Kentucky Community and Technical College System
300 North Main Street
Versailles, KY 40383
877.KCTCS.4U (toll-free)
877.528.2748
859.256.3100

KCTCS COLLEGES

Ashland Community and Technical College
ashland.kctcs.edu
800.928.4256 (toll-free)

Big Sandy Community and Technical College
bigsandy.kctcs.edu
888.641.4132 (toll-free)

Bluegrass Community and Technical College
bluegrass.kctcs.edu
866.774.4872 (toll-free)

Elizabethtown Community and Technical College
elizabethtown.kctcs.edu
877-246-2322 (toll-free)

Gateway Community and Technical College
gateway.kctcs.edu
859.441.4500

Hazard Community and Technical College
hazard.kctcs.edu
800.246.7521 (toll-free)

Henderson Community College
henderson.kctcs.edu
800.696.9958 (toll-free)

Hopkinsville Community College
hopkinsville.kctcs.edu
270.707.3700

Jefferson Community and Technical College
jefferson.kctcs.edu
502.213.5333

Madisonville Community College
madisonville.kctcs.edu
270.821.2250

Maysville Community and Technical College
maysville.kctcs.edu
606.759.7141

Owensboro Community and Technical College
owensboro.kctcs.edu
866.755.6282 (toll-free)

Somerset Community College
somerset.kctcs.edu
877.629.9722 (toll-free)

Southcentral Kentucky Community and Technical College
southcentral.kctcs.edu
855.246.2482 (toll-free)

Southeast Kentucky Community and Technical College
southeast.kctcs.edu
888.274.7322 (toll-free)

West Kentucky Community and Technical College
westkentucky.kctcs.edu
270.554.9200
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The KCTCS Catalog serves as the students’ guide to academic programs and services that our colleges provide. Students who enroll in an academic program should fulfill requirements as they exist at the time of such enrollment. If requirements change while the student is enrolled in a program, he/she may fulfill either the new or old requirements.

KCTCS makes every effort to include relevant, timely, and accurate information in the Catalog. However, KCTCS reserves the right to make changes in the calendar, admission policies, expenses, programs, curricula, course descriptions, or any other matters addressed or not addressed in this publication. Prospective students and enrolled students should check with college admission officers and academic advisers to learn of any changes. Also, some updates may be included in the online version of the Catalog located at kctcs.edu.
I’m so happy you’re considering improving your education and your life! My goal is for you not only to enter college, but also to complete college, and you’re taking that first important step by checking out the programs and classes we offer. With campuses close to you and hundreds of online offerings, I’m sure you’ll find just what you’re looking for.

You’re making a smart choice by choosing one of the 16 KCTCS colleges. Our tuition is the lowest in the state – less than half of what you’d pay at a four-year university. As you prepare to move forward in your higher ed journey, our faculty and staff will be there with you every step of the way. Our role is to make sure you succeed, so please let us know what we can do to help. If you have questions about anything you see in the catalog, how to enroll, financial aid or any other concern, contact the KCTCS college nearest you or call 1-877-KCTCS-4U (1-877-528-2748). Our Go KCTCS! call center never closes, so anytime you have a question, someone will be there to answer it. You’ll also find more information about our colleges at kctcs.edu.

On behalf of the entire KCTCS family of colleges, I wish you the best of luck in your educational endeavors.

Sincerely,

Jay K. Box, Ed.D.
President, KCTCS
History and Functions of KCTCS

The Kentucky Community and Technical College System (KCTCS) was created by the 1997 Kentucky Postsecondary Education Improvement Act. Since then, KCTCS has been on a journey of phenomenal growth and success.

KCTCS’ 16 statewide, two-year colleges provide quality postsecondary education and workforce training. The more than 70 campuses are strategically located across the Commonwealth, from Ashland to Paducah, from Covington to Bowling Green, all within a 30-minute drive of 95 percent of all Kentuckians.

KCTCS colleges confer three types of credentials upon students who complete credit programs — certificates, diplomas and associate degrees including: associate in arts, associate in science and associate in applied science —. There are more than 700 career-related programs offered by the System — many in high growth, high wage fields. Additionally, KCTCS is the largest provider of online learning in the state offering more than 77 online programs.

KCTCS programs target high growth industry sectors such as healthcare, manufacturing, energy, IT/business and transportation/logistics. KCTCS forges partnerships between colleges and businesses to provide Kentucky workers with the skills required today and to help industries and individuals develop the capabilities they will need tomorrow. It is the largest provider of workforce training, serving nearly 6,000 businesses in 2015.

Last year alone, KCTCS trained and educated:

- More than 116,000 credit-seeking students.
- 80 percent of Kentucky-trained firefighters.
- 69 percent of the state’s total allied health credentials.

KCTCS institutions offer a wide range of student services. Students are eligible for federal financial aid and a variety of need and merit-based scholarships. KCTCS colleges are also the best value in postsecondary education in Kentucky, with the lowest tuition in the Commonwealth.

Each KCTCS college has enhanced efficiency and service by consolidating functions, support services and programs and by pursuing single accreditation under the Commission on Colleges of the Southern Association of Colleges and Schools (SACS). Our mission is to improve the lives and employability of Kentuckians.

To learn more about KCTCS, visit kctcs.edu.

Mission Statement

Kentucky Community and Technical College System

The mission of KCTCS is to improve the employability and quality of life of Kentucky citizens as the primary provider of:

- College and Workforce Readiness.
- Transfer Education.
- Workforce Education and Training.

Academic Calendar

In order to be responsive to the needs of communities and students, KCTCS institutions offer terms in a variety of lengths from two weeks to 16 weeks. The two primary terms begin in August and January. The colleges offer shorter sessions within these two terms, allowing students the flexibility to schedule classes to best meet their needs. A variety of sessions from two to eight weeks are also available during the summer months.

All KCTCS colleges follow a common policy for establishing important dates within each session such as deadlines for adding and dropping classes and receiving refunds. Students should contact the Records/Admissions office at their local college for the local academic calendar.

The following closings are applicable to all KCTCS institutions:

July
- 4 Independence Day observed

September
- 5 Labor Day

November
- 24 Thanksgiving Day
- 25 Day After Thanksgiving

December
- 19 Institutional Closing
- 20 Institutional Closing
- 21 Institutional Closing
- 23 Institutional Closing
- 26 Institutional Closing
- 27 Institutional Closing
- 28 Institutional Closing
- 29 Institutional Closing
- 30 Institutional Closing

January
- 16 Martin Luther King Day

February
- 20 President’s Day

April
- 14 Good Friday (1/2 Day)

May
- 29 Memorial Day
KCTCS Leadership*

*This page reflects KCTCS leadership as of July 1, 2016

KCTCS Board of Regents
Ms. Marcia L. Roth, Chair
Dr. Gail R. Henson, Vice Chair
Ms. Carolyn E. “Betsy” Flynn, Secretary
Mr. Robert G. Cooper
Ms. Venus R. Evans
Dr. Angela Fultz
Ms. Mary R. Kinney
Mr. Barry K. Martin
Ms. Lacey B. Parham
Mr. Porter G. Peeples, Sr.
Mr. James Lee Stevens
Mr. Donald R. Tarter
Ms. Tammy C. Thompson
Mr. Mark A. Wells

Foundation Board of Directors
Raymond Daniels, Chair
Linda L. Rumpke, Treasurer
Barry S. Bishop, Secretary
F. Lee Hess, Immediate Past Chair
Anthony Campbell
Greg Higdon
Gregory G. Pauley
Phillip Bruce Leslie
Dr. C. Nelson Grote, Emeritus Member
Dr. Phil Neal, President Appointee
Marcia L. Roth, Ex-Officio Member
Dr. Jay K. Box, Ex-Officio Member
Timothy R. Burcham, CFRE, Ex-Officio Member

President
Dr. Jay K. Box

President’s Cabinet
Dr. Jay K. Box, President
Mr. Timothy R. Burcham, CFRE, Vice President
Dr. Paul B. Czarapata, Vice President
Ms. Beth R. Hilliard, Chief of Staff
Mr. Wendell A. Followell, Vice President
Dr. Gloria S. McCall, Vice President
Dr. Rhonda R. Tracy, Chancellor

College Leadership

Ashland Community and Technical College
Dr. Patricia K. Adkins
President/CEO

Big Sandy Community and Technical College
Dr. G. Devin Stephenson
President/CEO

Bluegrass Community and Technical College
Dr. Augusta A. Julian
President/CEO

Elizabethtown Community and Technical College
Dr. Thelma J. White
President/CEO

Gateway Community and Technical College
Dr. Fernando Figueroa
President/CEO

Hazard Community and Technical College
Dr. Jennifer Lindon
President/CEO

Henderson Community College
Dr. Kristin T. Williams
President/CEO

Hopkinsville Community College
Dr. Jay S. Allen
President/CEO

Jefferson Community and Technical College
Dr. Ty Handy
President/CEO

Madisonville Community College
Dr. Cynthia Kelley
President/CEO

Maysville Community and Technical College
Dr. Stephen Vacik
President/CEO

Owensboro Community and Technical College
Dr. Scott Williams
President/CEO

Somerset Community College
Dr. Jo Marshall
President/CEO

Southcentral Kentucky Community and Technical College
Dr. Phillip W. Neal
President/CEO

Southeast Kentucky Community and Technical College
Dr. F. Lynn Moore
President/CEO

West Kentucky Community and Technical College
Dr. Charles Chrestman
Interim President/CEO
Ashland Community and Technical College

Mission Statement/Status of Accreditation
Ashland Community and Technical College, a member of the Kentucky Community and Technical College System, is a public, two-year degree granting institution located in Northeast Kentucky. The College supports a variety of excellent associate degree, diploma, and certificate programs with a tradition of accessible, affordable, and quality education. The College prepares students for transfer to baccalaureate programs or entry into the workforce, and has a strong commitment to meet their academic, workforce training, and lifelong learning needs.

Teach with excellence. Serve with passion. Learn for life.

Ashland Community and Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Ashland Community and Technical College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula
Occupational/Technical Curriculums: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

- Air Conditioning Technology (C, D)
- Appalachian Studies (C)
- Applied Process Technologies (C, A)
- Automotive Technology (C, D)
- Business Communications (C)
- Business Foundations (C)
- Business Studies:
  - Administrative Office Technology (C, D, A)
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
  - Computer Aided Drafting and Design (C, D)
  - Computer and Information Technologies (C, D)
  - Computerized Manufacturing and Machining (C, D)
  - Cosmetology (C, D)
  - Criminal Justice (A, C)
  - Culinary Arts (C, D, A)
  - Dental Assisting (D)
  - Diesel Technology (C, D)
  - Emergency Medical Services – Paramedic (C, D)
  - Emergency Medical Technician (C)
  - Fire/Rescue Science Technology (C, D, A)
  - General Occupational/Technical Studies (A)
  - Health Science Technology (A)
  - Interdisciplinary Early Childhood Education (C, D, A)
  - Manufacturing Industrial Technology:
    - Electrical Technology (C, D)
    - Industrial Maintenance Technology (A, C, D)
  - Medical Assisting (C)
  - Nursing (A)
  - Pharmacy Technology (C, D)
  - Practical Nursing (C, D)
  - Respiratory Care (A)
  - Surgical Technology (D)
  - Welding Technology (C, D)

Contact Information
Ashland Community and Technical College
1400 College Drive
Ashland, KY 41101
(606) 326-2000, (800) 928-4256
ashland.kctcs.edu

College Drive Campus (CDC)
Roberts Drive Campus (RDC)
Technology Drive Campus (TDC)

General Information
- Admissions (606) 326-2413
- Advising Center (606) 326-2228
- Adult Education and Literacy (606) 326-2457
- Business Office (606) 326-2041
- Center for Community, Workforce and Economic Development (606) 326-2129
- Community and Technical College Foundation (606) 326-2071
- Disability Services (606) 326-2051
- Financial Aid (606) 326-2198
- Human Resources (606) 326-2044
- Library (606) 326-2169
- Lifelong Learning (606) 326-2072
- Public Relations (606) 326-2134
- Records (606) 326-2035
- Veterans Affairs (606) 326-2275
- Website (webmaster) (606) 326-2090

Administration
- President – Dr. Kay Adkins (606) 326-2043
- Dean of Academic Affairs – Dr. Janie Kitchen (606) 326-2162
- Associate Dean of Academic Affairs – Dr. Keith Brammell 606-326-2426
- Dean of Business Affairs – Karen Blevins (606) 326-2063
- Dean of Resource Development and External Affairs – Willie McCullough (606) 326-2068
- Dean of Institutional Planning, Research and Effectiveness – Steve Flouhouse (606) 326-2055
- Dean of Public Services – John McGlone (606) 326-2400
- Dean of Student Affairs – Steven Woodburn (606) 326-2077
- Associate Dean of Advising and Student Retention – Cris McDavid (606) 326-2003
- Associate Dean of Information Technology – Farnoosh Rafiee (606) 326-2069
- Associate Dean of Admissions and Records/Registrar – (606) 326-2064
Director of Financial Aid — Robin Lewis (606) 326-2423
Director of Cultural Diversity — Al Baker (606) 326-2422
Division of Business Education, Social Sciences and Technology – Molly Webb (606) 326-2231
Acting Division of Health Sciences – Janie Kitchen (606) 326-2163
Division of Humanities – (606) 326-2142
Division of Manufacturing, Transportation and Industrial Technologies – Dr. Keith Brammell (606) 326-2426
Division of Math and Natural Sciences – Dr. Nicole Griffith-Green (606) 326-2236

Faculty

Allen, Joseph D, Instructor, MSN, Chamberlain College of Nursing, 2015
Alley, Alan C, Assistant Professor, DC, Palmer College of Chiropractic, 1998
Bailey, Danny G, Professor, MS, University of Kentucky, 1971
Bayes, Nenna L, Professor, MA, Morehead State University, 2001
Blair, Kathy L, Assistant Professor, MSN, University of Phoenix, 2012
Boyes, Christopher J, Associate Professor, AAS, Institute of Electronics Technology, 1992
Borders III, Andrew J, Associate Professor, MS, Southwestern Baptist Theological Seminary, 1989
Bowman, Curtis D, Professor, Certification, Collins Career Center, 1979
Bradley, Belinda, Associate Professor, AAS, Southern West Virginia Community and Technical College, 2007
Bradley, John M, Associate Professor, Certification, National Institute for Automotive Service Excellence, 1999
Bradley, Peggy L, Associate Professor, BS, Morehead State University, 1979
Brammell, Keith, Professor, DMD, University of Kentucky, 1985
Brown, Sara A, Associate Professor, MSL, University of Kentucky, 2003
Bryant, Sheree Nicole, Associate Professor, BUS, Morehead State University, 2010
Cassady, Jeffrey M, Instructor, AAS, Ashland Community and Technical College, 2013
Cavins, Jacqueline L, Associate Professor, BS Morehead State University, 2002
Childress, David C, Associate Professor, Morehead State University, 1985
Conley, Richard R, Professor, MS, University of Kentucky, 1973
Cooksey, Daniel P, Associate Professor, MS, Marshall University, 1979
Cullum, Randolph, Associate Professor, MA, Marshall University, 1981
Davis, John Mark, Associate Professor, MBA, Morehead State University, 1985
Davis, Virgil K, Professor, MA, Morehead State University, 1986
Edwards, Kathryn Hareucci, Professor, MA, Marshall University, 1991
Kiser, Joshua L, Instructor, Certified Welder, 2009
Figgins, Edward E, Associate Professor, BA, Morehead State University, 1988
Flath, Mary C, Professor, PhD, Medical University of South Carolina, 1991
Floodhouse, Steven D, Professor, MS, Marshall University, 1991
Fosson, Woodrow, Instructor, Associate of Applied Technology, ACTC, 2001
Fosterwelsh, Wendy, Professor, MFA, Georgia Southern University, 2004
Fratilie II, Donald L, Associate Professor, JD, University of Kentucky, 1974
Frye, Bettie E, Professor/Librarian I, MLS, University of South Carolina, 1989
Griffith-Green, Nicole, Associate Professor, EdD, University of the Cumberlands, 2015
Hall, James C, Instructor, MA, University of Louisville, 2014
Hall, Ralfred J, Professor, MS, Morehead State University, 1993
Henderson, Rachel, Assistant Professor, MSN, Chamberlain College of Nursing 2012
Henry, Harold Edmond, Associate Professor, AAS, Ashland Technical College, 2002
Howard, Warren H, Associate Professor, MA, Morehead State University, 2003
Howerton, Deena, Instructor, BSN Bellarmine College 2002
James, Jesse J, Assistant Professor, AAS, Ashland Community and Technical College, 2010
Johns, Robin D, Instructor, AME, Morehead State University, 1987
Joy, Jonathan, Instructor, MA, Marshall University, 2004
Justice, Debra, Associate Professor, MA, Marshall University, 1997
Kitchen, Janie R, Professor, PhD, Case Western Reserve University, 2011
Klinepeter, Pamela, Associate/Librarian II, MLS, University of Kentucky, 2005
Kumar, Ramamurthy Chandra, Professor, MS, Florida Institute of Technology, 1986
Mahan, Daniel, Associate Professor, MA, Samford University, 1984
Martin, Frances, Assistant Professor, AME, Morehead State University, 1994
McCarty, Shannon, Associate Professor, Certificate, Collins Career Center, 1990
McCullough, Willie G, Associate Professor, MA, Marshall University, 1981
McCumbee, Jame, Assistant Professor, MA, Marshall University, 1995
McDavid, Cristina C, Professor, MBE, Morehead State University, 1987
McGinnis, Elizabeth, Associate Professor, MSN, University of Phoenix, 2014
McGinnis, Vicki, Assistant Professor, MA, University of Kentucky, 1994
McGone, John K, Associate Professor, MS, Morehead State University, 1994
Mengiusta, Aschalew, Assistant Professor, PhD, University of Wales College of Medicine, 2002
Merritt, Richard P, Assistant Professor, MA, Marshall University, 2011
Mohabibian, Hossein, Professor, MA, Marshall University, 1983
Music, Stephen L, Assistant Professor, AAS, Big Sandy Community and Technical College, 2012
O’Pell, Donald Ray, Professor, MS, Marshall University, 1984
Rafie, Farnoosh, Professor, MA, Marshall University, 1982
Ratiff, Terri Lynn, Assistant Professor, BSN, Marshall University, 1993
Riggs, Mark, Assistant Professor, MS, Mississippi State University, 2000
Roark, Mary L, Assistant Professor, MSN, Bellarmine University, 2007
Robinson, Natalie, Assistant Professor, MSN, Bellarmine University, 2007
Schmidt, James C, Professor, PhD, Cincinnati, 1976
Sergent, William K, Instructor, BS, Liberty University, 2005
Shelton, Cynthia, Associate Professor, AME, Marshall University, 1992
Shortridge, Mary E, Professor, MA, Morehead State University, 1982
Skidmore, Ashley, Assistant Professor, MA, University of Kentucky, 2006
Smith, Mark S, Instructor, BS, Morehead State University, 1999
Smith, Mourine k, Instructor, AAS, Somerset Community College, 2010
Stevens, Tyler B, Instructor, AAS, Ashland Community and Technical College, 2009
Swetnam, Mark R, Professor, MA, University of Kentucky, 1990
Tackett, Michael B, Instructor, AS, Ashland Community and Technical College, 2008
Thornton, Jack D, Associate Professor, AAS, Columbus State University, 1986
Tusey, Laura L, Assistant Professor, MA, Marshall University, 2000
Wallace Vernatter, Susan Y, Instructor, BS, Bellevue University, 2008
Webb, Molly J, Associate Professor, MBA, Bellarmine College, 1982

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Mission Statement/Status of Accreditation

Big Sandy Community and Technical College provides accessible quality educational opportunities for student success, promotes economic growth and enhances the quality of life of its constituents.

Big Sandy Community and Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Big Sandy Community and Technical College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

- Air Conditioning Technology (C, D, A)
- Applied Engineering Technology (C)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, A)
- Broadband Technology (A)
- Business Communications (C)
- Business Foundations (C)
- Business Studies:
  - Administrative Office Technology (C, D)
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
- Civil Engineering Technology (A)
- Computer Aided Drafting and Design (C, D)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D, A)
- Construction Technology (C, D)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Culinary Arts (C, D)
- Dental Assisting/Dental Hygiene (D, A)
- Diesel Technology (C, D)
- Emergency Medical Technician (C)
- Energy Technologies (C)
- Engineering and Electronics Technology (C, D, A)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Health Science Technology (A)
- Human Services (C, A)
- Interdisciplinary Early Childhood Education (C)
- Manufacturing Engineering Technology (C)
- Manufacturing Industrial Technology:

- Electrical Technology (C, D, A)
- Industrial Maintenance Technology (C, D, A)
- Masonry (C, D)
- Mining Technology (C, A)
- Motorcycle Technology (C, A)
- Nursing (A)
- Nursing Assistant—Advanced (C)
- Physical Therapist Assistant (A)
- Practical Nursing (C, D)
- Plumbing (C)
- Respiratory Care (C, A)
- Surgical Technology (D, A)
- Surveying & Mapping Technology (C, D, A)
- Truck Driver Training (C)
- Visual Communication
  - Design and Technology (C, D, A)
  - Multimedia (C)
  - Printing (C, D)
- Welding Technology (C, D, A)

Contact Information

Prestonsburg Campus

1 Bert Combs Drive
Prestonsburg, KY 41653
(606) 886-3863
bigsandy.kctcs.edu

Pikeville Campus

120 South Riverfill Drive
Pikeville, KY 41501
(606) 218-2060
bigsandy.kctcs.edu

Mayo Campus

513 Third Street
Paintsville, KY 41240
(606) 789-5321
bigsandy.kctcs.edu

Hager Hill Campus

150 Industrial Park Road
Hager Hill, KY 41222
(606) 789-5321
bigsandy.kctcs.edu

General Information

606-886-3863 or 1-888-641-4132
(Toll free – outside of Floyd, Johnson & Pike counties)

Academic Affairs (Program Information) (606)886-7342
Admissions & Records Office (606) 886-3863 Option 2
Business Office 1-855-G0-BSCTC (1-855-462-7282)
Center for Student Engagement (606) 889-4840
Career Education & Workforce Development (606) 218-1276
Disability Services (606)886-7359
Financial Aid 1-855-G0-BSCTC (1-855-462-7282)
Library (606)889-4834
Marketing and Communications (606) 889-4703
President’s Office (606) 886-7332
Security (606) 886-7335
Student Services (606) 889-4822
Website (606) 886-7395
Administration

President
Dr. Devin Stephenson
Chief Institutional Officer
Bobby McCool
Chief Business Affairs Officer
Michelle Meek
Interim Chief Academic Officer
Myra Elliott
Dean of Career Education & Workforce Development
Kelli Hall
Dean of Institutional Effectiveness and Institutional Research
Dr. Chris Daniel
Dean of Student Services
Jimmy Wright
Director of Enrollment Management
Billie Jean Cole
(606) 889-4808
Director of Advising
Susan Chafin
(606) 889-4840
Director of East Kentucky Science Center and Planetarium
Steven L. J. Russo
(606) 889-4809
Director of Facilities, Safety and Auxiliary Services
John Herald
Director of Financial Aid
Cathy Hard-Crank
1-855-GO-BSCTC
Director of Fine Arts
Clayton Case
(606) 886-7388
Director of Human Resources
Bryan L. Goble
(606) 889-4724
Director of Library Services
Kathy Lowe
(606) 889-4748
Director of College Relations
Joshua L. Ball
(606) 889-4703
Facilities Management Specialist
Emma Jean Howard McCoy
(606) 889-4710

Faculty

Adam, Kelly J, Professor, MS, Southern Connecticut University, 1993
Akhlaghian, Mohammad R, Professor, PhD, University of Oregon, 1978
Allen, Collista, Associate Professor, MSN, University of Phoenix, 2013
Azeem, Arif, Professor, MS, Western Michigan University, 1982
Baldridge, Harold, Assistant Professor, BS, University of Kentucky, 1968
Ball, Tammy, Professor, MA, University of Louisville, 1996
Barlow, Donald L., Associate Professor, PhD, Ball State University, 1987
Bays, Leslie M, Assistant Professor, MA, Morehead State University, 2010
Bell, Daniel E, Professor, MA, Northern Illinois University, 1986
Bennin, Hope E, Professor, MA, University of Wisconsin, 1987
Bowman, William, Instructor/Librarian IV, MS, University of Kentucky, 2008
Brooks, Michael Aaron, Instructor, Diploma, Mayo State Vocational-Technical School, 1993
Burchett, Nicole, Associate Professor, MSN, Northern Kentucky University, 2015
Cantrill, Eta L, Professor, MHE, Morehead State University, 1985
Carroll, Charlene, Assistant Professor, MSN, University of Kentucky, 1996
Carroll, John, Professor, MA, Morehead State University, 1999
Chafin, Susan K, Professor, MBE, Morehead State University, 1989
Cole, Elizabeth M, Professor, MA, University of Iowa, 1989
Compton, Joseph L, Professor, BS, Morehead State University, 2013
Conn, Stephanie, Assistant Professor, BS, Eastern Kentucky University, 1997
Daniel, Christopher A, Professor, EdD, Liberty University, 2013
Dempsey, Jeremy, Associate Professor, MA, Marshall University, 2005
DeRossett, Kimberly R, Professor, BSN, Eastern Kentucky University, 1984
Dickerson, Cindy, Associate Professor, MA, Morehead State University, 2008
Dixon, Eric, Associate Professor, DMD, University of Kentucky, 1993
Durham, Roberta, Assistant Professor, BSN, Morehead State University, 2009
Elliott, Myra T, Professor, MSN, University of Kentucky, 1993
Fields, Carmen, Associate Professor, BS, Western Kentucky University, 2013
Fields, Michelle, Associate Professor, MA, Marshall University, 1995
Fitzpatrick, John J, Assistant Professor, BS, Morehead State University, 2013
Gambill, Jessica, Assistant Professor, MA, Union College, 2004
Gillis, Bill R, Professor, PhD, Florida State University, 1990
Hackney, Randal Clinton, Assistant Professor, MS, Morehead State University, 2007
Hall, Joshua, Assistant Professor, BA, Alice Lloyd College, 2004
Hall, Laura R, Associate Professor, MA, Morehead State University, 2004
Haney, Randell O, Professor, BS, Morehead State University, 2011
Harless, Irma Kay, Associate Professor, BSN, Morehead State University, 2013
Herald, Kristen, Associate Professor, MS, Western Kentucky University, 2012
Hicks, Jeffrey T, Professor, MA, Morehead State University, 2000
Howard, Jerry, Associate Professor, MA, Union College, 2006
Howell, Judy K, Professor/Library I, MA, University of Kentucky, 1992, MS, University of Kentucky, 1994
Jackson, Patry S, Professor, DNP, University of Kentucky, 2008
Jacobs, Sabra P, Professor, MA, Bowling Green State University, 1989
Jennings, Kitty, Associate Professor, AME, Morehead State University, 2006
Keathley, Heath, Assistant Professor, AAS, Big Sandy Community & Technical College, 2013
Lawson, Dianna, Associate Professor, MSN, University of Kentucky, 1997
LeBrun, Terri E, Professor, MS, Morehead State University, 2009
Leedy, Jennifer L, Associate Professor, EdD, Morehead State University, 2013
Lewis, Lori Deanne, Professor, BS, Morehead State University, 2011
Little, Conda G, Professor, MA, Morehead State University, 2001
Lowe, Kathy, Associate Professor/Director of Library Services, MS, Florida State University, 2005
Madden, Darrell E, Associate Professor, MBA, University of Kentucky, 1980
McKenzie, Cynthia L, Professor, MBA, Morehead State University, 2001
Matijasic, Thomas D, Professor, PhD, Miami University, 1982
Maynard Jr, John L, Associate Professor, AAS, Big Sandy Community & Technical College, 2008
McClure, Jimmy, Associate Professor, BS, Morehead State University, 2011
McKenzie, Keithen Douglas, Professor, MS, Morehead State University, 2003
McKenzie, Marsha, Associate Professor, MA, Morehead State University, 2012
McKenzie, Vanessa Jean, Professor, MS, Morehead State University, 2005
Miller, Kathryn L, Professor, EdD, Morehead State University, 2015
Moore, Charles K, Associate Professor, AAS, Big Sandy Community & Technical College, 2007
Mullins, Rebecca Ann, Professor, MA, Morehead State University, 2003
Music, Lisa J, Professor, PhD, University of Louisville, 2013
Ousley, Tina Lee, Professor, MS, Morehead State University, 2003
Pack, Diana L, Professor, AME, Morehead State University, 2003
Pixley, Jane L, Associate Professor, MA, Radford University, 2004
Profitt, Alan David, Professor, DMin, Ashbury Theological Seminary, 2014
Ramey, Charlotte, Associate Professor, BA, University of Kentucky, 1993
Ratliff, Teddie, Assistant Professor, MSN, Kaplan University, 2010
Ray, Pamela, Associate Professor, BS, Western Kentucky University, 2013
Rodenberg, Shavna, Lecturer, MFA, Bennington College, 2012
Roe, Richard T, r Lecturer, EdD, University of Kentucky, 2011
Saad, Sandra, Associate Professor, MA, University of Kentucky, 1987
Saad, Toufic A, Professor, MS, University of Kentucky, 1988
Skeens, Melissa B, Professor, BA, Morehead State University, 2010
Sione, Greta, Associate Professor, MA, Trinity College, 2003
Smith, Dwight P, Professor, MA, Bowling Green State University, 1979
Smith, Matthew, Associate Professor, MA, East Tennessee State University, 2009
Smith, Timothy, Associate Professor, MFA, University of North Carolina at Greensboro, 1993
Sooy, Agus, Associate Professor, PhD, University of Kentucky, 2004
Stewardson, Forrest J, Professor, BS, Morehead State University, 1992
Sykes, Pamela J, Professor, MA, Morehead State University, 2002
Thacker, Joshua, Associate Professor, MA, Morehead State University, 2002
Thomas, Shirley L, Professor, PhD, University of Louisville, 1993
Thompson, Paul D, Professor, PhD, Oregon State University, 1991
Thompson, Paula B, Professor, MBE, Morehead State University, 2002
Turner, Garrison, Assistant Professor, MS, Ball State University, 2011
Valade, Judith E, Professor, MA, Texas A & M Corpus Christi, 2002
Vanhoose II, Charles W., Associate Professor, AAS, Big Sandy Community & Technical College, 2012
Vanhoose, David, Assistant Professor, AAS, Big Sandy Community & Technical College, 2008
Varney, Lesley Dean, Assistant Professor, BS, Eastern Kentucky University, 1980
Vierheller, Chenzhao, Professor, PhD, Ohio University, 1991
Vierheller, Thomas L, Professor, PhD, Ohio University, 1990
Wagner, Kathy A, Professor, MS, Kansas State University, 1974
Wallen, Mary Stepp, Professor, MA Indiana State University, 1997
Wagner, Thomas, Assistant Professor, MA, Morehead State University, 2003
Wallace, Robert, Professor, MA, Union College, 2006
Watson, Fallon, Assistant Professor, PsD, University of the Rockies, 2013
Watts, Randall L, Professor, MS, Eastern Kentucky University, 1991
Wells, Mark A, Professor, MA, Eastern Kentucky University, 1997
Bluegrass Community and Technical College

Mission Statement/Status of Accreditation

Bluegrass Community and Technical College (BCTC) transforms the Bluegrass Region - one student at a time, one employer at a time, one community at a time.

With students at the heart of our mission, BCTC supports access, success, and completion of educational goals through comprehensive and responsive programs and services at campuses across the region and through distance learning. With strong partnerships and excellence in teaching and learning, BCTC:

• Provides a skilled workforce, through high-quality career and technical programs, workforce training, and continuing education.
• Prepares students to transfer for baccalaureate degrees, through general education and literacy and life skills development.

BCTC promotes regional economic vitality and quality of life through diversity and inclusion, cultural and global awareness, critical thinking, civic responsibility, professional competence, and sustainability.

BCTC is a member college of the Kentucky Community and Technical College System and awards associate degrees, diplomas, and certificates.

Bluegrass Community and Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Bluegrass Community and Technical College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Transfer Curricula/Art Related

An Associate in Fine Arts (AFA) degree is designed to transfer into a Baccalaureate of Fine Arts (BFA) program at a four-year institution. Individual Associate in Fine Arts (A) degree curricula in each group is noted by an A in parenthesis.

Digital Cinematic Arts (A)
Theatre (A)

Occupational/Technical Curricula

Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D) and Associate in Applied Science (A) degree curricula in each group are noted by C, D and A in parenthesis.

Air Conditioning Technology (C, D, A)
Architectural Technology (A)
Automotive Technology (C, D, A)
Biotechnology Laboratory Technician (C, A)
Business Studies:
  Administrative Office Technology (C, D, A)
  Business Administration Systems (C, A)
  Medical Information Technology (C, D, A)

Civil Engineering Technology (A)
Computer Aided Drafting and Design (C, D, A)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D, A)
Cosmetology (C, D)
Criminal Justice (C, A)
Dental Hygiene (A)
Education (A)
Emergency Medical Services – Paramedic (C)
Emergency Medical Technician (C)
Energy Technologies (C)
Engineering and Electronics Technology (C, D, A)
Environmental Science Technology (A)
Environmental Technology (C)
Equine Studies (C, D, A)
Emergency Medical Technician (C)
Filmmaking Script to Screen (C)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Information Technology (C, A)
Human Services (C, A)
Information Management and Design (A)
Integrated Engineering Technology (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  Electrical Technology (C, D, A)
  Industrial Maintenance Technology (C, D, A)
Medical Assisting (C, D, A)
Nuclear Medicine and Molecular Imaging Technology (A)
Nursing (A)
Pharmacy Technology (D)
Practical Nursing (C, D)
Radiography (A)
Real Estate (C)
Respiratory Care (C, A)
Security Management (C)
Surgical Technology (A)
Welding Technology (C, D, A)

Contact Information

Cooper Campus
470 Cooper Drive
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(859) 246-6200
bluegrass.kctcs.edu

Leestown Campus
164 Opportunity Way
Lexington, KY 40511-2623
(859) 246-6200
bluegrass.kctcs.edu

Newtown Campus
500 Newtown Pike
Lexington, KY 40508-1207
(859) 246-6200
bluegrass.kctcs.edu
Gross, Claude R, Assistant Professor, MS, Eastern Kentucky University, 2009
Hackney, Sandra M, Associate Professor, AAS, Lexington Community College, 1996
Hagan, Kelly, Associate Professor, MA, Ball State University, 1992
Haggerty, Robin, Professor, MA, Indiana University of Pennsylvania, 1993
Halcomb, Don Anthony, Associate Professor, MS, University of Kentucky, 2005
Haley, Rebecca J, Professor, MA, Eastern Kentucky University, 2002
Hardin, Michael, Assistant Professor, BS, Eastern Kentucky University, 1993
Hardwick, Donald Gordon, Associate Professor, MBA, Xavier University, 1981
Hayes, Dixie, Instructor, BA, Midway College, 2008
Hayes, Susan, Associate Professor, MSN, Wichita State University, 1999
Healander, Beth J, Professor, MEd, University of Minnesota, 1996
Herrin, Jeffrey, Assistant Professor, MAT, Eastern Kentucky University, 2002
Hinkle, Robert R, Professor, MA, University of Kentucky, 2000
Hooistra, Joshua M, Professor, MA, University of Colorado, 2003
Holderman, Staci, Associate Professor, MA, Eastern Kentucky University, 2004
Holt, Deborah Jones, Professor, MS, University of Kentucky, 1995
Hopper, Kevin R-Professor, PhD, University of Kentucky, 1998
Houghton, Lori, Professor, MA, Eastern Kentucky University, 1995
Howell, Gary, Instructor, BS, Liberty University, 2010
Huddleston, Angela, Associate Professor, MS, Eastern Kentucky University, 2011
Humble, Jeanne Sue, Associate Professor, MA, University of Kentucky, 1970
Hunt, Andrew Franklin, Associate Professor, MEd, University of Kentucky, 2006
Inge, Cynthia O, Associate Professor, PhD, University of Kentucky University, 2007
Jackson, Jean Caldwell, Professor, PhD, University of Sheffield, 1980
Jensen, Kevin, Assistant Professor, BA, Brigham Young University, 1987
Jent, Ashley, Instructor, AAS, Bluegrass Community and Technical College, 2010
Jett-Seals, Arion, Instructor, MA, University of Louisville
Johnson, Steven I, Associate Professor, AAS, Central Kentucky Technical College, 2002
Johnson, Tanya R, Assistant Professor, BA, University of Kentucky, 1992
Jones, Jenny, Associate Professor, MBA, Eastern Kentucky University, 1996
Jones, Mary W, Associate Professor, MS, Eastern Kentucky University, 2013
Kalala, Nkongolo, Associate Professor, PhD, University of Kentucky, 1995
Kavanaugh, Susan C, Professor, MEd, University of Kentucky, 1981
Kelly, Ryan S, Professor, MS, Florida State University, 1995
King, Angela M, Professor, MA, University of South Carolina, 2000
King, Richard N, Professor, MS, University of Kentucky, 1994
Klosterman, Lesley, Instructor, BS, The Ohio State University, 2003
Knight, Brandon, Associate Professor, MA, Texas Tech University, 1998
Knuckles, Tracy Lyn, Professor, MS, University of Indiana, 1998
Kolasa, James Reif, Professor, MS, University of Kentucky, 1994
Lanier, Rebecca A, Associate Professor, MEd, University of Kentucky, 1992
Lefler, Patricia Sue, Professor, PhD, University of Indiana, 2004
Leon, Ana E, Professor, MS, Jacksonville State University, 1987
Leonard, Cecilia, Instructor, AS, Eastern Kentucky University, 1987
Lewis, Michelle, Instructor, BSN, Eastern Kentucky University, 2016
Liles, Tammy Jo, Professor, MS, University of Kentucky, 1994
Lincoln, Daniel, Assistant Professor, Savannah College of Art and Design, 2016
Long, Jarvis, Instructor, BBA, Eastern Kentucky University, 1974
Lynch, Laura, Assistant Professor, MS, Eastern Kentucky University, 2006
Madison, Lynn H, Associate Professor, MA, Georgetown College, 1987
Macee, David A, Professor, MBA, University of Cincinnati, 1981
Matchunky, James K, Associate Professor, BS, University of Indiana, 1987
Matthews, Holly, Instructor, BSN, University of Kentucky, 1996
Mayer, Danny, Associate Professor, PhD, University of Kentucky, 2007
Mayo, Karen, Associate Professor, PhD, University of Kentucky, 2015
McCane, Rebecca, Associate Professor, MS, Morehead State University, 1988
Miller, Kausha C, Professor, MNS, Southeast Missouri State University, 2000
Miller, Patricia P, Professor, MAEd, University of Kentucky, 1994
Miriti, Landrea A, Professor, MA, Montclair State University, 1988
Motsamed, Hossein, Associate Professor, MA, University of Kentucky, 1996
Mullins, Larry McDowell, Associate Professor, MS, Eastern Kentucky University, 1973
Murphy, Donna LJ, Professor, MHE, Morehead State University, 1982
Murphy, William Kevin, Associate Professor, MBA, University of Kentucky, 1991
Otierno, Idah Aoko, Professor, PhD, University of Kentucky, 2012
Papanicolaou, Thomas, Associate Professor, MS, University of Kentucky, 1994
Partin, Vicki D, Professor, MS, University of Kentucky, 1981
Pellrey, DeAnna S, Associate Professor, MS, Eastern Kentucky University, 2005
Pellrey, Holly Joyce, Associate Professor, MEd, University of Kentucky, 1993
Perry Jr, Clovis C, Associate Professor, MA, Western Kentucky University, 1985
Pevley, Jennifer, Professor, MAEd, Eastern Kentucky University, 2007
Pettet, William "Ralph", Associate Professor, MA, Eastern Kentucky University, 2014
Puckett, Cheryl L, Associate Professor, MSN, Eastern Kentucky University, 2000
Ramsey, Tammy Jones, Associate Professor, MFA, Spalding University, 2004
Reiford, LaVetta, Assistant Professor, MS, Midwestern University, 2001
Richardson, Kathleen E, Professor, MALIS, Rosary College, 1983
Rickert, Gregory W, Professor, MA, University of Kentucky, 1992
Rigney, Leif E, Associate Professor, MA, Eastern Kentucky University, 2001
Ripley, Michael Bret, Professor, MA, Eastern Kentucky University, 1990
Roberts, Danny D, Instructor, AAS, Central Kentucky Technical College, 2004
Robertson, Allan S, Associate Professor, MS, University of Louisville, 2008
Robertson, Mary Ellen, Instructor, MSN, Benedictine University, 2013
Roemmle, Lise I, Professor, MSN, State University of New York at Stony Brook, 1997
Rogers, Thomas Foster, Professor, M.A., University of Kentucky, 2007
Ross-Brown, Kimberly, Associate Professor, MA, University of Nebraska, 1996
Rouse, Mary Goza, Associate Professor, MS, Florida State University, 1979
Rutherford, Maria, Associate Professor, MA, Regent University, 2006
Saladin, Todd, Instructor, BS, University of Kentucky, 1994
Salleo, Melanie D, Associate Professor, BSN, University of Kentucky, 1991
Sauer, Sara, Instructor, BS, University of Kentucky, 2009
Saunier, Margaret E, Professor, PhD, University of Kentucky, 1987
Schuman, Daniel B, Professor, PhD, University of Kentucky, 2002
Scott Jr, John C, Associate Professor, MA, Eastern Kentucky University, 1990
Shear, Susan Knox, Assistant Professor, MHA, University of Kentucky, 1994
Shelton, Becky, Instructor, M.Ed., Indiana Wesleyan, 2004
Simms, Ruth A, Professor, MS, Eastern Kentucky University, 1995
Simpson, Zachary, Assistant Professor, BHS, University of Kentucky, 2011
Simrongkhan, Barbara, Assistant Professor, M.Ed., University of Arizona, 1987
Sloan, Perry, Instructor, AAS, Bluegrass Community and Technical College, 2003
Smoot, Richard C, Professor, PhD, University of Kentucky, 1988
Snyder, William D, Associate Professor, DMD, University of Kentucky, 1993
Spencer, Janella, Professor, MEd, University of Kentucky, 1992
Steel, Brian, B.A, Instructor, University of Kentucky, 1990
Stone, Steven A, Associate Professor, MSIS, University of Illinois, Urbana-Champaign, 1991
Story, John E, Associate Professor, PsyD, Forest Institute of Professional Psychology, 1991
Strobel, Norman E, Professor, PhD, Cornell University, 1989
Sturgill, David, Assistant Professor, BS, University of Kentucky, 1995
Sullivan-Davis, Deborah, Associate Professor, PhD, University of Kentucky, 2003
Swango, Kathleen, Associate Professor, MA, Morehead State University, 1982
Thompson, Janie, Associate Professor, MSN, University of Kentucky, 1999
Todd, Adrienne H, Assistant Professor, MA, Eastern Kentucky University, 1997
Tucker, Cindy, Professor, MS, University of Kentucky 1999
Turner, Paul A, Professor, MS, University of Kentucky, 2008
Unruh, Timothy J, Associate Professor, BS, University of Louisville, 1996
Watts, Jean, Associate Professor, MEM, Duke University, 1987
Webb, Dixie, Assistant Professor, MSN, University of Kentucky, 1977
Webster-Little, Stacy, Professor, MA, University of Nebraska Lincoln, 1996
Welch, Mark A, Professor, BS, Eastern Kentucky University, 1991
Wheeler, Yules, Associate Professor, MA, Campbellsville College, 2008
White, Steven J, Professor, PhD, University of Illinois, 1990
White, Tanya, Associate Professor, MA, University of Kentucky, 1971
Whitescarver, Shirley Ann, Professor, PhD, University of Kentucky, 1987
Williams, Laura A, Associate Professor, MA, Eastern Kentucky University, 1997
Williams, Myra L, Associate Professor, MSN, University of Kentucky, 1991
Williamson, Melanie Gail, Professor, MS, University of Kentucky, 2005
Wilson, Vicki Kegley, Professor, MA, University of Kentucky, 1982
Wiseman, Jackie, Professor, MS, Eastern Kentucky University, 1988
Womack, Becky J, Professor, MA, University of Mississippi, 1975
Wyatt, Nelda K, Associate Professor, EdD, University of Kentucky, 1999
Zeps, Valdis J, Associate Professor, PhD, University of Washington, 1989
Mission Statement/Status of Accreditation

Elizabethtown Community and Technical Collage (ECTC) is a comprehensive, open-access, public associate degree granting institution, responding to and serving the needs of our diverse communities. ECTC prepares people to live and work in a constantly changing world through dynamic teaching and learning environments.

Elizabethtown Community and Technical College is a member of the Kentucky Community and Technical College System.

Mission Accomplished by Providing:

• Associate in Arts and Associate in Science degree programs which provide students with the opportunity to complete the first two years of a baccalaureate degree.
• Associate in Applied Science degree, diploma and certificate programs as well as courses to prepare individuals to excel in a complex workforce.
• Continuing and life-long educations, short-term customized training for business and industry designed to strengthen the workforce and expand the life skills, knowledge, and the cultural enrichment of the community.
• Developmental Education courses to prepare individuals for success in transfer and technical courses.
• Associated services that support student development and success such as academic advising, library services, learning labs, assessment, career counseling, and cultural enrichment activities, among others.

Elizabethtown Community and Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Elizabethtown Community and Technical College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

Advanced Nursing Assistant (C)
African American Studies (C)
Air Conditioning Technology (C, D, A)
Apprenticeship Studies (A)
Automotive Technology (C, D, A)
Business Studies:
  Administrative Office Technology (C, D, A)
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D, A)

Computer Aided Drafting and Design (C, D, A)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D, A)
Criminal Justice (C, A)
Culinary Arts (C, D, A)
Diesel Technology (C, D, A)
Education (A)
Emergency Medical Technician (C)
Engineering and Electronics Technology (C, D, A)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Global Studies (C)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  Electrical Technology (C, D, A)
  Industrial Maintenance Technology (C, D, A)
Nursing (A)
Plumbing Technology (C, D, A)
Practical Nursing (C, )
Radiography (A)
Real Estate (C)
Respiratory Care (C, A)
Welding Technology (C, D, A)

Contact Information

Elizabethtown Community and Technical College
600 College Street Road
Elizabethtown, KY 42701
(270) 769-2371
(877) 246-2322 (toll-free)
elizabethtown.kctcs.edu

Fort Knox Site
1174 Dixie Street
Fort Knox, KY 40121
(270) 706-8858

Springfield Campus
160 Corporate Drive
Springfield, KY 40069
(850) 336-1361

Leitchfield Campus
101 East Carroll Gibson Boulevard
Leitchfield, KY 42754
(270) 259-1540

General Information
(270) 769-2371; (855)760-ECTC

Counseling, Advising & Transfer
(270) 706-8695
Disability Services
(270) 706-8455
Human Resources
(270) 706-8819
Library
(270) 706-8812
Public Relations
(270) 706-8530
Veterans Affairs
(270) 706-8815
Workforce Solutions
(270) 706-8700
Website
elizabethtown.kctcs.edu
Administration

President/CEO Dr. Thelma J. White
Provost/Chief Academic Officer Dr. Tiffany Evans
Chief Student Affairs Officer Dr. Dale Buckles
Chief Operations Officer Keith Johnson
Chief Business Affairs Officer John White
Dean of Instructional and Professional Development Sue French
Dean of Workforce Development and Continuing Education Dr. Tom Davenport
Campus Director Springfield Darrin Powell
Chief Institutional Advancement Officer Ron Harrell
Human Resources Director Kris Wood
Financial Aid Director Michael Barlow
Public Relations Director Mary Jo King
Cultural Diversity Director Felicia Tolver
Information Technology Director Chris Lee
Library Director Ann Thompson
Learning Lab Director Pam Harper
Institutional Effectiveness Coordinator Sarah Edwards
Distance Learning
Division of Occupational/Technical Programs Gwyn Sutherland
Division of Fine Arts & Humanities Michael Hazzard
Division of Biological & Health Sciences Jacqueline Hawkins
Division of Physical Sciences Tiffany McFalls-Smith
Division of Social & Behavioral Sciences Paul Sturgeon

Faculty

Barrow, Ramona, Associate Professor, MS, Strayer University, 2004
Beauchamp, Cherly, Assistant Professor, MBA, DeVry University, 2008
Biddle, Mary, Instructor, MSN, Walden University, 2012
Blanks, Rhonda, Associate Professor, MSN, University of Phoenix, 2010
Bow, Bobby K, Associate Professor, 21 years teaching experience, 22 years occupational experience
Bratcher, Tracy Renea, Professor, MA, Western Kentucky University, 1998
Brockman, Douglas W, Associate Professor, AAS/AAT, Elizabethtown Technical College, 2000
Brothers, Stephanie, Instructor, BS, University of Louisville, 2011
Brown, Charles J, Professor, MBA, University of Louisville, 1969
Brown, Margaret, Associate Professor, MA, Western Kentucky University, 2007
Brown, Shawn, Instructor, MS, Northern Kentucky University, 2014
Cameron, Sandra W, Professor, ME, University of Louisville, 2007
Cantrell, Douglas E, Professor, MA, University of Kentucky, 1985
Cantrell, Lisa A, Professor, MA, Morehead State University, 1986
Chandler-Cousins, Lois, Assistant Professor, MEd, University of North Carolina, 1997
Chism, John, Associate Professor, AAS, Elizabethtown Community & Technical College, 2002
Pate, Fredericka Susie, Professor, AS, Sullivan University, 1995
Clemmons, Jerry L, Professor, MS, Eastern Kentucky University, 2010
Cole, William, Associate Professor MS, Murray State University, 2001
Condill, Sara E, Associate Professor, MAE, Western Kentucky University, 2007
Cooper, Yavalleta K, Assistant Professor, MS, Delta State University, 2012
Cordova, Timothy M, Professor, MA, Midwestern State University, 2002
Coulston, Charles, Assistant Professor, MS, University of Kentucky, 2006
Coy, Julie S, Professor, MAE, Western Kentucky University, 1998
Coyle, Michael B, Professor, MAT, Vanderbuilt University, 1996
Csonka, Thomas Allen, Assistant Professor AAS, Elizabethtown Community and Technical College, 2013
Davis, John D, Associate Professor, PhD, University of Kentucky, 2003
Dile, Beverly, Professor, MA, West Virginia University, 1984
Dixon, Lucinda, Assistant Professor, DVM, Auburn University, 2010
Doty, Brent Morgan, Professor, MA, Western Kentucky University, 2003
Dryden, John, Assistant Professor, PhD, University of Louisville, 2013
Edwards, Sarah, Associate Professor, MS, Walden University, 2007
Eicher, Katrina M, Professor, MA, University of Nebraska, 1989
Emby, Robin D, Professor, MSN, University of Louisville, 1994
Erwin, Jill, Associate Professor, MA, University of Louisville, 2004
Faherty, Erin G, Instructor, MA, Northern Illinois University, 1992
Fox, Amy, Instructor, MFA, Spalding University, 2009
Gabehart, Stephen, Assistant Professor, AS, Western Kentucky University, 2008
Gabhart, Kimbra, Assistant Professor, MSN, McKendree University, 2008
Galloway, Joseph, Associate Professor, MS, Western Kentucky University, 2005
Glutting, Martha J, Professor, MSN, University of Louisville, 1989
Hamilton, Anna, Instructor, MA, St. Catharine College, 2014
Hankins, Tracy Kent, Instructor, MS, University of Maryland, 2013
Haque, Khondaker E, Professor, MA, University of Pittsburgh, 1981
Harper, Pamela, Professor, MA, SCT, Murray State University, 1980
Harris, Robert I, Professor, MA, Western Kentucky University, 1975
Haray, Judy A, Associate Professor, MEd, University of Louisville, 1991
Hawkins, Jacqueline, Associate Professor, MA, Florida State University, 2006
Hazzard, Michael W, Professor, BS, Western Kentucky University, 2007
Henderson, JoNell, Assistant Professor, MBA, Amberton University, 1989
Hendricks, Arthur A, Professor, AAS, Elizabethtown Technical College, 2001
Hicks, McLeah Dyer, Professor, MA, Western Kentucky University, 1994
Higdon, Rebecca, Associate Professor, MS, University of Louisville, 2011
Holman, Richard, Associate Professor, MBA, Georgia State University, 1976
Hornsby, Mary C, Professor, MA, Western Kentucky University, 1989
Howard, Linda G, Professor, MAE, Western Kentucky University, 1980
Johnson, Cyril, Associate Professor, BS, Western Kentucky University, 2006
Joyce, W D, Instructor, AAS, Elizabethtown Community and Technical College, 2006
Kelley, Lawrence, Associate Professor, MA, University of Memphis, 2006
Kelle, Shawn A, Professor, PhD, University of Louisville, 2005
Kennedy, Kevin, Professor, MA, Indiana University, 1996
Krell, Daniel, Associate Professor, AAS, Elizabethtown Community & Technical College, 2008
Lillgren, Deena, Associate Professor, MS, University of Louisville, 2009
Lloyd, Daniel Montgomery, Associate Professor, MS, Eastern Illinois University, 1998
Logsdon, Charles G, Professor, MA, University of Louisville, 1999
Lowe, Robert Alan, Professor, AAS, Elizabethtown Technical College, 2010
Mackellar, Laurie A, Associate Professor/Librarian II, MLS, University of Kentucky, 1992
Madras, Navin, Associate Professor, MS, Marquette University, 2001
Mayhew, Linda N, Professor, EdD, University of Kentucky, 1992
McFall-Smith, Tiffany, Associate Professor, MS, Southeastern Louisiana University, 2004
Meredith, Rosemary L, Associate Professor, BS, University of Louisville, 1995
Muetzer, Revel L, Professor, MA, Western Kentucky University, 1999
Meyer, Callista, Associate Professor/ Librarian II, MLS, University of Kentucky, 2007
Maraco, Michael, Instructor, MS, University of Maine, 2007
Moreno, Alberto Jose, Associate Professor, MA, University of Louisville, 2001
Mudd, Susan G, Professor, MSN, Spalding University, 1990
Murley, James I, Professor, PhD, University of Louisville, 2012
Nai, Joe J, Professor, BS, University of Louisville, 2000
Nason, Dean W, Associate Professor, MA, Western Kentucky University, 1979
Nemes, Janice E, Professor, MAT, University of Louisville, 1983
Nussbaumer, David D, Associate Professor, MA, Western Kentucky University, 1978
Ottman, Darla Kaye, Instructor, MS, Western Kentucky University, 1991
Owens, Johnny, Professor, MS, Western Kentucky University, 1986
Owens, Wanda D, Professor, PhD, University of Louisville, 2009
Page, Martha, Associate Professor, MS, Vanderbilt University, 1979
Parrett, Kevin, Assistant Professor, MS, Sullivan University, 2005
Pate, Lloyd, Assistant Professor, AAS, Elizabethtown Technical College, 2003
Potec, Wanda E, Professor, MA, Western Kentucky University, 1997
Potec, Gordon D, Associate Professor, BS, Western Kentucky University, 1997
Raizor, Glenn, Associate Professor, AAS, Elizabethtown Community & Technical College, 2005
Recel, Joseph, Instructor, AAS, Elizabethtown Community and Technical College, 2008
Richard, Amanda, Assistant Professor, MS, Texas & A M University, 2011
Rigney, Mary Alisa, Associate Professor, MA, Western Kentucky University, 2001
Rivera, Jeffrey, Associate Instructor, AAS, Elizabethtown Community & Technical College 2005
Roberts, Phillip, Assistant Professor, MBA, University of Phoenix, 2011
Schork, James E, Professor, EdD, Northern Illinois University, 1994
Shank, Kevin, Assistant Professor, MA, University of Louisville, 2008
Slone, Anthony, Associate Professor, MBA, Ashland University, 2001
Spalding, Jared C, Professor, BS, Western Kentucky University, 2002
Spratt, Sharon L, Professor, MA, Western Kentucky University, 1989
Sterns, Gary M, Professor, PhD, University of Kentucky, 1990
Sturgeon, Paul D, Professor, BS, University of Louisville, 1993
Sutherland, Marty L, Professor, BS, Southern Illinois University, 1996
Tabor, Sara, Instructor, AOS, Le Cordon Blue, 2007
Thomas, Dora Kay, Professor, MSN, Western Kentucky University, 2005
Thompson, Ann B, Professor/Librarian I, MLS, Indiana University, 1975
Towell, Elizabeth G, Professor, MA, University of Kentucky, 1995
Vail, James A, Professor, MS, University of Kentucky, 1978
Valora, Joseph Lee, Assistant Professor, AAS, Elizabethtown Community and Technical College, 2013
Waldron, John, Instructor, Ph.D, Texas A & M University, 2002
Walston, Patricia, Associate Professor, MA, University of Louisville, 2000
Wicks, Edward, Assistant Professor, MS, Syracuse University, 2001
Wiles, Matthew W, Assistant Professor, PhD, University of Louisville, 2014
Williams, Barry A, Instructor, MA, Austin Peay State University, 2010
Williams, Richard D, Associate Professor, MA, Western Kentucky University, 1978
Wolf, Joe, Associate Professor, PhD, University of Kentucky, 1992
Wolfe, Martha T, Professor, MS, University of Kentucky, 1978
Woodson, Robert, Associate Professor, AAS, Elizabethtown Community & Technical College, 2004
Wright, Miky, Instructor, MS, Western Kentucky University, 2015
Yates, Jennifer, Assistant Professor, MS, Western Kentucky University, 2012
Yates, Rita Jo, Professor, MSSW, University of Louisville, 1995
Young, Cody, Associate Professor, AAS, Bluegrass Community & Technical College, 2004
Zulevich, Louis, Associate Professor, MS, University of Louisville, 2002
Mission Statement/Status of Accreditation
Gateway Community and Technical College provides high quality, affordable, accessible, and inclusive postsecondary education and training resulting in a positive contribution to the economic vitality of the region and enhanced quality of life for all citizens.

Gateway Community and Technical College is a member of the Kentucky Community and Technical College Systems and is a public two-year degree granting institution serving the Northern Kentucky Region.

Gateway Community and Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Gateway Community and Technical College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula
Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

Advanced Manufacturing (C)
Air Conditioning Technology (C, D)
Apprenticeship Studies (A)
Auto Body/Collision Repair Technology (C, D)
Automotive Technology (C, D)
Business Foundations (C)
Business Studies:
  - Business Administration Systems (C, D, A)
  - Supply Chain Management (C, A)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D)
Cosmetology (C, D)
Criminal Justice (C, A)
Diesel Technology (C, D)
Education (A)
Emergency Medical Services – Paramedic (C, A)
Emergency Medical Technician (C)
Energy Technologies (C, A)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)

Health Information Technology (C, A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Kentucky Medication Aide (C)
Manufacturing Engineering Technology (C, A)
Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
Massage Technology (C, A)
Medicaid Nurse Aide (C)
Medical Assisting (C, A)
Nursing (A)
Plumbing Technology (C)
Practical Nursing (D)
Truck Driver Training (C)
Welding Technology (C, D)

Contact Information

Gateway Community and Technical College
Main numbers: (859) 441-4500
1-(855) 3GO-GCTC [1-(855) 346-4282]
gateway.kctcs.edu

Boone Campus
500 Technology Way
Florence, KY 41042

Edgewood Campus
790 Thomas More Parkway
Edgewood, KY 41017

Urban Metro Campus
525 Scott Boulevard
Covington, KY 41011

General Information
Admissions 1-855-3GO-GCTC (1-855-346-4282)
Adult Education (859) 442-1186
Advising Center (859) 442-1630
Assessment Center (859) 442-1159
Business Office 1-855-3GO-GCTC (1-855-346-4282)
Communications (859) 442-1172
Disability Services (859) 442-4120
Financial Aid 1-855-3GO-GCTC (1-855-346-4282)
Human Resources (859) 442-1150
Library and Information Services (859) 442-4162
Registrar (859) 442-4176
Safety and Security (859) 442-4129
Transfer (859) 815-7642
Urban Center (859) 442-1601
Veterans Affairs (859) 442-4114
Workforce Solutions (859) 442-1170
Website gateway.kctcs.edu
Facebook facebook.com/GatewayCTC
Administration

President
Director, Student Support Services
Colleen Kane
Executive Assistant to the President
Sharon Poore
Executive Vice President, Strategic Initiatives
Dr. Patricia Mahabir
Vice President, Administrative and Business Affairs
Jamie Younger
Vice President, Corporate College
Vice President, Development and Strategic Partnerships
Dean, Arts and Sciences
Dean, Business, Information Technology and Professional Studies
Dean, Enrollment Services
Dean, Health Professions
Dean, Manufacturing and Engineering
Dean, Transportation Technologies
Acting Registrar
Regional Director of Adult Education/COMPASS Coordinator
Director, Communications
Michelle Siggren
Director, Counseling Services
Tiffany Minard
Interim Director, Disability Services
Dana Franxsman
Director, Early College Initiatives
Shelby Krentz
Director, Financial Aid
Zana Smith
Director, Fiscal Services
Jennifer Noble
Director, Grants and Special Projects
Sandy Ortmann-Tolmin
Director, Human Resources
Phyllis Yeager
Director, Information Services
Melissa Sears
Director, Knowledge Management
Steve Popple
Director, Library and Information Services
Denise Fritsch
Director, Maintenance and Operations
George Hall
Director, North Central Area Health Education Center
Rose Mueller
Director, Nursing
Melani Stallkamp
Director, Retention Services
Ann Schultz
Director, Safety and Security
Tim Chesser
Director, Student Support Services
Colleen Kane
Director, Teaching and Learning
Dr. Kerri McKenna

Faculty

Albert, Stephanie Winter, Associate Professor, MEd, Northern Kentucky University, 1993
Bethel, Carol L., Professor, MBA, Xavier University, 1989
Bloomer, Dawn, Instructor, MPH, Walden University, 2009
Bloom, Antoinette, Assistant Professor, Diploma, Gateway Community and Technical College, 2015
Blum Pretty, Sherry, Assistant Professor, MA, Northern Kentucky University, 2010
Bowen, Richard, Professor, AAB, Cincinnati State Technical and Community College, 1976
Briery, Christina, Assistant Professor, MSN, Northern Kentucky University, 2016
Burch, Courtney, Associate Professor, MA, Northern Arizona University, 2009
Camm, Jana, Associate Professor, MEd, Northern Kentucky University, 1981
Carrino, Amy, Associate Professor, JD, Salmon P Chase College of Law, 1988
Carroll, John, Instructor, JD, Salmon P Chase College of Law, 2000
Carter, Amber, Associate Professor, BS, Eastern Kentucky University, 2009
Cathcart, John, Assistant Professor, MS, Texas A&M University, 2010
Chancy, Susan, Associate Professor, MEd, Northern Kentucky University, 1980
Chastain, Brendon, Assistant Professor, PhD, University of Arkansas, 2010
Collier, Samuel E, Associate Professor, BA, Northern Kentucky University, 2013
Collins, Thomas W, Professor, BS, University of Cincinnati, 1977
Crawford, Charles, Instructor, 2 years Teaching Experience, 11 Years Occupational Experience, ASE Master Certification
Czirr, Karen, Instructor, MS, St. Joseph University, 1993
Da Silva, Fares, Associate Professor, MA, Indiana State University, 2008
DeBerry, John, Associate Professor, MA, University of Wyoming, 2003
Decley Willute, Holly Michelle, Professor, PhD, University of Louisville, 2003
Donauday, William, Instructor, AAS, Bluegrass Community and Technical College, 2012
Donohoo, Kevin H, Associate Professor, AS, University of the State of New York, 1982
Down, Sharon, Assistant Professor, MA, University of Virginia, 1993
Ervin, Justin, Associate Professor, PhD, Northern Arizona University, 2011
Frazier, Paul, Assistant Professor, PhD, University at Albany SUNY, 2001
Fritsch, Denise, Instructor/Library, IV, MS, University of Kentucky, 2007
Fritz, Diane, Associate Professor, MS, Medical University of Ohio, 1997
Gallagher, Richard, Instructor, BA, Thomas More College, 2014
Gayle, Veronica, Instructor, BS, Eastern Kentucky University, 1971
Grooms, Chad M, Assistant Professor, MBA, Morehead State University, 1998
Harris, Vernon R, Associate Professor, BS, Northern Kentucky University, 2000
Haysbert, Ronald, Assistant Professor, BTM, DeVry University, 2009
Honu, Yohanes, Professor, PhD, Southern Illinois University, 2004
Jing, Weizhong, Associate Professor, MS, New Jersey Institute of Technology, 1998
Jones, Kenneth, Assistant Professor, 11 years Teaching Experience, 12 Years Occupational Experience, ASE Master Certification
Kane, Colleen N, Associate Professor, MEd, University of North Florida, 1980
Karlage, Martha, Instructor, BS, Eastern Kentucky University, 1986
Law, Chelsea, Instructor, MS, Clemson University, 2012
Laws, Sarah, Instructor, AAS, Gateway Community and Technical College, 2008
Lybrook, Adam C, Instructor, Diploma, Hibbing Community College, 2000
Mahan, Jerrell L, Assistant Professor, AAS, Northern Kentucky University, 1991
Mason, Meredith, Instructor, MSW, University of Michigan, 2011, MS, University of Cincinnati, 2015
Mathew, George, Professor, PhD, University of Kentucky, 1994
McKenna, Kerri, Associate Professor, EdD, Northern Kentucky University, 2011
Myka, Jennifer, Assistant Professor, PhD, University of Kentucky, 2003
Neeley, Ron, Assistant Professor, BS, Northern Kentucky University, 2010
Neely, Rocky, Associate Professor, MA, University of Cincinnati, 2008
Nelson, Lance, Associate Professor, BA, Marshall University, 1987
Ostendorf, Audrey, Instructor, MA, Northern Kentucky University, 2014
Owsley, Adarrel, Instructor, MEd, Indiana Wesleyan University, 2012
Phillips, Marcha, Assistant Professor, MSN, Indiana Wesleyan University, 2004
Poppel, Elisabeth, Assistant Professor, BA, College of Mount St. Joseph, 1993
Prairwater, Angela, Instructor, MBA, Xavier University, 2009
Ramanayake, Deepanishantha, Associate Professor, MS, Morehead State University, 2008
Reynolds, Jon, Instructor, BA, Centre College, 1995
Rice, Barbara, Assistant Professor, MBA, West Virginia University, 1997
Rickels, Christopher, Instructor, MA, The University of Toledo, 2013
Rickett, Patrick E., Associate Professor, MS, University of Wisconsin, 2000
Riley, Michael P, Instructor, MBA, Morehead State University, 2005
Riley, Michael K, Instructor, AAS, Morehead State University, 1983
Rosenberg, Lisa, Instructor, BA, York College of Pennsylvania, 1988
Ross, Deborah, Assistant Professor, MEd, Xavier University, 1987
Russell, Margaret, Instructor, MEd, Xavier University, 1990
Santos, Susan, Associate Professor, PhD, Walden University, 2004
Schaefer, David, Instructor, MA, Northern Kentucky University, 2013
Schilling, Judith C, Assistant Professor, MEd, Northern Kentucky University, 1987
Schultz, Kimberly, Instructor, Certificate, Gateway Community and Technical College, 2011
Selzer, Thomas J, Instructor, Diploma, Pinellas Vocational Technical Institute, 1986
Settlemair, Beth, Associate Professor, ME, University of Cincinnati, 2008
Siekmann-Hall, Stacey L., Assistant Professor, MS, University of Cincinnati, 2008
Smith, Jeffery, Instructor, Certificate, Sinclair Community College, 2003
Smith, Sarah, Instructor, MA, College of Mount St. Joseph, 2008
Stallkamp, Melani, Associate Professor, MSN, University of Cincinnati, 2009
Stewart, Gregory, Associate Professor, PhD, Ohio University, 1993
Stroud, Reva, Instructor, BS, Northern Kentucky University, 2010
Texter, Mary, Assistant Professor, MA, Northern Kentucky University, 2006
Vallette, Natasha, Assistant Professor, MA, Bowling Green State University, 2012
Walther, Eileen, Instructor, MA, University of Cincinnati, 1998
Warburton, Charles, Associate Professor, MA, University of Cincinnati, 2006
Wright, Dee, Associate Professor, 15 years Teaching Experience, 26 years Occupational Experience
Hazard Community and Technical College

Mission Statement/Status of Accreditation

Hazard Community and Technical College HCTC is a comprehensive, public community and technical college that empowers diverse learners, building self-confidence and leadership capacity for lifelong personal success and community enhancement.

A member of the Kentucky Community and Technical College System, HCTC primarily serves eastern Kentucky as a collaborative catalyst for blending Appalachian traditions with diverse global innovations.

Hazard Community and Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Hazard Community and Technical College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Transfer Curricula/Art Related
An Associate in Fine Arts (AFA) degree is designed to transfer into a Baccalaureate of Fine Arts (BFA) program at a four-year institution. Individual Associate in Fine Arts (A) degree curricula in each group is noted by an A in parenthesis.

Visual Art (A)

Occupational/Technical Curricula
Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

- Agricultural Technology (C)
- Air Conditioning Technology (C, D)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, D, A)
- Business Communications (C)
- Business Studies: Business Administration Systems (C, D, A), Medical Information Technology (C, D, A), Computer Aided Drafting and Design (C, D), Computer and Information Technologies (C, A), Construction Technology (C), Cosmetology (C, D), Criminal Justice (C, A), Diagnostic Medical Sonography (A), Diesel Technology (C, D), Emergency Medical Services – Paramedic (C, A), General Occupational/Technical Studies (A)

Health Information Technology (C, A)
Heavy Equipment Operation (C, D)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology: Electrical Technology (C, D)
Medicaid Nurse Aide (C)
Medical Laboratory Technology (C)
Nursing (A)
Physical Therapist Assistant (A)
Practical Nursing (D)
Professional Studio Artist (C, D, A)
Radiography (C, A)
Surgical Technology (A)
Surveying & Mapping Technology (C)
Visual Communication: Multimedia (C, A)
Welding Technology (C, D)

Contact Information

Hazard Community & Technical College
One Community College Drive
Hazard, KY 41701
(800) 246-7521
hazard.kctcs.edu

Hazard Campus
One Community College Dr.
Hazard, KY 41701
Technical Campus
101 Vo Tech Dr.
Hazard, KY 41701

Lees College Campus
601 Jefferson Ave.
Jackson, KY 41339

Knott County Branch
238 HWY 160 (Physical)
PO Box 1498 (Mailing)
Hindman, KY 41822

Leslie County Center
108 Maple Ave. (Physical)
PO Box 1870 (Mailing)
Hyden, KY 41749

General Information

Academics (606) 487-3502
Admissions (606) 487-3153
Business Office 1-855-6GO-HCTC (1-855-646-4282)
Disability Services (606) 487-3486
Financial Aid 1-855-6GO-HCTC (1-855-646-4282)
Human Resources (606) 487-3111
Library (606) 487-3304
Marketing/Public Relations (606) 487-3141
Records (606) 487-3311
Transfer Information (606) 487-3077
Veterans Affairs (606) 487-3059
Workforce Solutions (606) 487-3287
Website hazard.kctcs.edu
Faculty

Adams, Douglas D, Professor, AAS, Hazard Technical College, 2002
Adams, Mary D, Professor, AM, Morehead State University, 1979
Back, Renee Tabor, Professor, MS, University of Kentucky, 1993
Back, Tony, Professor, MS, Eastern Kentucky University, 2012
Barnes Jr, Donald R, Professor, MS, Oklahoma State University, 1992
Bates, Lauren Ann, Associate Professor, MSN, Eastern Kentucky University, 2009
Begley, Dan H, Professor, MBA, University of Kentucky, 1998
Boothe, Jenna L, Associate Professor, DNP, Western Kentucky University, 2015
Bowling, Randy L, Assistant Professor, 45 year Teaching Experience, 27 years Occupational Experience
Bowling, Tracy L, Professor, DPT, University of Kentucky, 2010
Branson, Cathy A, Librarian II, MSLS, University of Kentucky, 2006
Brunty, Helen F, Professor, MSW, University of Kentucky, 2000
Bryant, Jeremiah, Professor, MA, Morehead State University, 2000
Bryant, Randall K, Professor, MA, West Georgia College, 1988
Calwell, Venita Carol, Professor, MA, Union College, 1980
Campbell, Jesse A, Associate Professor, BS, Eastern Kentucky University, 1975
Caudill, Jimmy D, Professor, Diploma, Hazard Technical College, 1987
Clemons, Mavis, MS, Eastern Kentucky University, 2010
Collins, Gwendolyn, Professor, MSN, University of Kentucky, 1982
Combs, Donna R, Professor, MSN, University of Kentucky, 1986
Combs, Jerry M, Professor, MA, Morehead State University, 2011
Cornett, Willie, Assistant Professor, AAS, Hazard Community and Technical College, 2009
Couch, Melissa, BS, Morehead State University, 2012
Cravens, Thomas L, Assistant Professor, MS, University of Kentucky, 1989
Currie, Paul B, Associate Professor, DVM, University of Georgia, 2000
Davidson, Gwendolyn, Instructor, MS, Morehead State University, 2014
Davis, Tammy A, Instructor, AAS, Somerset Community College, 2013
Davison, Patrick S, Librarian II, MLS, University of Kentucky, 1990
Dixon, James M, Associate Professor, MA, Northern Arizona University, 1983
Dunn, Timothy J, Professor, MA, University of Kentucky, 1989
Flannery, Madeline K, Professor, MA, Columbia University, 1986
Flynn, Michael, , MFA, University of Montana, 2012
Francis, Sam W, Associate Professor, PhD, University of Kentucky, 1998
Frazier, David L, Professor, MBA, Morehead State University, 1996
Frazier, Misty, MSW, University of Kentucky, 2011
Gainer, Victor, Assistant Professor, 12 years Occupational Experience
Gibson, Diane A, Assistant Professor, MS, Louisiana Tech University, 2009
Globig, Sabine A, Professor, MS, Rutgers University, 1988
Gray, Michael, Instructor, MFA, Florida Atlantic University, 2012
Hagans-Shepherd, Ludrenia Sue, Professor, MSN, Eastern Kentucky University, 2000
Herald, Patricia Ann, Professor, DSN, University of Alabama, 1993
Holl, Richard E, Professor, PhD, University of Kentucky, 1996
Howard, Arzella W, Associate Professor, MSN, University of Phoenix, 2008
Howard, Cluster C, Professor, MA, Morehead State University, 1983
Ingram, Danny M, Professor, BS, Eastern Kentucky University, 2008
Jarvis, Shalena, Assistant Professor, AAS, Pitt Community College, 2006
Johnston, R Susan, Professor, BS, Eastern Kentucky University, 2007
Kidd Jr, Ralph E, Professor, MS, Eastern Kentucky University, 1991
Lewis, Everett C., Assistant Professor, 25 years Occupational Experience
Lindon, Jennifer A, Professor, PhD, Mississippi State University, 2010
Lucero, Scott C, Professor, MA, University of Kentucky, 1992
Lutes, Jennifer, Instructor, MA, Morehead State University, 2010
Madden, James Daniel, Assistant Professor, MA, University of the Cumberlands, 2010
Maggard, Wilma, Assistant Professor, Certificate, Hazard Community and Technical College, 2003
Malepeai, Alexis, Assistant Professor, BA, Brown University, 2003
Martin, Christina R, Associate Professor, MSN, Eastern Kentucky University, 2009
Martin, Joanna H, Associate Professor, Diploma, Cumberland Valley Technical College, 1999
Mathes II, John P, Associate Professor, MA, East Tennessee State University, 2006
May, Scott R, Professor, MS, Indiana State University, 1990
Medlin, Rex, Lecturer, MS, Arkansas State University, 2007
Mobelini, Deronda C, Professor, Ed. D., University of Kentucky, 2012
Moon, Randall B, Professor, PhD, University of California at Riverside, 2000
Mullins, Denessa, Instructor, BA, Ashford University, 2010
Napier, Anna S, Professor, MSW, University of Denver, 1991
Napier, Samuel Scott, Instructor, 18 years Teaching Experience, 18 years Occupational Experience
Neace, Thomas D, Professor, MA, Eastern Kentucky University, 1996
Osborne, Norman Dean, Instructor, 32 years Teaching Experience, 28 years Occupational Experience
Pennington, Beth Ann, Associate Professor, Ed. D., Morehead State University, 2013
Pergram, Nakisha, MA, Morehead State University, 2006
Petrey-Blandau, Sandra E, Professor, MA, Eastern Kentucky University, 1982
Phipps, Sandra K, Professor, MA, Morehead State University, 1988
Reed, Ronald S, Professor, MA, University of Dayton, 1985
Richie, Tammy Lene, Professor, MBA, Morehead State University, 1985
Rogers, Hannah, Librarian IV, MA, University of Kentucky, 2009
Sasser, Lynn D, Professor, MS, Eastern Kentucky University, 1972
Shaffer, Germaine B, Professor, JD, University of Louisville, 1990
Sixton, Rachel Juanita, Associate Professor, Diploma, East Kentucky Beauty College, 1998
Sipple, Savannah, Assistant Professor, MFA, Spalding University, 2008
Smith, Leila Sandlin, Professor, MBE, Morehead State University, 1987
Smith, Walter, I Assistant Professor, MS, University of Cincinnati, 2007
Spencer-Barnes, Amanda G, Associate Professor, MA, Morehead State University, 2007
Stamper, Vera Dawn, Associate Professor, DPT, University of Kentucky, 2011
Strickland, William M, Professor, MA, Morehead State University, 1981
Strong, Ella J, Professor, Ed. D., University of Kentucky, 2011
Swafford, Bryan, Assistant Professor, BA, Alice Lloyd College, 2000
Terry, Homer, Professor, MS, Eastern Kentucky University, 2004
Turner, Chestina, Assistant Professor, MA, Eastern Kentucky University, 2008
Vance, Delores S, Professor, MBE, Morehead State University, 1995
Vergne, Stephanie I., Professor, MA, Morehead State University, 2001
Watts, Natasha, Instructor, MS, Eastern Kentucky University, 2012
Wermette, Amy S, Professor, MS, University of Michigan, 1996
Whittaker, Timothy, Professor, BS, Midwestern State University, 2005
Williams, Jenny D, Professor, MA, University of Kentucky, 1992
Wood, Jeremy R, Professor, MS, University of Tennessee, 1993
The Mission of Henderson Community College: To enhance the quality of life and employability of the citizens of our community by serving as the primary provider of:

- College and Workforce Readiness
- Transfer Education
- Technical Education and Training
- Lifelong Learning and Cultural Enrichment

Henderson Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Henderson Community College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

- Agricultural Technology (C, D, A)
- Business Studies:
  - Business Administration Systems (C, D, A)
  - Business Management and Marketing (C)
  - Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C)
- Dental Assisting/Dental Hygiene (A)
- Emergency Medical Technician (C)
- Engineering and Electronics Technology (C)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C)
  - Industrial Maintenance Technology (C, A)
- Medical Assisting (C, D, A)
- Medical Laboratory Technology (C, A)
- Nursing (A)
- Practical Nursing (C)
- Welding Technology (C)

Contact Information

Henderson Community College
2660 South Green Street
Henderson KY 42420
(270) 827-1867
Toll free: 800-696-9958
Henderson.kctcs.edu

General Information

Welcome Center (270) 827-1867 or (800) 696-9958
Admissions 1-855-GO-HCC44 (855-464-2244)
Advising (270) 831-9610
Assessment Center (270) 827-9772
Business Office 1-855-GO-HCC44 (855-464-2244)
Continuing Education (270) 831-9658
Disability Services (270) 831-9783
Financial Aid 1-855-GO-HCC44 (855-464-2244)
Human Resources (270) 831-9617
Library (270) 827-9760
Orientation (270) 831-9607
Public Relations (270) 831-9805
Records 1-855-GO-HCC44 (855-464-2244)
Technology Solutions Help Desk (270) 831-9616
Transfer Information (270) 831-9828
Veterans Affairs (270) 831-9627
Workforce Solutions (270) 831-9658

Administration

President and CEO  Dr. Kris Williams
Interim Chief Academic Officer  Mr. Paul Kasenow
Chief Student Officer  Mr. Keith Sayles
Chief Business Officer  Mr. Jerry Gentry
Chief Advancement Officer  Ms. Jennifer Preston
Dean of Success Grants  Ms. Pam Wilson
Director of Cultural Diversity  Mr. William L. Dixon
Director of Institutional Effectiveness  Mr. Brian McMurtry
Director of Human Resources  Ms. Doris Lake
Chair, Allied Health Division  Dr. Carole Mattingly
Chair, Liberal Arts and Professional Studies Division  Ms. Sharon Burton
Chair, STEM Division  Mr. Eugene Patsalides
Director of Nursing  TBA
Assoc. Dean/Enrollment Management  Mr. Cary Conley
Assistant Dean for Library Services  Mr. Mike Knecht

Faculty

Becker, Kara, Associate Professor, ME, Western Kentucky University, 2003
Bennett, Brenda, Associate Professor, MS, Western Kentucky University, 1995
Blackburn, Catherine, Professor, MFA, East Carolina University, 1993
Buchanan, Marlena, Associate Professor, MSN, University of Southern Indiana, 2000
Bullock, Kimberly, Instructor, MSN, University of Southern Indiana, 2015
Burnett, Terri, Instructor, MSN, University of Southern Indiana, 2013
Burton, Sharon, Professor, MA, Ohio University, 1983
Chappell, Michelle, Assistant Professor, MS, Morehead State University, 2011
Crick, Sarah, Instructor, MNE, University of Southern Indiana, 2015
Dean, Kim, Professor, MS, Western Kentucky University, 1986
Fritts, David, Professor, PhD, Ohio University, 2012
Fuchs, Pennae, Professor, MS, University of Texas at Austin, 1974
Furbush, Frank, Associate Professor, MS, Southern Connecticut College, 1982
Gary, William, Professor, MA, Florida State University, 1991
Griffis, Katie, Associate Professor, MA, Eastern Illinois University, 2007
Hawa, Randa, Professor, MS, University of Evansville, 1991
Hunt, Cathy, Professor, MS, University of Kentucky, 1980
Jones, Mei, Assistant Professor, MS, University of Southern Indiana, 2006
Joy, Brian, Associate Professor, MBA, National University, 2000
Joy, Lila, Associate Professor, MA, Murray State University, 2003, MFA, Murray State University, 2015
Kasenow, Paul, Professor, MA, Kent State University, 1987
Kelley, Melissa, Instructor, MSN, University of Phoenix, 2015
Kipling, Sheri, Assistant Professor, MPH, Des Moines University, 2014
Knecht, Michael, Professor, MLS, Emporia State University, 1992, MBA, Western Kentucky University, 1999
Malby, Lorie, Professor, MA, Ohio University, 1983
Marquess, Alicia, Instructor, MSN, Kaplan University, 2014
Mattingly, Carole, Associate Professor, DNP, Western Kentucky University, 2015
McCarty, Steven, Professor, MA, Western Kentucky University, 1991
Mercer, Tony, Instructor, AAS, Hopkinsville Community College, 2007
Murray, Bridget, Professor, MSN, Indiana State University, 1998
Patsalides, Eugenios, Professor, MA, Western Kentucky University, 1997
Phelps, Barry, Assistant Professor, MA, Western Kentucky University, 2015
Reid, Kevin, Professor, MLS, University of Kentucky, 1993, MA, Purdue University, 1986
Amy Simpson, Instructor, MS, Black Hills State University, 2008
Strawn, Anthony, Professor, MA, University of Evansville, 1979
Taylor, Scott, Assistant Professor, MS, Murray State University, 2010
Threlkeld, Lori, Associate Professor, MS, Murray State University, 1992
Tutt, Larry, Associate Professor, MA, Murray State University, 1981
Wells, Rebecca, Professor, MS, Eastern Kentucky University, 1985
Winstead, Laura, Professor, MS, Murray State University, 1996
Mission Statement/Status of Accreditation
Hopkinsville Community College is an inclusive, student-centered educational institution that provides accessible, innovative, and comprehensive learning opportunities within a supportive community that encourages academic excellence. The college sustains strong educational, community, military, agricultural, and economic partnerships to improve the quality of life in the southern Pennyrile region and Fort Campbell.

Hopkinsville Community College promotes excellence in teaching and learning by offering:

- Degree, diploma, and certificate programs and courses that enable students to transfer to four-year institutions, and acquire the knowledge and skills for new or continued employment.
- Developmental, academic and support services that promote student success.
- Customized business and industry training.
- Continuing education and community outreach.
- Adult education.

Hopkinsville Community College is a member of the Kentucky Community and Technical College System and is a public two-year degree granting institution.

Hopkinsville Community College is a member of the Kentucky Community and Technical College System and is a public two-year degree granting institution. Hopkinsville Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Hopkinsville Community College.

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Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula
Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

Advanced Nursing Assistant (C)
Air Conditioning Technology (C)
Agricultural Studies (A)
Agricultural Technology (C, D, A)
Automotive Technology (C)
Business Studies:
  Administrative Office Technology (C, A)
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D, A)
  Computer Aided Drafting and Design (C, D)
  Computer and Information Technologies (C, A)

Contact Information

Hopkinsville Community College
720 North Drive, P.O. Box 2100
Hopkinsville, KY 42241-2100
(270) 707-3700 or toll free – (866) 534-2224
hopkinsville.kctcs.edu

Fort Campbell Campus
English Army Education Center
Room 135, 202 Bastogne Avenue
Fort Campbell, KY 42223
(270) 707-3950 or toll free – (866) 317-3950

Admissions
Larissa Horn
(270) 707-3813

General Information
(270) 707-3700

Larissa Horn
(270) 707-3813

- Adult Education
  Gary Dawson
  (270) 707-3926
  Deloria Scott
  (270) 707-3820
  Martha Metcalfe
  (270) 707-3826

- Testing Center
  Matthew Davenport
  (270) 707-3729
  Kanya Allen
  (270) 707-3827

- Workforce Solutions
  Carol Kirves
  (270) 707-3750
  Dr. Jason Warren
  (270) 707-3801

- Distance Learning Support
  Ryan Ray
  (270) 707-3903

- Financial Aid
  Janet Gunther
  (270) 707-3833

- Adult Education
  Gary Dawson
  (270) 707-3926

- Advising Center
  Deloria Scott
  (270) 707-3820

- Business Office
  Martha Metcalfe
  (270) 707-3826

- Career and Transfer Services
  Kanya Allen
  (270) 707-3827

- Disability Services
  Dr. Jason Warren
  (270) 707-3801

- Distance Learning Support
  Ryan Ray
  (270) 707-3903

- Financial Aid
  Janet Gunther
  (270) 707-3833

- Adult Education
  Gary Dawson
  (270) 707-3926

- Advising Center
  Deloria Scott
  (270) 707-3820

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  (270) 707-3826

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  Kanya Allen
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  Dr. Jason Warren
  (270) 707-3801

- Distance Learning Support
  Ryan Ray
  (270) 707-3903

- Financial Aid
  Janet Gunther
  (270) 707-3833

Admissions
Larissa Horn
(270) 707-3813
Human Resources
Yvonne Glasman
International Student Services
Dr. Jason Warren
Library
Ann Nichols
Public Relations and Marketing
Rena Young
Records/Registrar
Melissa Stevenson
Manager of External Education Programs-
Rotary Scholars/Dual Credit
Rachel Westernman
Transfer Information Liaison
Kunya Allen
Veterans Affairs
Wayne Rhoades
Information Technology
Tony Nelson
Diversity & Leadership-Office of Student Engagement
Tracey Stewart
Fort Campbell Campus
Alisha Lee

Administration

President/CEO
Dr. Jay S. Allen, Jr.
Chief Academic Affairs Officer
Dr. Alissa Young
Chief Student Affairs Officer
Dr. Jason Warren
Chief Business Affairs Officer
Mr. Jeff Horton
Chief of Community, Workforce and Economic Development
Mrs. Carol Kirves
Chief of Institutional Advancement
Mrs. Yvette Y. Eastham
Director of Institutional Effectiveness
Vacant
Information Technology Director
Mr. Tony Nelson
Division of Allied Health
Mrs. Peggy Bozarth
Division of Liberal Arts & Social Sciences
Dr. Ken Casey
Division of Mathematics and Sciences
Mr. Ted Wilson
Division of Professional and Technical Studies
Mr. Greg Bridgeman

Faculty

Akpong,Reginald C, Associate Professor, PhD, Southern Illinois University, 2013
Anderson,Danny L, Instructor, BSN, Austin Peay State University, 2013
Arnold,Jason E, Professor, MS, Murray State University, 2008, MS, Southern Illinois University at Carbondale, 1997
Bain,Scott Alexander, Associate Professor, MS, University of Illinois at Urbana-Champaign, 2004
Beverly,Elizabeth A, Associate Professor, MS, University of Louisville, 2009
Bozarth,Peggy Irene, Professor, MSN, Murray State University, 1997
Braxton-Brown,Justin Dale, Associate Professor, MA, Ohio University, 2002
Bridgeman,Gregory W, Professor, MA, Webster University, 1984
Broadbent,John S, Professor, MA, Austin Peay State University, 2002, MA, Trevecca Nazarene College, 1993
Burrell,Jahred Victor, Assistant Professor, PhD, Kansas State University, 2009
Carlisle II,Thomas T, Professor, MA, Murray State University, 1994
Casey,Kenneth Stewart, Professor, PhD, Vanderbilt University, 1991
Cawood,Marketa Liska, Professor, MA, State University of New Jersey Rutgers, 2007
Cummins,Christopher Mark, Instructor, MS, The University of Tennessee Knoxville, 2013
Darouka,Meha, Associate Professor, MA, Marshall University, 2005, MBA, Marshall University 2003
Davis,John P, Instructor, PhD., University of Kentucky, 2012
Dougherty,Karen, Associate Professor, M.D., University of Louisville School of Medicine, 1979
Evans,Audrey D, Professor, EDS, Austin Peay State University, 1998
Evans,Kimmel Kirk, Associate Professor, MAS, Embry-Riddle Aeronautical University, 1996, MA, Central Michigan University, 1980
Feltion,Kevin E, Professor, EdD, Tennessee State University, 1986
Gunn,Amanda Joy, Assistant Professor, MSN, Western Kentucky University, 2014
Higdon,Terri, Associate Professor, MSN, Murray State University, 2013
Holt,Stephanie, Associate Professor, MA, Eastern Kentucky University, 1994
Howard,Yvette, Instructor, Ed.D., The University of Georgia, 1993
Hunter,James T, Professor, MS, University of Kentucky, 1984
Jackman,Sarah F, Associate Professor, ME, University of Texas at El Paso, 1980, MET, University of Texas at El Paso, 1992
Laffoon-Jackson,Julia, Associate Professor, MA, Western Kentucky University, 1981
Lambruno,Jose, Associate Professor, MSN, Murray State University, 2010
Larkin,Vernell D, Professor, EdD, University of Kentucky, 2001
Lee,Jason, Instructor, MS, Murray State University, 2014
Lemons,Sherry L, Professor, MS, Austin Peay State University, 1994
Liggins,Nicole L, Instructor, MSN, Vanderbilt University, 2013
Lutz,Roger, Associate Professor, AAS, KCTCS - Hopkinsville Community College, 2004, Certification, CFPIHM and CFPIHT, 2001
McClure,Michael W, Professor, MS, Murray State University, 1981
McCormack,Sherry Lynn, Associate Professor, MS, Murray State University, 2009
Meador,Barbara W, Professor, MA, Austin Peay State University, 1978
Nichols,Linda A, Professor / Librarian, MA, University of Louisville, 2006, MLIS, University of Kentucky, 2000
Offutt,Chery Whitscott , Instructor, MSN, Chamberlain College of Nursing, 2013
Partney,Jeffrey A, Associate Professor, Certificate, National Occupational Competency Testing Institute, 1999
Pendleton,Arthur D, Professor, MBA, Western Kentucky University, 2003
Piper,Susan Evangline , Assistant Professor, MSN, Western Kentucky University, 2010
Pniewski,Tommi W, Professor, MSN, University of Evansville, 1977
Prudhomme,Bonny B, Professor, MS, Western Kentucky University, 1998, MA, Ball State University, 1976, MS, Loyola University, 2009
Ralph,Brett E, Professor, MFA, University of Massachusetts, 1993
Ray,Ryan A, Associate Professor, MFA, Murray State University, 1996
Riley,Patrick J, Professor, MA, University of Missouri, 1997
Sandifer,Dana R, Professor, MSN, Murray State University, 1996
Saurermann,Amanda C, Professor, MA, Gannon University, 1993
Sauler,Bernd Eberhard, Professor, PhD, University of Lexington, 1986
Schultz,Arthur Ray, Associate Professor, MS, Tennessee State University, 2009
Scott,Deborah A, Professor / CC Counselor, MS, Murray State University, 1996
Sims,Debreck, Associate Professor, MFA , Murray State University, 2011, MS, Southern Illinois University, 2007
Smith,Robert William, Associate Professor, MAE, Marian University, 2009
Stahl,Anne L, Associate Professor, MA, Austin Peay State University, 1983
Stewart,Sharon K, Assistant Professor, MSN, Walden University, 2008
Stone,Ashby L, BS, Indiana Wesleyan University, 2013
Wilkinson,Daniel M, Professor, MM, Western Kentucky University, 1984
Wilson,Ted H, Professor, MA, Baylor University, 1983
Windsor,Dale L, Associate Professor, MA, Murray State University, 1971
Young,Alisha L, Professor, EdD, University of Kentucky, 2013, MS, Murray State University, 1993
Ziemer,Stuart David, Assistant Professor, AAS, KCTCS – Hopkinsville Community College, 2006
Mission Statement/Status of Accreditation

We open the door to quality education that promotes the economic and cultural vitality of our community, encourages all to discover and achieve their potential, and provides opportunities to turn dreams into realities.

Mission Goals

Jefferson Community and Technical College fulfills its Mission by promoting excellence in programs and services in support of educational opportunity, lifelong learning, and student achievement as expressed in the following goals:

• Support the attainment of regional and statewide educational goals through data informed and inquiry driven strategies to increase retention rates and completion of credentials (Associate Degrees, Diplomas, and Certificates).
• Maximize student achievement through an institutional commitment to effective teaching and support services.
• Enhance workforce readiness and economic development of the community by providing seamless educational opportunities through agreements with adult education, secondary school systems, post-secondary institutions, community groups, and business and industry partners.
• Provide an inclusive, accessible, and safe learning and working environment.
• Exercise responsible stewardship of the College’s human, fiscal, and physical resources.

Jefferson Community and Technical College is a member of the Kentucky Community and Technical College System offering career/technical, transfer, and transitional educational opportunities with campuses and locations in Jefferson, Shelby, Carroll, Bullitt, Gallatin, Henry, Oldham, Owen, Spencer, and Trimble Counties.

Jefferson Community and Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Jefferson Community and Technical College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

African American Studies (C)
Air Conditioning Technology (C, D)
Applied Process Technologies (C, D, A)
Apprenticeship Studies (A)
Auto Body/Collision Repair Technician (C, D)
Automotive Technology (C, D, A)
Aviation Maintenance Technology (C, D, A)
Business Studies:
  Administrative Office Technology (C, D, A)
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D)
  Computer Aided Design and Drafting (C, D)
  Computer and Information Technologies (C, A)
  Computerized Manufacturing and Machining (C, D)
  Construction Technology (C, D)
  Cosmetology (C, D)
  Criminal Justice (A)
  Culinary Arts (C, A)
  Digital Game and Simulation Design (C)
  Education (A)
  Emergency Medical Services – Paramedic (C, A)
  Emergency Medical Technician (C)
  Engineering and Electronics Technology (C, D, A)
  Fire/Rescue Science Technology (C, D, A)
  General Occupational/Technical Studies (A)
  Global Studies (C, A)
  Health Information Technology (C, A)
  Health Science Technology (A)
  Historic Preservation Technology (C)
  Homeland Security/Emergency Management (C)
  Human Services (C, A)
  Industrial Chemical Technology (A)
  Insurance and Risk Management (C)
  Interdisciplinary Early Childhood Education (C, A)
  Invasive Cardiology (C)
  Manufacturing Industrial Technology:
    Electrical Technology (C)
    Industrial Maintenance Technology (C, D, A)
  Mechatronics (C)
  Medical Administrative Services (C)
  Medical Assisting (C, D, A)
  Medical Laboratory Technology (C, A)
  Multi-skilled Systems Technician (C)
  Nursing (A)
  Occupational Therapy Assistant (A)
  Pharmacy Technology (C, D)
  Physical Therapist Assistant (A)
  Plumbing Technology (C, D)
  Practical Nursing (C, D)
  Radiography (A)
  Respiratory Care (C, A)
  Surgical Technology (D, A)
  Truck Driver Training (C)
  Visual Communication:
    Communication Arts Technology (C, A)
    Multimedia (C)
    Printing (C, D)
    Visual Arts (C)
  Volumetric Medical Imaging (C)
  Welding Technology (C, D, A)
Contact Information

Jefferson Community & Technical College
109 E. Broadway
Louisville, KY 40202
(502) 213-5333
jefferson.kctcs.edu

Downtown Campus
109 East Broadway
Louisville, KY 40202
(502) 213-5333

Southwest Campus
1000 Community College Drive
Louisville, KY 40272
(502) 213-5333

Carrollton Campus
324 Main Street
Carrollton, KY 41008
(502) 732-4846 or (800) 853-3887

Jefferson Technical Campus
727 W. Chestnut Street
Louisville, KY 40203
(502) 213-5333

Shelby County Campus
1361 Frankfort Road
Shelbyville, KY 40065
(502) 633-5524

Bullitt County Campus
505 Buffalo Run Road
Shepherdsville, KY 40165
(866) 634-7418
(502) 213-5333

Library – Bullitt County
Library – Downtown
Library – Jefferson Technical
Library – Southwest
Library – Carrollton
Library – Shelby County
Marketing and Communications
Records
Transfer Information Liaison
Veterans Affairs

Admissions
Bursar’s Office
1-855-2GO-JCTC (1-855-246-5282)
Business Office
Center for Community Workforce
and Economic Development
Disability Services
Diversity
Financial Aid
Human Resources

Administration

President
Dr. Ty Handy

Vice President for Academic
and Student Affairs
Dr. Diane Calhoun-French

Dean of Academic Affairs – Downtown Campus
Dr. Randall Davis

Dean of Academic Affairs and Extended Campuses/
Academic Initiatives- Southwest Campus
Donna Miller

Dean of Academic Affairs -
Jefferson Technical Campus
Dr. Telly Sellers

Dean of Student Affairs and Enrollment
Management
Dr. Laura Smith

Dean of System Initiatives
Vincent DiNoto Jr.

Director of Carrollton Campus
Susan Carlisle

Director of Shelby County/Bullitt County Campuses
Dr. Denise Gray

Director of Human Resources
Toni E. Whalen

Dean of Workforce Solutions
Mary Ann Hyland-Murr

Director of Institutional Effectiveness
Dr. Jo Zausch

Division of Arts and Humanities
Marlisa Austin

Division of Business and Advanced Technology
Dr. Bruce Jost

Division of Social and Behavioral Sciences –
Charles McCombs

Division of Allied Health
Kara Schotter

Division of Nursing
Sonia Rudolph

Division of Mathematics
Drew Wilkerson

Division of Natural Science
Kaya Muller

Division Trade and Industry
Grant Gamble

Director of Library Services
Sherice Williams

Faculty

Ackerman, Jennifer, Associate Professor, MA, University of Louisville, 1993
Adams, Constance, Assistant Professor, MSN, McKendree University, 2007
Adams, James, Associate Professor, MHA, University of Phoenix, 2007
Adams, Jill, Associate Professor, MA, East Carolina University, 1998
Arterburn, Kay PointeX, Professor, MAT, University of Louisville, 1987
Asamoah, Samuel R., Associate Professor, MBA, Pittsburg State University, 1989
Ashley, Barbara R., Professor, PhD, University of Pittsburgh, 1981
Attarzadeh, Hamid, Associate Professor, MS, University of Louisville, 1991
Austin, Marlisa R, Professor, MA, Union College, 1999
Bartley, Brandon, Professor, MS, Virginia Tech, 2003
Bebee, Patricia, Professor, MA, University of Kentucky, 1976
Betts, Autumn, Associate Professor, MSW, Southern Baptist Theological Semi-

nary, 1996
Bloyd, Deborah, Associate Professor, MSN, University of Louisville, 1984
Boswell, Melanie A, Professor, MS, Florida State University, 2000
Boyd, Lisbeth, Assistant Professor, MS, Murray State University, 2008
Buckler, Michael, Associate Professor, MA, University of Louisville, 1996
Burks, Isom, Assistant Professor, MA, City University of New York, 1979
Butler, Casandra M., Instructor, AAS, Jefferson Community and Technical Col-
lege, 2013
Calhoun-French, Diane, Professor, PhD, University of Louisville, 1982
Cartwright, Andrea, Assistant Professor, MA, University of Louisville, 2006
Changaris, Link T., Associate Professor, MS, Western Kentucky University, 2004
Charaska, Margie W, Professor, EdD, Spalding University, 1998
Cheatham, Cathy A, Instructor, MED, Western Kentucky University, 1979
Chelf, Eva, Instructor, MAT, University of Louisville, 2008
Cooper, David L., Professor, MA, Atlanta University, 1975
Couch, Krist, Instructor, BS, Indiana University, 2000
Crawford, Candice C, Professor, PhD, Rutgers University, 1997

25
Fowler, Lori, Instructor, BA, Eastern Kentucky University, 1994
Phillips, Stephen, Associate Professor, MS, Murray State University, 2003
Renn, Robert D, Instructor, MS, University of Kentucky, 1986

LaGrange (KSR)*
Bledsoe, Marsha C, Professor, MAT, University of Louisville, 1997

Luther Luckett*
Lawrey, Charles D, Associate Professor, AS, Jefferson Community and Technical College, 2006

Pewee Valley (KCIW)*

West Kentucky*

Herring, Steven M, Associate Professor, MS, Murray State University, 1999
Kinnis, Jared, Instructor, BS, Western Kentucky University, 2005
Walker, Margaret, Assistant Professor, BA, Murray State University, 1992

*Note: HB 164 passed during the 2010 Kentucky General Assembly transferred management oversight and responsibility for Corrections Education programs to the Department of Corrections, effective July 1, 2010. Some faculty listed could have elected to transfer to the Department of Corrections.

Correctional Sites

Green River*

Edelen, Cathy L, Associate Professor, MA, Murray State University, 1983
Lovell, Karen, Instructor, BS, University of Kentucky, 1973
Piper, Sherry A, Professor, MA, Western Kentucky University, 1998

Eddyville (KSP)*
Belt, Danny, Instructor, Master Electrician License

White, Deborah C, Professor, MSN, University of Kentucky, 1982
Wilburn, Mark S, Professor, PhD, Ohio University, 1987
Wiles, Thomas S, Professor, MS, University of Louisville, 1990
Wilkerson, Andrew, Assistant Professor, MS, University of Nebraska, 2010
Williams, Sheree Huber, Professor, MLS, University of Kentucky, 1981
Wright, Catherine, Professor, MA, Marshall University, 1988
Wright, Mark, Professor, MEng, University of Louisville, 1992
Yocum, Heather L, Assistant Professor, MA, Northern Kentucky University, 2010
Zausch, Jo Fouts, Professor, EdD, Spalding University, 1996

Luther Luckett* was an Associate Professor at Jefferson Community and Technical College, 2006.
Mission Statement/Status of Accreditation

To advance an enduring and enthusiastic commitment to student-centered learning and achievement.

In support of our mission and as a public comprehensive community college and member of the Kentucky Community College and Technical College System, Madisonville Community College will:

- offer two-year associate degree curricula transferable to all colleges and universities in Kentucky;
- offer two-year associate of applied science, career-oriented technical degree curricula for immediate employment;
- offer diploma and certificate level programs, not intended for transfer, but designed to meet the changing needs of business and industry;
- provide flexible customized training opportunities for area employers;
- provide adult literacy services;
- provide non-credit personal enrichment programming; and
- provide arts appreciation and arts education opportunities.

The mission statement derives from an institution-wide commitment to these values:

- Shared responsibility for learning between student and teacher.
- Mutual respect and open communication.
- Open inquiry and data-based decision making.
- Effective collaboration and teamwork.
- Flexibility, adaptability and availability.
- Professional behavior and personal effectiveness.
- Community service and responsiveness.
- Continuous improvement.
- Diversity in all its dimensions.
- Sustainability.
- Life-long learning.

Madisonville Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Madisonville Community College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution's significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

- Advanced Integrated Technology (C, A)
- Business Studies:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
- Computer and Information Technologies (C, A)
- Criminal Justice (C, A)
- Emergency Medical Services – Paramedic (C, A)
- Emergency Medical Technician (C)
- Energy Management (C, D, A)
- Engineering Related – Project Lead the Way (PLTW) (C)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Healthcare Technology Management (C, A)
- Health Science Technology (A)
- Human Services (C, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Medical Laboratory Technology (C, D, A)
- Mining Technology (C, A)
- Nursing (A)
- Occupational Therapy Assistant (A)
- Paralegal Technology (C, A)
- Physical Therapist Assistant (A)
- Practical Nursing (C, D)
- Radiography (A)
- Respiratory Care (A)
- Surgical First Assisting (C, A)
- Surgical Technology (C, D, A)
- Welding Technology (C, D)

Contact Information

Madisonville Community College
2000 College Drive
Madisonville, KY 42431
(270)821-2250 Fax (270)824-1866
madisonville.kctcs.edu

Health Sciences Campus
750 N Laffoon Street
Madisonville, KY 42431
(270)824-1751

ACE2 and Assessment Center
130 School Avenue
Madisonville, KY 42431
ACE2 (270) 824-1821
Assessment Center (270) 824-1702

Muhlenberg Campus
406 W Everly Brothers Boulevard
Central City, KY 42330
(270)757-9881

Glema Mahr Center for the Arts
2000 College Drive
Madisonville, KY 42431
(270) 821-ARTS

General Information
(270) 821-2250

Admissions (270) 824-8643
Business Office 1-855-55GO-MCC (1-855-554-6622)
Workforce Solutions (270) 824-8659
Continuing Education (270) 824-8660
Disability Services (270) 824-1708
Financial Aid 1-855-55GO-MCC (1-855-544-6622)
Human Resources (270) 824-8649
Library (270) 824-1722
Public Relations (270) 824-8581
Records and Registrar (270) 824-8575
Veterans Affairs (270) 824-8578
Website madisonville.kctcs.edu

Administration

President Dr. Cynthia S. Kelley
Chief Academic Affairs Officer Dr. Deborah M. Cox
Chief Student Affairs Officer Dr. Jonathan V. Parrent
Chief Business Affairs Officer E. Ray Gillaspie
Workforce Solutions Michael A. Davenport
Grants, Planning, and Effectiveness David A. Schuermer
Institutional Advancement J. Christopher Woodall
Public Relations Coordinator B. Joyce Riggs
Division of Applied Technologies Matthew S. Luckett
Division of Arts & Humanities Dr. Mary Bl Werner
Division of Allied Health Stephanie A. Taylor
Division of Nursing E. Shannon Allen
Division of Mathematics and Sciences Dr. John Lowbridge
Division of Social and Behavioral Sciences Natalie F. Cooper

Faculty

Adams, Sara Lyn Baldwin, Professor, Ph.D., Florida State University, 2008
Adkins, Christy S, Professor, MS, Washington University, 2011
Allen, Barton E, Assistant Professor, BS, Western Kentucky University, 2002
Allen, Clarissa E, Associate Professor, MA, East Tennessee State University, 2007
Allen, E Shannon, Professor, MSN, University of Kentucky, 2001
Archila, Amberly Brooke, Assistant Professor, MA, Murray State University, 2009
Bac Com, Paula J, Sinopoli, Lecturer, MS, University of Southern Missippi, 1996
Batts, Kevin C, Instructor, MBA, Murray State University, 2011
Bennett, Tate R, Professor, MS, West Virginia University, 1989
Berges, Cherry L, Professor/Librarian I, MLS, Clarion University, 1992
Bidwell, Jeffrey L, Professor, MA, Murray State University, 1999
Blue, Brandy M, Instructor, BSN, Murray State University, 2015
Burton, Misty V, Assistant Professor, BS, Eastern Kentucky University, 1995
Clayton, Wendy Dail, Professor, MS, Western Kentucky University, 2008
Conrad, Karol A, Professor, MS, Murray State University, 1995
Cook, Ava M, Associate Professor, BSN, University of Louisville, 2000
Cooper, Natalie F, Professor, MS, Murray State University, 1998
Cunningham, Chester M, Professor, MBA, Murray State University, 1998
Davis, Reid A, Associate Professor, BS, Western Kentucky University, 1999
Davis, Sharon D, Associate Professor, MA, University of Kentucky, 1993
Davis, Timothy F, Associate Professor, MS, Murray State University, 2013
Deal, Andrea L, Professor, MA, Murray State University, 2005
Deal, Robert Michael, Associate Professor, BS, Mid-Continent University, 2010
Edens, Kellie Brooke, Associate Professor, MSN, Northern Kentucky University, 2014
Elder, Loretta J, Associate Professor, DNP, Eastern Kentucky University, 2016
Florea, Jeffrey M, Professor, MS, Murray State University, 2000
Florea, Katrina M, Assistant Professor, MS, Murray State University, 1999
Fouse, Patricia T, Instructor, MA, Murray State University, 2007
Fugate, Sharon J, Professor, MS, Morehead State University, 1990
Gallegos, Darlena, Associate Professor, BS, Kaplan University, 2008
Garrity, Savanna C, Professor, MPA, Murray State University, 2008
Gibson, Tonia R, Professor, MS, Murray State University, 2008
Gooch, Joe T, Professor, MA, University of Indiana, 1966
Grace, April M, Professor, MA, Western Kentucky University, 2005
Hagan, Gregory D, Professor, MFA, Murray State University, 2007
Hawkins, Judith G, Professor, MS, University of Kentucky, 1985
Hayes, Kelly A, Associate Professor, MS, Murray State University, 2014
Hernandez-Stevenson, Brittnay, Instructor, MS, Murray State University, 2013
Hewell, Sherry D, Professor, MEd, University of Louisville, 1993
Hill, Clarissa Rana, Professor, MS, Murray State University, 2007
Jansen, Mary E, Professor, PhD, Indiana University, 1995
Johnson, Bartley J, Instructor, MS, Southern Illinois University, 2015
Johnson, Felecia K, Professor, MA, Murray State University, 1987
Jones, Joey R, Professor, MS, Murray State University, 2012
Jones, Sara Jane, Associate Professor, DNP, Eastern Kentucky University, 2016
Lange, Paula Louise, Associate Professor, MS, Indiana University, 1996
Latham, Dawn L, Assistant Professor, MSN, Western Kentucky University, 2015
Lear, Alyssa Gayle, Professor, MS, Western Kentucky University, 2001
Lear, Tracie D, Associate Professor, BSN, University of Louisville, 2001
Lee, Lisa E, Professor, MAE, Western Kentucky University, 1998
Lewis, Harry R, Associate Professor, MS, University of Evansville, 1986
Littlehale, Tracy, Associate Professor, MS, Northeastern University, 1999
Lowbridge, John, Associate Professor, PhD, South Bank University, 1971
Luckett, Matthew S, Associate Professor, BS, Western Kentucky University, 2014
Lutz, Rebecca Faith, Associate Professor, MS, Indiana Wesleyan University, 2012
Markwell, Greshin M, Assistant Professor, MSN, Western Governors University, 2014
Martin, Timothy S, Assistant Professor, MA, Liberty University, 2011
McClearn, Nancy J, Associate Professor, MA, Murray State University, 1997
Melton, Chandy D, Assistant Professor, MA, Murray State University, 2000
Mitchell, Judith A., Assistant Professor, MSN, Western Kentucky University, 2015
Moore, Lizabeth A, Professor, MS, Murray State University, 1989
Oglesby, Sarah A, Professor, SCT, Murray State University, 1978
Peyton, Sarah R, Associate Professor, MSN, Murray State University, 2011
Poole, Mary J, Associate Professor, MAEd, Western Kentucky University, 1984
Pullin, Sheri D, Instructor, BSN, University of Southern Indiana, 2015
Qualls, Mary Kim, Associate Professor, MS, Belmont University, 2004
Richmond, Camille E, Associate Professor/Librarian II, MLIS, Louisiana State University, 1991
Roy Jr, Lawrence, Professor, MFA, George Mason University, 1989
Schnapf, Barbara A, Instructor, MS, University of Evansville, 1997
Shuffett, George M, Professor, PhD, University of Virginia, 1989
Shockley, Sonya M, Associate Professor, MAT, Webster University, 2005
Sidton, Tina M, Professor, MS, Murray State University, 2014
Simons, Kimberly Lee, Professor, MA, Murray State University, 2001
Skeen, Amanda F, Assistant Professor, MPT, University of Evansville, 2003
Talukdar, Aseem, Associate Professor, PhD, University of Cincinnati, 2008
Taylor, Stephanie A, Associate Professor, MAE, Western Kentucky University, 2013
Tillen, Monica D, Professor, MS, Western Kentucky University, 1992
Vander Ploeg, Scott D, Professor, PhD, University of Kentucky, 1994
Welch, Jennifer R, Assistant Professor, MA, Western Kentucky University, 2009
Werner, Mary B, Professor, PhD, Northern Illinois University, 1996
West, Marlena K, Professor, MAC, Western Kentucky University, 1976
West, Robin R, Assistant Professor, PhD, Indiana State University, 2008
Woodall, Kimberly D, Instructor, AAS, Madisonville Community College, 2007
Woodall, Marsha Dianne, Professor, DNP, Eastern Kentucky University, 2016
Wright, Debbie L, Professor, MA, Southern Illinois University, 1988
Young, Patricia A, Professor, MPA, Murray State University, 1999
Mission Statement/Status of Accreditation

Maysville Community and Technical College (MCTC) challenges learners to accomplish their educational, career, and personal development goals.

Goals of the College:

• Provide arts and science courses and associate degrees for transfer to baccalaureate institutions.
• Offer technical degrees, diplomas, certificates, and courses for employment and career advancement.
• Provide transitional and adult education offerings.
  Deliver workforce training and services to support individual, community, and economic development.
• Provide academic and student support to enhance student learning.

Maysville Community and Technical College, a member of the Kentucky Community and Technical College System, is a public two-year degree granting institution responding to and serving the needs of communities in the northeastern Kentucky region.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution's significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

Advanced Nursing Assistant (C)
Air Conditioning Technology (C, D)
Applied Process Technologies (C)
Auto Body/Collision Repair Technology (C, D)
Automotive Technology (C, D)
Broadcast Television Technologies (C)
Business Studies:
  Administrative Office Technology (C, D, A)
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D, A)
Computer Aided Drafting and Design (C, D)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D)
Cosmetology (C)
Criminal Justice (C, A)
Culinary Arts (C, A)
Diesel Technology (C, D)
Digital Game & Simulation Design (C)
Emergency Medical Services – Paramedic (C)
Emergency Medical Technician (C)
Energy Systems (C, A)
Equine Studies (C)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Horticulture (C, D)
Interdisciplinary Early Childhood Education (C, D, A)
Logistics and Operations Management (C)
Manufacturing Industrial Technology:
  Electrical Technology (C, D)
  Industrial Maintenance Technology (C, D, A)
Medical Assisting (C, D)
Medical Laboratory Technology (C, A)
Nursing (A)
Plastics Processing (C)
Plumbing Technology (C, D)
Practical Nursing (C, D)
Real Estate (C)
Respiratory Care (A)
Truck Driver Training (C)
Welding Technology (C, D)
Workplace Safety Specialist (C)

Contact Information

Maysville Campus
1755 US Hwy 68
Maysville, KY 41056
(606)759-7141
maysville.kctcs.edu

Rowan Campus
609 Viking Drive
Morehead, KY 40351
(606)783-1538
maysville.kctcs.edu

Licking Valley Campus
319 Webster Avenue
Cynthiana, KY 41031
(859)234-8626
maysville.kctcs.edu

Montgomery Campus
201 Calk Avenue
Mt. Sterling, KY 40353
(859)499-6282
maysville.kctcs.edu

Additional Sites

Rowan Campus Downtown Extension
229 Flemingsburg Road
Morehead, KY 40351
(606)780-0628
(606)780-0629
maysville.kctcs.edu
Maysville Campus

General Information (606) 759-7141
Admissions Ext. 66185
Business Office 1-855-GO-9MCTC (1-855-469-6282)
Workforce Solutions Ext. 66120
Continuing Education Ext. 66120
Disability Services Ext. 66209
Financial Aid 1-855-GO-9MCTC (1-855-469-6282)
Human Resources Ext. 66119
Library Ext. 66206
Public Relations Ext. 66247
Records Ext. 66184
Veterans Affairs Ext. 66148
Website maysville.kctcs.edu

Rowan Campus

General Information (606) 783-1538
Admissions Ext. 66362
Business Office 1-855-GO-9MCTC (1-855-469-6282)
Financial Aid 1-855-GO-9MCTC (1-855-469-6282)
Human Resources Ext. 66310
Library Ext. 66366
Records Ext. 66314
Workforce Solutions 606-780-0069
Website maysville.kctcs.edu

Licking Valley Campus

General Information (859) 234-8626
Admissions Ext. 66436
Business Office 1-855-GO-9MCTC (1-855-469-6282)
Financial Aid 1-855-GO-9MCTC (1-855-469-6282)
Library Ext. 66417
Records Ext. 66405
Workforce Solutions Ext. 66418
Website maysville.kctcs.edu

Administration

President/CEO Stephen M. Vacik, Ed.D.
Rowan Campus Branch Campus Director Russ Ward
Rowan Campus Academic Coordinator Vacant
Provost Juston Pate, Ph.D.
Chief Business Officer George Jones
Chief Officer, Workforce Solutions Vacant
Licking Valley Campus Branch Campus Director Barbara Campbell
Licking Valley Campus Academic Coordinator David Lawler
Montgomery Campus Education Center Director Rebecca Morton
Resource Development Cara Clarke
Public Relations Jessica Kern
Division of Industrial Technologies Kathleen Mellenkamp
Division of Liberal Arts and Education Angela Fultz, Ph.D.
Division of Math, Natural Science and Agriculture Debbie Nolder
Division of Health Science Technologies Darla Hunt
Division of Business and Computing Technologies Vacant
Dean of Student Development George Jones
Chief Finance and Facilities Officer

Associate Dean of Finance Vacant
Coordinator of Distance Learning Kimberly Sparks
Associate Dean of Institutional Planning, Research, and Effectiveness Pam Stafford
Associate Dean of Academic Support Services; Director, Adult Education/College Preparation Dana Calland, Ed.D.
Director of Human Affairs Vacant
Director of Grant Development Sherry Stacy
Director of Financial Aid Millicent Harding
Director of External Education Programs Billie Barbour
Director of General Education Vacant
Director of Information Technology Sandy Power
Director of Library Services Sandi Estill

Faculty

Adler, Jennifer, Instructor, MS, Eastern Kentucky University, 2010
Alburg, Tammy, Instructor, MA, Morehead State University, 1994
Barnett, Kenneth, Associate Professor, BS, Morehead State University, 2004
Bone, Martha D, Professor, DA, Middle Tennessee State University, 1985
Boone, Debora A, Associate Professor, BSN, University of Phoenix, 2009
Boyd, Tony, Associate Professor, MA, Morehead State University, 1989
Burns, Tammy B, Assistant Professor, AAS, Maysville Community College, 1988
Butler, Deanna J, Associate Professor, AAS, Morehead State University, 1981
Calland, Dana J Taylor, Professor, EdD, Grambling State University, 2007
Callihan, Jeffrey C, Associate Professor, BS, Morehead State University, 2002
Carrol, Melissa L, Professor, MA, Morehead State University, 1998
Clarke, Ginger, Assistant Professor, BSN, Auburn University, 1990
Curtis, Tina, Assistant Professor, MA, Northern Kentucky University, 2009
Dickison, Jeannette C, Professor, MFA, Ohio University, 1985
Druen, Joshua W, Associate Professor, MA, Morehead State University, 2006
Eads, Sonja R, Professor/Library, MLS, University of Kentucky, 1985
Flora, Charlene, Assistant Professor, BA, University of Tennessee, 2010
Frode, Shannon C, Associate Professor, MSN, Northern Kentucky University, 2007
Fultz, Angela, Associate Professor, PhD, University of Kentucky, 1996
Garrison, Janet I, Professor, MBA, University of Kentucky, 1992
Goedpaster, Sagan, Assistant Professor, MS, Eastern Kentucky University, 2013
Graves, Robert L, Professor, MS, Morehead State University, 1992
Hamm, Robert G, Professor, BS, Morehead State University, 1985
Hauke, Barbara, Assistant Professor, MS, University of Cincinnati, 1989
Haley-Rosser, Vicky, Assistant Professor, BSN, University of Kentucky, 1984
Hawkins, Adam, Assistant Professor, BS, Morehead State University, 2010
Hawkins, Jack, Assistant Professor, AAS, Maysville Community and Technical College, 2010
Hendricks, Alison, Assistant Professor, MSN, Indiana Wesleyan University, 2014
Howard, Barry D, Associate Professor, AA, Morehead State University, 2007
Hunter, Nancy D, Professor, EdS, University of Kentucky, 1999
Hyreza, Alexander L, Professor, MA, Western Kentucky University, 1990
Jones, Gordon, Instructor, AAS, Maysville Community and Technical College, 1989
King, John E, Professor, AA, Morehead State University, 2007
Klee, John R, Professor, MHE, Morehead State University, 1977
Lawler, David J, Professor, MS, University of Kentucky, 1990
Lightner, Rebecca S, Professor, MS, University of Kentucky, 1995
Lowery, Bethany A, Associate Professor, MSN, Morehead State University, 2002
Maddox, Natasha, Assistant Professor, MBA, Morehead State University, 2013
May, Jenna, Assistant Professor, MA, Novaohirsk State University, 1990
McDavid, Sheila, Instructor, BSN, University of Kentucky, 2010
McElhaney, Wesley, Associate Professor, MSN, Northern Kentucky University, 2003
McKinney, Dallas, Instructor, BA, Morehead State University, 2010
Mellenkamp, Kathleen M, Professor, MA, Morehead State University, 1977
Miller, John S, Assistant Professor, MS, University of Kentucky, 1988
Moore, Brenda, Instructor, MA, State University of New York at Binghamton, 1988
Morris, Debra R, Professor, BBA, Morehead State University, 1988
Morris, Melanie J, Professor, BS, University of Kentucky, 1991
Muenks, Martha J, Professor, MA, University of Kentucky, 1993
Napier, Jerry, Assistant Professor, PhD, University of Kentucky, 1997
Noble, Wendy, Associate Professor, MA, Morehead State University, 2009
Correctional Campuses

Eastern Kentucky Branch Campus*

Cantrell, Roger Allen, Assistant Professor, Diploma, Rowan Technical College, 1990
Cloud, Chalmer L, Professor, MS, Morehead State University, 1993
Cole, Carla A, Professor, MA, Morehead State University, 1996
Litteral, Holli H, Professor, MA, Morehead State University, 1999

*Note: HB 164 passed during the 2010 Kentucky General Assembly transferred management oversight and responsibility for Corrections Education programs to the Department of Corrections, effective July 1, 2010. Some faculty listed could have elected to transfer to the Department of Corrections.
Mission Statement/Status of Accreditation
To cultivate lifelong learning opportunities through career degree programs, workforce and community development, and transfer-to-baccalaureate degree programs.

Owensboro Community and Technical College, a member of the Kentucky Community and Technical College System, is a public two-year degree granting institution serving the Daviess and surrounding counties of Kentucky.

Owensboro Community and Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Owensboro Community and Technical College.

Note: The Commission to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs
Transfer Curricula
  Associate in Arts
  Associate in Science

Transfer Curricula/Art Related
An Associate in Fine Arts (AFA) degree is designed to transfer into a Baccalaureate of Fine Arts (BFA) program at a four-year institution. Individual Associate in Fine Arts (A) degree curricula in each group is noted by an A in parenthesis.
  Theatre (A)
  Visual Art (A)

Occupational/Technical Curricula
Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.
  Advanced Nursing Assistant (C)
  Agricultural Studies (D, A)
  Air Conditioning Technology (C, D)
  Automotive Technology (C, D, A)
  Business Communication (C)
  Business Studies:
    Administrative Office Technology (C, A)
    Business Administration Systems (C, D, A)
    Medical Information Technology (C, A)
  Computer and Information Technologies (C, A)
  Computerized Manufacturing and Machining (C, D, A)
  Criminal Justice (C, A)
  Diesel Technology (C, D, A)
  Emergency Medical Services – Paramedic (C, A)
  Emergency Medical Technician (C)
  Engineering and Electronics Technology (C, D, A)
  Engineering Related: Project Lead the Way (C)
  Financial and Customer Service (C)
  Fire/Rescue Science Technology (C, D, A)
  General Occupational/Technical Studies (A)
  Healthcare Facilities Leadership (A)
  Human Services (C, A)
  Interdisciplinary Early Childhood Education (C, D, A)
  Manufacturing Industrial Technology:
    Electrical Technology (C, D, A)
  Industrial Maintenance Technology (C, D, A)
  Medicaid Nurse Aide (C)
  Nursing (A)
  Pharmacy Technology (C)
  Radiography (C, A)
  Surgical Technology (C, A)
  Technical Theatre (C)
  Veterinary Technology (A)
  Welding Technology (C, D, A)

Contact Information
Owensboro Community & Technical College
4800 New Hartford Road
Owensboro, KY 42303
(270) 686-4400
Toll Free 1 (866) 755-OCTC
owensboro.kctcs.edu

OCTC Downtown Campus
1501 Frederica Street
Owensboro, KY 42301
(270) 686-4444

OCTC Southeastern Campus
1901 Southeastern Parkway
Owensboro, KY 42303
(270) 686-4488

General Information
Admissions (270) 686-4527
Business Office 1-855-5GO-OCTC (1-855-546-6282)
Workforce Solutions (270) 686-4444
Continuing Education (270) 686-4449
Disability Services (270) 686-4528
Financial Aid 1-855-5GO-OCTC (1-855-546-6282)
Human Resources (270) 686-4442
Library (270) 686-4590
Marketing and Communications (270) 686-4506
Records (270) 686-4539
Transfer Center Liaison (270) 686-4529
Veterans Affairs (270) 686-4631
Website (270) 686-4570
Administration

President
Interim Vice President of Academic Affairs
Vice President of Business Affairs
Vice President of Information Technology
Vice President of Student Affairs
Vice President of Workforce Solutions
Associate Dean of Academic Affairs
Associate Dean of Business Affairs
Associate Dean of Nursing
Associate Dean of Advanced Manufacturing Technologies
Associate Dean of Humanities and Fine Arts
Associate Dean of Social Sciences, Business and Public Service
Associate Dean of Personal Services and Skill Trades
Associate Dean of Mathematics, Science, and Allied Health
Associate Dean of Student Affairs, Registrar
Associate Dean of Student Affairs, Cultural Diversity
Director of Marketing & Communications
Director of Public Safety
Director of Southeastern Campus

Faculty

Abell, Donna, Associate Professor, MS, Florida State University, 2004
Aeschbach, Matthew, Assistant Professor, MA, San Diego State University, 2008
Arnold, Julia, Instructor, MS, University of Evansville, 1997
Ash, Angela, Assistant Professor, MA, University of Louisville, 2005
Bailes, Steven R, Professor, BS, Eastern Kentucky University, 1977
Basham-Edge, Zara, Associate Professor, AAS, Owensboro Community and Technical College, 2013
Boarman, Keith, Associate Professor, Murray State University, 1999
Booker, Connie, Assistant Professor, MA, Western Kentucky University, 1997
Bowlds, Barry K, Associate Professor, AAS, Western Kentucky University, 2003
Boyd, Michael, Professor, MBA, Southwest Missouri State University, 1987
Boyd, Vicki H, Professor, MA, Murray State University, 1981
Branham, Matthew, Professor, MA, Morehead State University, 2000
Brown, Kathryn, Associate Professor, MA, Western Kentucky University, 1994
Canales, Michael, Instructor, BS, DeVry University, 1987
Caplan, Geralyn M, Professor, MS, University of Illinois, 1984
Collins, Shannon Quinette, Professor, MA, Morehead State University, 2000
Crowe, Randy Keith, Professor, BS, Western Kentucky University, 1999
Curtis-Abuonk, Vickie L, Associate Professor, MS, Western Kentucky University, 1984
DePasquale, Donna, Assistant Professor, MS, Western Kentucky University, 2013
Dick, Timothy T, Professor, PhD, University of Kentucky, 2002
Donahoo, Lori, Assistant Professor, MSN, Western Kentucky University, 2013
Ebelhar, Bethany, Associate Professor, BSN, Murray State University, 2000
Edwards, Lois M, Associate Professor, MAE, Western Kentucky University, 2002
Ford, Constance R, Professor, DME, Indiana University, 1983
Gesser, Chad, Associate Professor, MAE, Western Kentucky University, 1997
Gibson, Molly, Assistant Professor, MPA, Western Kentucky University, 2008
Gish, Misty, Associate Professor, MS, Murray State University, 2001
Glenn III, Robert J, Professor, MA, University of Nevada Las Vegas, 1985
Glenn, James H, Professor, EdD, University of Kentucky, 2001
Gore, Michael G, Professor, BS, Western Kentucky University, 2009
Hall, Teresa, Assistant Professor, BSN, Western Kentucky University, 1997
Hamilton, Cassandra, Associate Professor, MA, Western Kentucky University, 2003
Hammonds, Gary S, Associate Professor, AAT, Institute of Electronic Technology, 1986
Head Jr, Gerald M, Assistant Professor, MS, Western Kentucky University, 1995
Helm, Monty J, Assistant Professor, MFA, Southern Illinois University - Carbondale, 1988
Higdon, Frances, Assistant Professor, AAS, Owensboro Community and Technical College, 2011
Hildenbrandt, Daniel R, Associate Professor, MA, Southern Illinois University - Carbondale, 1982
Hoffman, Kathy, Assistant Professor, MS, Catholic University of America, 1986
Hollman, Stephen F, Professor, BS, Murray State University, 1999
Howard, Jacqueline, Assistant Professor, BS, Murray State University, 2009
James, Walter, Assistant Professor, Nashville Auto-Diesel College, 1993
Johnson, Connie F, Associate Professor, MBA, Morehead State University, 2006
Johnson, James L, Professor, MA, Western Kentucky University, 1987, M.A.
University of Kentucky, 1998
Kobela, Peter, Associate Professor, MA, Matej Bel University, 1998
Layman, Janet S, Assistant Professor, AAS, Madisonville Community College, 1993
Leach, Eddie, Instructor, DVM, Auburn University, 1984
Lewis, Courtland, Assistant Professor, PhD, University of Tennessee, 2012
Lutzel, John, Associate Professor/ Librarian IV, MLS, University of Southern Mississippi, 2004
Martin, David C, Professor, MS, Western Kentucky University, 2007
McCrae, Lauren, Instructor, MPA, Western Kentucky University, 2012
McDonough, Greta J, Professor, MSSW, Western Kentucky University, 1978
McGee, Jennifer S, Associate Professor, BSN, Western Kentucky University, 1996
Mens, Nadine Joyce, Associate Professor, EdD, Western Kentucky University, 2015
Miller, Clyde A, Instructor, 20 years teaching experience, 13 years occupational experience
Monsour, Matthew, Instructor, MA, Saint Meinrad School of Theology, 2010
Morris, Edward J, Professor, PhD, Southern Illinois University, 1989
Morris, Kelly, Associate Professor, PhD, University of Kentucky, 2009
Moseley, Daniel Joe, Professor, BS, Western Kentucky University, 2008
Mowers, Kathleen A, Professor, MAT, Indiana University, 1975
Mundell, Donald W, Associate Professor, MS, Eastern Illinois University, 1976
Nall, Keith Lewis, Assistant Professor, AS, Nashville Automotive Diesel College, 1986
Northenor, Tonya, Associate Professor, MFA, University of Memphis, 1999
Obiade, Anthony, Associate Professor, PhD, Southern Illinois University, 2001
Payne, Justin, Associate Professor, AAS, Owensboro Community and Technical College, 2005
Payne, Shawn, Associate Professor AAS, Owensboro Community and Technical College, 2007
Perkins, Micah W, Associate Professor, MS, University of Nebraska, 2001
Purdy, Cheryl A, Associate Professor BS, Kentucky Wesleyan College, 1976
Purdy, Robert, Associate Professor, MPS, Western Kentucky University, 1983
Revlett, Kimberly, Instructor, ADN, Kentucky Wesleyan College, 2000
Rice, Tammy M, Associate Professor, MA, Western Kentucky University, 1984
Runyon, Carl R, Associate Professor, MA, University of Evansville, 1973
Ruth, Deborah L, Associate Professor, MA, Western Kentucky University, 1993
Schmitt, Theresa M, Professor, MBA, University of Akron, 1992
Skaggs, Meredith, Associate Professor, PhD, EdD, Western Kentucky University, 2015
Stone, Larry G, Instructor, Diploma, Owensboro Community and Technical College, 2005
Swanson, Susan, Associate Professor MA, Western Kentucky University, 2007
Taylor, Eunice K, Associate Professor, PhD, Southern Illinois University, 1997
Tudor, Michelle G, Associate Professor, AAS, Owensboro Community College, 2000
Wallace, Albert F, Professor, MBA, Xavier University, 1978
Ward, Lorene J, Associate Professor, MS, Western Kentucky University, 1972
Wetzel, William F, Professor, PhD, Southern Illinois University - Carbondale, 1987
Williams, Chelsea, Assistant Professor, MS, Western Kentucky University, 2011
Wilson, Pamela S, Associate Professor, MA, Southern Illinois University - Edwardsville, 1995
Wood-Graesla, Vickie A, Associate Professor, AAS, Owensboro Community and Technical College, 2003
Yazvac, Joseph, Professor, EdD, Auburn University, 2002
Mission Statement/Status of Accreditation
The mission of Somerset Community College is to improve the employability and quality of life of area citizens as the primary provider of:

- College and Workforce Readiness
- Transfer Education
- Workforce Education and Training
- Associated Student Support Services

Somerset Community College, a member of the Kentucky Community and Technical College System, is a public associate degree granting institution serving the south central region of Kentucky.

Somerset Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Somerset Community College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula
Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.
- Air Conditioning Technology (C, D)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, D)
- Aviation Maintenance Technology (C, D, A)
- Business Studies:
  - Business Administration Systems
  - Medical Information Technology (C, D, A)
- Certified Medical Technician (C)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D)
- Construction Technology (C, D)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Culinary Arts (C, D, A)
- Diesel Technology (C, D)
- Digital Printing Technology (C)
- Emergency Medical Services– Paramedic (C, A)
- Emergency Medical Technician (C)
- Engineering and Electronics Technology (C, A)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D, A)
  - Masonry (C)
  - Medical Assisting (C, D)
  - Medical Laboratory Technology (C, A)
  - Multi-skilled Systems Technician (C)
  - Natural Gas Technology (C)
  - Nursing (A)
  - Pharmacy Technology (C, D)
  - Physical Therapist Assistant (A)
  - Practical Nursing (C, D)
  - Radiography (C, A)
  - Respiratory Care (A)
  - Surgical Technology (C, A)
  - Truck Driving Training (C)
  - Visual Communication:
    - Design & Technology (C)
    - Multimedia (C, D, A)
    - Printing (C, D)
    - Welding Technology (C, D)

Contact Information

Somerset Community College
Somerset Campus
808 Monticello St.
Somerset, KY 42501
Toll Free (877) 629-9722 or (606) 679-8501
somerset.kctcs.edu

SCC Laurel Campus
100 University Dr.
London, KY 40741

SCC McCreary Center
250 College St.
Whitley City, KY 42653

SCC Russell Center
848 Steve Wariner Dr.
Russell Springs, KY 42642

SCC Clinton Center
1273 KY Highway 90 W.
Albany, KY 42602

SCC Casey Center
3609 North US 127
Liberty, KY 42539

General Information
- General Information (877) 629-9722
- Admissions/Records (606) 451-6630
- Business Office 1-855-66GO-SCC (1-855-664-6722)
- Community Workforce and Economic Development (606) 451-6690
- Disability Services (606) 451-6706
- Financial Aid 1-855-66GO-SCC (1-855-664-6722)
- Human Resources (606) 451-6620
- Library/Learning Commons (606) 451-6710
- Public Relations (606) 451-6618
- Transfer Center (606) 451-6650
- Veterans Affairs (606) 451-6640
- Website somerset.kctcs.edu
Administration

President/CEO
Jo Marshall, PhD

Provost
Tony Honeycutt, EdD

Dean of Applied Technology
Roger Angeline

Dean of Student Affairs
Tracy Casada

Dean of Learning Support
Bruce Gover

Dean of Health Sciences
Nancy Powell

Associate Dean of Distance Learning/Learning Support
Linda Bourne

Associate Dean of Humanities, Fine Arts & Social Sciences
Jon Burlew

Associate Dean of Career & Technical
Dan Burnett

Associate Dean of Transitional Education
Kim Cleberg

Associate Dean of Mathematics & Natural Sciences
Clint Hayes, EdD

Associate Dean of Business & Professional Services
Lois McWhorter

Interim Associate Dean of Workforce Solutions
Alesa Johnson

Chief Operations Officer
Larry Abbott

Interim Business Affairs Officer
Jill Meece

Director of Institutional Advancement
Cindy Clouse

Faculty

Abner, Jeffrey, Instructor, BS, Eastern Kentucky University, 2015
Allen, Melinda J. Associate Professor, MA, Eastern Kentucky University, 1993
Angevine, Roger L, Professor, MS, University of Illinois, 1969
Armstrong, Anthony L, Professor, MS, University of Texas at Arlington, 1984
Asher, Jason, Associate Professor, MA, Lindsey Wilson College, 2010
Atkinson-Bigelow, Johnna, Professor, MA, University of Kentucky, 1991
Ballard, Linda K, Professor, EdD, Eastern Kentucky University, 2016
Barbalace, Roberta, Assistant Professor, MS, Colorado State University, 1976
Barnes, Kelly J, Associate Professor, MS, Eastern Kentucky University, 2006
Beatty, Frances M, Associate Professor, AS, Eastern Kentucky University, 1986
Behrman, David M, Professor, MS, University of North Carolina-Chapel Hill, 1996
Bentley, Sheila, Instructor, MS, Eastern Kentucky University, 2009
Blevins, JoY, Professor, DNP, University of Kentucky, 2010
Bloomingham, Michael S, Assistant Professor, MA, Eastern Kentucky University, 2005
Bradford, Kevin L, Professor, MBA Weyland Baptist University, 2000
Bradley, Daniel A, Associate Professor, MA, Morehead State University, 2007
Bridgman, Pamela S, Professor, MS, Capital College, 1999
Brock, Brandy, Associate Professor, BS, Eastern Kentucky University, 2013
Brown, Eddie, Associate Professor, AAS, Somerset Community College, 2003
Broyles, Angela W, Associate Professor, MS, Eastern Kentucky University, 1999
Burlew, Jonathan W, Professor, MS, Fort Hays State University, 1993
Burnett, Daniel C, Professor, MA, Union College, 2007
Burnett, Kippe Brown, Professor, MSN, Eastern Kentucky University, 2000
Burton, Cindy, Associate Professor, BFA, American Intercontinental University, 2009
Byrd, Cynthia G, Instructor, MA, Eastern Kentucky University, 1986
Calcotera, Carol L, Assistant Professor, MBA, Eastern Kentucky University, 1999
Calder, Michael V, Associate Professor, AAS, Somerset Community College, 2000
Carothers, Franklin T, Professor, MBA, Murray State University, 1992
Cash, Curtis F, Professor, MA, Union College, 2007
Catron, Shanda L, Associate Professor, BS, University of Louisville, 2007
Chadwell, Clevern, Associate Professor, AAS, Somerset Community College, 2007
Childress, Margaret L, Associate Professor, MBA, Morehead State University, 2008
Cleberg, Kimberlie S, Associate Professor, MA, Eastern Kentucky University, 2001
Cleberg, Steven F, Professor, MFA, University of Portland, 1982
Colley, David A, Assistant Professor, BS, Eastern Kentucky University, 2012
Conaway, Vicki L, Professor, MSN, University of Kentucky, 1982
Copenhaver, Brandi Wilson, Professor, MS, Eastern Kentucky University, 2001
Cunningham, Gary, Associate Professor, EdD, Texas A&M University, 2006
Deaton, Eric D, Assistant Professor, MS, Eastern Kentucky University, 1997
DeBord, Lenora Frances, Professor, MSN, Eastern Kentucky University, 2002
Decker, Doyle, Assistant Professor, MA, California State University, 2010
Dobbins, Billy W, Associate Professor, MS, Eastern University, 1994
Duvall, Billie, Associate Professor, MSN, Eastern Kentucky University, 2012
Eastham, Donna S, Professor, M.A. Ed, Western Kentucky University, 1994
Elam, Debra L, Associate Professor, AAS, Somerset Community College, 2005
Farnsworth, Adam, Instructor, BS, Berea College, 2004

Feldman, Samantha, Instructor, BS, Eastern Kentucky University, 2004
Flaney, Randall, Professor, BS, Eastern Kentucky University, 2011
Franklin, Tracey, Instructor, BA, Midway College, 2014
Fries, Dennis, Assistant Professor, MS, Eastern Kentucky University, 2003
Fries, Wanda F, Professor, MFA, Bennington College, 1986
Gadd, Belinda P, Associate Professor, MA, Eastern Kentucky University, 2002
Gadd, Susan G, Professor, MS, University of Kentucky, 1989
Gammage, Simeon D, Associate Professor, AAS, Somerset Community College, 2010
Gaskin, Tom P, Associate Professor, MS, Eastern Kentucky University, 2007
Goleman, Michael J, Assistant Professor, PhD, Mississippi State University, 2010
Gover, Glen B, Professor, MS, Eastern Kentucky University, 2001
Graham, Gerald M, Associate Professor, AAS, Somerset Technical College, 2000
Grover, Alyce A, Professor, MA, Southwest Missouri State University, 1989
Hammons, John S, Professor, DPT, Shenandoah University, 2006
Harris, James Ricky, Assistant Professor, AAS, Somerset Community College, 2007
Harris, Jeffrey D, Professor, MA, Eastern Kentucky University, 1998
Hayes, Clinton R, Instructor, EdD, University of the Cumberlands, 2011
Hewitt, John, Assistant Professor, BSN, Bellarmine University, 1996
Hickman, Shannon M, Associate Professor, BA, Lincoln Memorial University, 2008
Hoskins, Jess, Associate Professor, BA, Eastern Kentucky University, 1975
Houze, Debra J, Professor, MS, University of Kentucky, 1994
Howe, Julie M, Assistant Professor, MLS, University of Kentucky, 2010
Huflaker, Lorna S, Professor, MSN, Eastern Kentucky University, 2003
Huntsman, Mary Taylor, Professor / Librarian, MA / MLS, University of Kentucky, 1994
Islam, Mark, Associate Professor, MS, Eastern Kentucky University, 1992
Jacques, Kenneth R, Professor, MBA, Ball State University, 1987
Johnson, Kelly, Assistant Professor, MA, Eastern Kentucky University, 2003
Jones, Rebecca, Instructor, AAS, Somerset Community College, 2011
Karim, Md Jahurul, Associate Professor, DVM, Bangladesh Agricultural University, 1977
Kilgore, April L, Professor, PhD, University of Kentucky, 1994
Kohrmann, Elaine E, Associate Professor, MS, University of Cincinnati, 1990
Krause, Richard, Professor, MA, University of Kansas, 1969
Land, Kimberly, Instructor, AAS, Temple College, 1999
Larson, Irene J, Associate Professor, MA, National University, 2010
Lester, Danny L, Associate Professor, AAS, Somerset Technical College, 2002
Lewis, Kathy S, Professor, MS, Eastern Kentucky University, 1994
Logan, Donna L, Professor, MA, Eastern Kentucky University, 1997
Mace, Ronald W, Assistant Professor, MA, Morehead State University, 1984
Martin, Ruth S, Professor, MSN, Eastern Kentucky University, 1999
Martinez, George M, Associate Professor, MS, Murray State University, 1991
Matika, Richard S, Associate Professor, EdD, University of Kentucky, 2012
McClendon, Steven S, Assistant Professor Instructor, EdD, University of the Cumberlands, 2012
McFetters, James L, Associate Professor, MS, Louisiana State University, 1991
McQueen, Travis, Professor, MS, Eastern Kentucky University, 2001
McWhorter, Lois A, Professor, MBA, Eastern Kentucky University, 1988
Meade, Ronald L, Professor, DPT, Shenandoah University, 2006
Metcalfe, Virginia E, Associate Professor, MS, Eastern Kentucky University, 2002
Mills, Angela N, Assistant Professor, BS, Northern Kentucky University, 2012
Mills, Craylon T, Associate Professor, PhD, Capella University, 2015
Moran, Phillip D, Assistant Professor, AAT, Somerset Technical College, 2002
Morris, Amanda K, Associate Professor, MA, University of Kentucky, 2009
Muse, Dana, Professor, MS, University of Kentucky, 1998
Nazario, Eduardo, Assistant Professor, AS, Sullivan University, 2005
Null, George Curtis, Assistant Professor, AA, Trinity Valley Community College, 1967
Oakes, Chelsea, Instructor, MSN, Eastern Kentucky University, 2014
Osborne, Roger, Associate Professor, MA, University of Louisville, 2002
Owens, Jennifer, Associate Professor, AAS, Somerset Community College, 2008
Perkins, Jeffrey H, Professor, MA, Eastern Kentucky University, 1993
Peterson, Betty W, Professor, MA, University of Kentucky, 1986
Phelps, David A, Associate Professor, AAS, Somerset Technical College, 2000
Phelps, Devin, Assistant Professor, MSLS, University of Kentucky, 2011
Phillips, Christopher M, Professor, EdD, University of Kentucky, 2011
Pierce, Christopher A, Associate Professor, BS, University of Kentucky, 2003
Polly, Nancy L, Professor, M.A.Ed., Eastern Kentucky University, 1987
Price, Carol A, Associate Professor, BSN, Eastern Kentucky University, 1995
Ramilo, Cecilia A, Associate Professor, PhD, Washington State University, 1996
Randall, Marc S, Associate Professor, MS, Eastern Kentucky University, 2011
Mission Statement/Status of Accreditation

The mission of Southcentral Kentucky Community and Technical College is to improve the employability and quality of life of south central Kentucky citizens as the primary provider of:

- Certificate, diploma, associate degree, and collegiate transfer programs.
- College and workforce readiness.
- Workforce education and training.
- Adult education and family literacy.

Southcentral Kentucky Community and Technical College, a member of the Kentucky Community and Technical College System, is a public two-year degree granting institution serving the south central region of Kentucky.

Southcentral Kentucky Community and Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Southcentral Kentucky Community and Technical College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

- Air Conditioning Technology (C, D, A)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, D, A)
- Business Studies:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
  - Computer and Information Technologies (C, A)
  - Computerized Manufacturing and Machining (C, D, A)
  - Culinary Arts (C, D, A)
  - Diagnostic Medical Sonography (C, A)
  - Emergency Medical Technician (C)
  - Engineering and Electronics Technology (C, D, A)
  - Fire/Rescue Science Technology (C, D, A)
  - General Occupational/Technical Studies (A)
  - Manufacturing Industrial Technology:
    - Electrical Technology (C, D, A)
    - Industrial Maintenance Technology (C, D, A)
  - Medical Administrative Services (C)
  - Nursing (A)
  - Practical Nursing (C, D)
- Paramedic Technology (C)
- Radiography (A)
- Respiratory Care (A)
- Surgical Technology (A)
- Welding Technology (C, D, A)

Contact Information

Southcentral Kentucky Community and Technical College
1845 Loop Drive
Bowling Green, KY 42101
Main Campus (270) 901-1000
southcentral.kctcs.edu

Off Site Locations

Glasgow Campus
129 State Avenue
Glasgow, KY 42141
(270) 901-1200 & (270) 651-5673

Glasgow Technology Campus
500 Hilltopper Way
Glasgow, KY 42141
(270) 659-6900

Kentucky Advanced Technology Institute
1127 Morgantown Road
Bowling Green, KY 42101
(270) 901-1150

Transpark Center
221 Commonwealth Blvd
Bowling Green, KY 42101
(270) 901-1225

Franklin-Simpson Center
175 Davis Drive
Franklin, KY 42134
(270) 901-1119

General Information

Admissions
(270) 901-1094
Denna White

Adult Education & Literacy
(270) 901-1013
Brian Becker

Business Office
1-855 246-2482
Chris Cumens

Workforce Solutions
(270) 901-1033
Dr. James McCaslin

Assessment & Testing
(270) 901-1036
Elaine Yates

Disability Services
(270) 901-1202
Pam Bulle

Financial Aid
1-855-246-2482
Jennifer Wells

Human Resources
(270) 901-1115
Sherri Forester

Institutional Advancement
(270) 901-1116
Heather Rogers

Library
(270) 901-1155
Janice Gabbard

Public Relations
(270) 901-1117
Mark Brooks
Administration

President
Provost
Interim Vice President of Student and Organizational Success
Vice President of -Finance and Administration
Vice President of Outreach and Community Development
Executive Director of SKYCTC Foundation & Associate Vice President of Advancement
Director of Human Resources
Deans
Arts and Humanities
Applied Technology
Allied Health and Nursing and Director, Glasgow Campus
Mathematics and Sciences
Engineering and Machine Tool Technology
Business

Faculty

Adams, Elizabeth C, Assistant Professor, MA, Western Kentucky University, 2012
Adams, Jessica L, Assistant Professor, MS, Murray State University, 2001
Ariyawansa, Chandana, Assistant Professor, MS, University of Peradeniya, 2002
Atwell, Sheila D, Assistant Professor, MSN, Western Kentucky University, 2005
Barron, Kristine D, Instructor, MBA, The University of Texas at Dallas, 2013
Bayer, Jessica, Assistant Professor, MS, Southern Illinois University, 2007
Beagle, Gary W, Associate Professor, MA, Western Kentucky University, 1995
Bourque, Brittany, Assistant Professor, BSN, Western Kentucky University, 2005
Bradford, Joshua, Assistant Professor, BS, Western Kentucky University, 2006
Bromson Jr, James P, Professor, BS, Madison University, 2002
Case, Joseph C, Instructor, MA, Trevecca Nazarene University, 2011
Crews, Debra, Assistant Professor, AS, Western Kentucky University, 1997
Combs, Rex Allen, Professor, MS, Western Kentucky University, 2014
Conner, Rebecca E, Assistant Professor, Ph.D Texas Woman’s University, 1996
Dolly, Phetsamone Om, Instructor, BS, Western Kentucky University, 1999
Doyle, Janel C, Professor, MA, Western Kentucky University, 2015
Ellis, Claudean, Assistant Professor, MA, Nova Southeastern University, 2005
Faine, John B, Assistant Professor, MS, Northern Kentucky University, 2006
Finley, Joseph Lynn, Associate Professor, MS, University of Kentucky, 2002
French, Esther G, Instructor, MA, University of Southern Mississippi, 2005
Florence, Christina M, Assistant Professor, MA, Western Kentucky University, 2012
Fuller, Mary M, Professor, BS, Western Kentucky University, 2000
Galloway, Angela M, Assistant Professor, MS, University of Kentucky, 2005
Gaskins, Carmen C, Professor, MS, Western Kentucky University, 1994
Gentry, Traci, Associate Professor, MSN, Western Kentucky University, 2011
Greer, Michael, Associate Professor, AA, Bowling Green Technical College, 2012
Harlan, Angela K, Professor, MSN, Western Kentucky University, 2007
Harris, Myria, D, Assistant Professor, MA, Chamberlain College of Nursing, 2013
Hatcher, Steve A, Professor, BS, Western Kentucky University, 2011
Hook, Margaret, R, Assistant Professor, MA, Western Kentucky University, 2012
Houchens, Charles D, Associate Professor, MS, Western Kentucky University, 2009
Hunt, Jon D, Associate Professor, AAS, Bowling Green Technical College, 2006
Jeter, Christopher N, Assistant Professor, BS, Western Kentucky University, 2009
Jones, Charles D, Assistant Professor, MA, Savannah College of Art and Design, 1990
Kennedy, Barry A, Associate Professor, MA, Western Kentucky University, 2003
Konneh, Davidetta E, Instructor, Ph.D, University of Liberia, 1989
LeFevre, Katherine A, Assistant Professor, MS, University of Kentucky, 2007
Lindsey, Jason E, Instructor, AAS, Southcentral Kentucky Community and Technical College, 2012
Lindsey, John L, Associate Professor, BS, ITT Technical Institute – Indianapolis, 1993
McKenney, Ken D, Assistant Professor, BS, Western Kentucky University, 2014
Moore, Wendy B, Assistant Professor, MSN, Western Kentucky University, 2006
Moorman, John K, Assistant Professor, BS, Western Kentucky University, 1977
Mulally, Aaron T, Assistant Professor, MA, The College of Saint Scholastica, 2007
Murphy, Terrell W, Associate Professor, MA, Western Kentucky University, 1993
Norrod, Amy Paige, Assistant Professor, BS, Mid Continent University, 2008
Otto, Kimberly D, Associate Professor, MA, Western Kentucky University, 2006
Palmer, Jahi M, Instructor, MS, Western Kentucky University, 2014
Papalouca, Loucas, Associate Professor, MS, Western Kentucky University, 1989
Patel, Virendrakumar Anikumar, Assistant Professor, MA, Eastern Kentucky University, 2010
Pennycuff II, Donald B, Associate Professor, MS, Western Kentucky University, 2007
Phipps, Jeffery W, Professor, BS, Western Kentucky University, 2000
Potter, Bruce D, Instructor, MA, Western Kentucky University, 2004
Prollitt, Jessica, F, Assistant Professor, BSN, Western Kentucky University, 2012
Riggs, Michael W, Professor, Ed.D, University of Louisville, 2009
Royce, Christopher L, Assistant Professor, BS, Murray State University, 2004
Sandefur, Ryan P, Associate Professor, MS, Western Kentucky University, 2004
Shive, April, Associate Professor, MSN, Western Kentucky University, 2011
Shoemake, Jennifer J, Professor, MSN, Western Kentucky University, 2005
Slaughter, Lori A, Professor, MA, Western Kentucky University, 2010
Smith, Shelena R, Assistant Professor, MA, Eastern Kentucky University, 2011
Sparks, Richard B, Associate Professor, BS, University of Kentucky, 2003
Stagner, Phillip W, Assistant Professor, MA, 2004, Webster University, 2004
Stephens, Jeremy D, Assistant Professor, AAS, Bowling Green Technical College, 2010
Tackett, Kristina, Assistant Professor, MS, Western Kentucky University, 2009
Taylor, Maria, Assistant Professor, MA, University of Louisville, 2007
Taylor, Michael O, Professor, BA, Western Kentucky University, 1972
Trivett, Darrell S, Instructor, AS, Western Kentucky University, 2011
Turner, James R, Instructor, MA, Western Kentucky University, 1972
Turner, Kerry S, Associate Professor, AAS, Bowling Green Technical College, 2008
Varney, Bertena, Assistant Professor, MA, Morehead State University, 1998
Waggoner, Constance, J, Associate Professor, MS, Capella University, 2009
Ward, Teresa Y, Assistant Professor, MS, Troy University, 1983
Wendt, Leah D, Assistant Professor, MA, California State Polytechnic University, 2008
West, Jared D, Instructor, AAS, Southcentral Kentucky Community and Technical College, 2006
White, Renee, Assistant Professor, Ph.D, University of Louisville, 2003
Williams, Thomas W, Associate Professor, MA, Western Kentucky University, 2007
Wilkins, Diane A, Professor, MA, University of Kentucky, 1999
Young, Lisa, Instructor, MA, Western Kentucky University, 1987
Youngquist, Sherry W, Instructor, MA, Western Kentucky University, 1997

Records
(270) 901-1001
Transfer Information Liaison
(270) 901-1001
Veterans Affairs
(270) 901-1003
Website
(270) 901-1160
Mission Statement/Status of Accreditation

Founded in 1960, Southeast Kentucky Community and Technical College is a public, comprehensive community and technical college under the governance of the Kentucky Community and Technical College System (KCTCS). The college serves the southeastern Kentucky region and provides:

- Associate in Arts and Associate in Science degree programs and courses designed to prepare individuals to succeed in baccalaureate programs at senior colleges and universities;
- Associate in Applied Science degree programs, certificates programs, diploma programs and courses designed to prepare individuals to succeed in today’s technological workforce;
- Continuing education, training activities and services designed to expand life skills and knowledge of our citizens, strengthen the existing workforce, and enhance community and business development;
- Academic support and developmental education courses and experiences designed to prepare individuals for success in transfer, technical, and continuing education programs and courses; and
- Resources to promote the preservation of Appalachian culture by stimulating artistic expressions, serving as a depository for the region’s history and cultural traditions, providing a forum for the arts through cross-cultural experiences, and promoting the arts in education.

Southeast Kentucky Community and Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Southeast Kentucky Community and Technical College.

Note: The Commission is to be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard.

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

Air Conditioning Technology (C, D)
Appalachian Studies (C)
Auto Body/Collision Repair Technology (C, D)
Automotive Technology (C, D)
Business Communications (C)
Business Foundations (C)
Business Studies:
- Business Administration Systems (C, A)
- Medical Information Technology (C, D)
- Computer Aided Drafting and Design (C, D)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D)

Construction Technology (C, D)
Criminal Justice (C, A)
Diesel Technology (C, D, A)
Education (A)
Emergency Medical Services – Paramedic (C)
Emergency Medical Technician (C)
Engineering Related – Project Lead the Way (PLTW) (C)
Engineering and Electronics Technology (C, D)
General Occupational/Technical Studies (A)
Heavy Equipment Operation (C, D)
Interdisciplinary Early Childhood Education (C)
Manufacturing Industrial Technology:
- Electrical Technology (C, D)
- Industrial Maintenance Technology (C, D)
Medical Assisting (C, D)
Medical Laboratory Technology (C, A)
Mining Technology (C)
Nursing (A)
Physical Therapist Assistant (A)
Practical Nursing (C)
Professional Craft: Pottery (C)
Radiography (C, A)
Respiratory Care (A)
Surgical Technology (D, A)
Surveying & Mapping Technology (C)
Welding Technology (C, D)
Workplace Safety Specialist (C)

Contact Information

Southeast Kentucky Community and Technical College
700 College Road
Cumberland, KY 40823
(606) 589-2145
southeast.kctcs.edu

Harlan Campus
164 Ball Park Road
Harlan, KY 40831
(606) 573-1506

Middlesboro Campus
1300 Chichester Avenue
Middlesboro, KY 40965
(606) 242-2145

Pineville Campus
10350 South US 25E
Pineville, KY 40977
(606) 337-3106

Whitesburg Campus
2 Long Avenue
Whitesburg, KY 41858
(606) 633-0279

General Information

Academics: Elijah Buell (606) 589-3040
Admissions: Rebecca Parrott (606) 589-3018
Business Affairs: Angela Simpson 1-855-2GO-SKCTC (1-855-246-7528)
Workforce Solutions: Vic Adams (606) 248-0416
Disability Services: Shana Lewis (606) 589-3019
Financial Aid: Barbara Gent 1-855-2GO-SKCTC (1-855-246-7528)
Human Resources: Billie Franks (606) 589-3029
Library: Lynn Cox (606) 589-3070
Public Relations: Tiffany Scott (606) 589-3198
Brandon Robinson
Registration/Records: Anita Barnhill (606) 248-0137
Transfer Information Liaison: Georgina Billings (606) 248-0853
Veterans Affairs: Rebecca Parrott (606) 248-0145
Website southeast.kctcs.edu

Academics: Elijah Buell (606) 589-3038
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Disability Services: Shana Lewis (606) 589-3019
Financial Aid: Barbara Gent 1-855-2GO-SKCTC (1-855-246-7528)
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Brandon Robinson
Registration/Records: Anita Barnhill (606) 248-0137
Transfer Information Liaison: Georgina Billings (606) 248-0853
Veterans Affairs: Rebecca Parrott (606) 248-0145
Website southeast.kctcs.edu

Administration
President Dr. F. Lynn Moore
Chief Academic Affairs Officer Elijah Buell
Chief Business Affairs Officer Angela Simpson
Chief Student Affairs Officer Dr. Rebecca Parrott
Chief Institutional Advancement Officer/Operations Scott Sherman
Chief Learning Officer Dr. Rick Mason
Chief Community/Workforce Econ. Dev. Dr. Vic Adams
Chief Information Tech Officer Merrill Galloway
Chief Cultural Diversity Officer Carolyn Sundy
Director of Human Resources Billie Franks
Director of Public Relations Tiffany Scott
Division of Allied Health and Related Technologies Michael S. Good
Division of Arts & Humanities Ann Maciula
Division of Industrial Technology Ronnie Daniels
Division of Natural Sciences and Mathematics Rhonda L. Creech
Division of Nursing and Related Technologies H. Kathy Guyn
Division of Social & Behavioral Sciences Kevin Lambert

Faculty
Adkins, Tracy, Instructor, BS, Lincoln Memorial University, 2010
Ahlstedt, Lisa A, Librarian I, MS, University of Tennessee, 1995
Bargo, Glenna, Associate Professor, MSN, Eastern Kentucky University, 2008
Barrick, Lisa, Instructor, M.Ed., Lincoln Memorial University, 2010
Blanton, Scott, Professor, MSN, Northern Kentucky University, 2011
Bowling, Kenneth N, Professor, BS, Union College, 2003
Bowling, Tracy, Professor, PT, DPT, University of Kentucky, 2010
Bowling, Roger A, Professor, MS, Eastern Kentucky University, 2000
Brooks, Lana, Assistant Professor, MSN, Western Kentucky University, 2014
Buell Jr, Elijah, Professor, MBA, Morehead State University, 1980
Burnside, Patricia, Professor, MAEd, Tusculum College, 2007
Carmack, Michael E, Professor, AAS, Harlan Regional Technology Center, 1995
Chapman, Tammie, Associate Professor, MA, Cumberland College, 1995
Clark, Darrin, Associate Professor, MS, University of Kentucky, 1999
Cloud, Victoria, Assistant Professor, MA Ed, Western Kentucky University, 2014
Clutts, David W, Professor, Ed.D, Liberty University, 2010
Collier, William G, Professor, MA, Eastern Kentucky University, 1992
Conklin, Peggy, Professor, MA, Morehead State University, 1985
Cooker, Edwin Wheeler, Professor, PhD, Cincinnati, 1996
Corrization, Michael S, Professor, MA, Stephen Austin State University, 1967
Cox, Donna, Associate Professor, MA, Union College, 1973
Cox, Lynn, Librarian I, MS, University of Kentucky, 1994
Creech, Rhona, Associate Professor, MA, Morehead State University, 2003
Creech, Rhonda L, Professor, MA, Morehead State University, 1996
Daniels, Ronnie W, Professor, BS, Eastern Kentucky University, 2000
Dingus, Ariel, Assistant Professor, MA, Middle Tennessee State University, 2012
Dixon, Jill Suzanne, Associate Professor, DPT, University of Kentucky, 2011
Druen, Matthew, Instructor, Ph.D, University of Louisville, 2010
Dyer, Bradley, Professor, M.S., Eastern Tennessee State University, 1990
Eldahan, Ismail A, Associate Professor, MS, American Sentinel University, 2008
Epling, Michael, Professor, MBA, Morehead State University, 1992
Fields, Brian, Instructor, M.S., Everest University, 2010
Fleming, April, Assistant Professor, BSN, Morehead State University, 2013
Forbes, Zelma M, Professor, MS, Ohio University, 1983
Forson-Scopa, Elana, Associate Professor, MS, Eastern Kentucky University, 2003
Forson, Jason, Assistant Professor, MS., University of Missouri, Kansas City, 2010
Gipe, Robert H, Professor, MA, University of Massachusetts, 1988
Good, Michael S, Professor, MS, Eastern Kentucky University, 2001
Gordon, Sheila, Professor, MLS/MSW, University of Kentucky, 2014/1995
Greene, Steven T, Associate Professor, AS, Southeast Kentucky Community and Technical College, 2008
Greer-Pitt, Sue, Professor, PhD, University of Kentucky, 1984
Guyan, Hazel K, Professor, MSN, Bellarmine University, 1989
Halcum, Jr, Astor, Professor, BUS, Morehead State University, 1992
Helton, Melissa, Associate Professor, MFA, Bowling Green State University, 2006
Hensley, Evelyn M., Librarian II, MS University of Kentucky, 2006
Herren, Douglas, Associate Professor, AAS, Southeast Kentucky Community and Technical College, 2006
Holbrook, Sandy, Professor, M.Ed, Western Kentucky University, 2011
Huff, Margie G, Professor, MS, Eastern Kentucky University, 2008
Hughes, Carlton W, Professor, MA, Marshall University, 1987
Jackson, Terri, Assistant Professor, MSN, Western Kentucky University, 2014
Johnson, Joseph, Associate Professor, PhD, Clemson University, 2010
Johnson, Lori, Associate Professor, RRT, BS, Eastern Kentucky University, 2014
Jones, Jamie, Instructor, MA, East Tennessee State University, 2006
Jones, Lynn, Professor, MA, Eastern Kentucky University, 1983
Kidwell, David T, Professor, PhD, University of Kentucky, 1993
Lambert, Kevin, Professor, MS, University of Tennessee, 1994
Lawson, Rebecca L., Associate Professor, CST, BA, Ashford University 2007
Layne, Kenneth, Assistant Professor, BS, Eastern Kentucky University, 1988
Maciola, Terry A, Professor, MA, Oklahoma State University, 1991
Marcum, Joseph S, Professor, MA, University of Tennessee, 1980
Mayes, Caroline, Assistant Professor, MA, National University, 2007
McDaniel, James H, Associate Professor, PhD, Southern Illinois University at Carbondale, 1981
McDonnell, Raymond E., Associate Professor, PhD, University of Tennessee, 1997
Miles, Nancy, Associate Professor, Certificate, Mountain Empire Community College, 1976
Miller, Rebecca D, Professor, MA, Union College, 1998
Murphy, Kevin, Librarian I, MLS, University of Kentucky, 1995
Newman, Kathy, Associate Professor, M.Ed, Lindsey Wilson College, 2004
Noe, Roger, Professor, Ed.D, University of Kentucky, 1990
Omar, Sarah, Associate Professor, PhD, Mississippi State University, 1987
Pennington, Joy, Associate Professor, MSN, Chamberlain College of Nursing, 2013
Powell, Susan, Associate Professor, MA, University of Louisville, 2011
Ray, Johnny E, Associate Professor, BS, Eastern Kentucky University, 2000
Saylor, Ellen W, Professor, MSN, Bellarmine University, 1987
Schertz, Ann E, Professor, MA, Indiana University, 1986
Scopa Jr, Joseph A, Professor, MFA, Pennsylvania State University, 1976
Silver, Roy, Professor, PhD, University of Toledo, 1982
Simpson, Amelia, Professor, MFA, Spalding University, 2013
Simpson, Astor, Professor, MAEd, Union College, 1982
Singh, Rajiv, Assistant Professor, MS, University of North Dakota, 2012
Smith, Marshall, Assistant Professor, AAS, Southeast Kentucky Community and Technical College, 2011
Steenberger, Gary L, Professor, MS, Eastern Kentucky University, 1996
Stewart, Jenny, Assistant Professor, BS, University of Kentucky, 1982
Sund, Carolyn M, Professor, MSEd, University of Kentucky, 1982
Turner, Mark, Instructor, BS from EKU, 1994
Vaugh, Jamie, Professor, MBA, University of Kentucky, 1981
Walker, Robert, Assistant Professor, 22 years Occupational Experience
Webb, Danny, Associate Professor, MA, Eastern Kentucky University, 1994
Webb, Selinda, Associate Professor, MAEd, Morehead State University, 1981
Whited, Paula, Assistant Professor, MSN, University of Louisville, 2007
Wilson, Odell D, Professor, EdD, East Tennessee State University, 1987
Wright, Wendy, Associate Professor, MS, Eastern Kentucky University, 2015
Mission Statement/Status of Accreditation

The mission of West Kentucky Community and Technical College is to provide excellence in teaching and learning, promote student success, and support economic development.

To accomplish this mission, West Kentucky Community and Technical College will provide the following:

- Academic, general education, and technical courses leading to certificates, diplomas, and associate degrees.
- A general academic curriculum of university-parallel courses meeting transfer requirements of the first two years of a baccalaureate degree.
- Technical and occupational curricula designed to meet current and future workforce needs.
- Community partnerships as an integral component in assessing and providing programs for cultural, educational, economic, and civic development.
- A comprehensive program of transitional education.
- Customized training to meet the changing needs of business and industry.
- Adult and continuing education.
- Associate services including, but not limited to, library services, cultural and enrichment opportunities, information technology resources, and student support services.

West Kentucky Community and Technical College, a member of the Kentucky Community and Technical College System, is a public, two-year degree granting institution serving western Kentucky with a tradition of accessible, affordable, and quality education and a commitment to meet the academic, workforce training, and lifelong learning needs of the community.

West Kentucky Community and Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of West Kentucky Community and Technical College.

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Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Transfer Curricula/Art Related

An Associate in Fine Arts (AFA) degree is designed to transfer into a Baccalaureate of Fine Arts (BFA) program at a four-year institution. Individual Associate in Fine Arts (A) degree curricula in each group is noted by an A in parenthesis.

- Visual Art (A)

Occupational/Technical Curricula

Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.

- Advanced Nursing Assistant (C)
- Air Conditioning Technology (C, D)
- Apprenticeship Studies (A)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, D, A)
- Business Studies:
  - Administrative Office Technology (C)
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
  - Computer Aided Drafting and Design (C, D)
  - Computer and Information Technologies (C, A)
  - Computerized Manufacturing and Machining (C, D, A)
  - Cosmetology (C, D)
  - Criminal Justice (C, A)
  - Culinary Arts (C, D, A)
  - Dental Assisting/Dental Hygiene (D)
  - Diesel Technology (C, D)
  - Diagnostic Medical Sonography (A)
  - Emergency Medical Services – Paramedic (C, A)
  - Emergency Medical Technician (C)
  - Fire/Rescue Science Technology (C, D, A)
  - General Occupational/Technical Studies (A)
  - Health Physics (C)
  - Health Science Technology (A)
  - Heavy Equipment Operation (C)
  - Homeland Security/Emergency Management (C, A)
  - Interdisciplinary Early Childhood Education (C, A)
  - Logistics and Operations Management (C, A)
  - Manufacturing Industrial Technology:
    - Electrical Technology (C, D, A)
    - Industrial Maintenance Technology (C, D, A)
  - Marine Technology (C, A)
  - Mechatronics (C)
  - Medical Laboratory Technology (C, A)
  - Nursing (A)
  - Pharmacy Technology (C)
  - Physical Therapist Assistant (A)
  - Practical Nursing (C, D)
  - Radiography (C, A)
  - Surgical Technology (A)
  - Truck Driver Training (C)

Visual Communication:

- Design & Technology (C)
- Multimedia (C, D, A)
- Printing (C)
- Welding Technology (C, D)

Contact Information

West Kentucky Community and Technical College
4810 Alben Barkley Drive
Paducah, KY 42001
(270) 554-9200
westkentucky.kctcs.edu
General Information

- Accessibility Services: (270) 534-3406
- Admissions/Records: 1-855-GO-WKCTC (1-855-469-5282)
- Advising Center: 1-855-GO-WKCTC (1-855-469-5282)
- Adult Learning Center (Adult Education/GED program):
  - McCracken County: (270) 534-3451
  - Graves County: (270) 856-2422
- Assessment Center: 1-855-GO-WKCTC (1-855-469-5282)
- COMPASS Testing:
  - Bookstore (Anderson Technical Building): (270) 534-3247
  - Challenger Learning Center: (270) 534-3101
  - Clemens Fine Arts Center Box Office: (270) 534-3212
  - Community Education: (270) 534-3335
  - Commonwealth Middle College: (270) 534-3350
- TRIO - Student Support Services (270) 534-3180
- Workforce Solutions Assessments: (270) 534-3490
- Skilled Craft Training Center (Mayfield): (270) 534-3466
- Public Relations: (270) 534-3083
- Purchase Training Center (Mayfield): (270) 247-9633
- Library: (270) 534-3197
- Human Resources: (270) 534-3078
- General Information: (270) 554-9200
- Student Services: 1-855-GO-WKCTC (1-855-469-5282)
- Financial Aid: 1-855-GO-WKCTC (1-855-469-5282)
- GED/Adult Learning Center:
  - McCracken County: (270) 534-3451
  - Graves County: (270) 856-2422
- Commonwealth Middle College: (270) 534-3350
- COMPASS Assessment Center: 1-855-GO-WKCTC (1-855-469-5282)
- Website: westkentucky.kctcs.edu

Faculty

- Atkins, Rhonda J, Professor, MA, Murray State University, 1985
- Aho, Paul R, Associate Professor, MFA, University of South Florida, 1979
- Akin, Seneca R, Professor, EdD, Vanderbilt University, 2010
- Akogic, Felix O, Professor, PhD, University of IFE, Nigeria, 1985
- Arnone, Samuel J, Assistant Professor, BS, Southern Illinois University, 1998
- Blaine, Patricia A, Professor, MA, Fort Hays State University, 1981
- Blankenship, Michelle, Instructor, MSN, Indiana Wesleyan University, 2013
- Block, Peggy R, Professor, MHS, University of Indianapolis, 1996
- Brackin, Kyra E, Assistant Professor, MSN, University of Kentucky, 1996
- Brown, Rebecca H, Associate Professor, PhD, Virginia Tech, 2009
- Buchanan, Patricia A, Professor, BS, Murray State University, 2008
- Burgess, Melissa A, Instructor, MS, Murray State University, 2000
- Calhoun, Charles S, Assistant Professor, MS, California Polytechnic State University, 2009
- Caldwell, Paul H, Assistant Professor, AS, Murray State University, 2009
- Carrico, Mary C, Professor, MS, Southern Illinois University at Carbondale, 1991
- Cates, Joel D, Assistant Professor, MS, Murray State University, 2011
- Colharp, Heathere L, Associate Professor, MSE, University of Kentucky, 1999
- Courtney, Troy G, Instructor, MBA, Dowling College, 2003
- Darnell, Laken N, Instructor, BSN, Murray State University, 2013
- Day, Jamie A, Associate Professor, BIS, Murray State University, 2015
- Dickerson, Craig T, Associate Professor, AAS, West Kentucky Community and Technical College, 2008
- Dillard, Laura L, Instructor, BSN, Murray State University, 1989
- Donner, Jason W, Associate Professor, MA, Murray State University, 1995
- Dossett, Kimberly M, Instructor, AAS, Community College of the Air Force, 1997
- Dotson, Megan E, Associate Professor, MAE, Murray State University, 2010
- Draffen, Carla K, Professor, MBA, Murray State University, 1987
- Driver, Timmy E, Associate Professor, AAS, West Kentucky Community and Technical College, 2006
- Durbin, Laura R, Associate Professor, MSN, Indiana Wesleyan University, 2013
- Durham, Elizabeth A, Assistant Professor, MA, Nazareth College, 1988
- Engelland, Erik J, Instructor, AAS, West Kentucky Community and Technical College, 2010
- Ewing, Cheryl L, Associate Professor, MSE, American Sentinel University, 2013
- Fletcher, Patrick A, Associate Professor, BBA, University of Kentucky, 2001
- Flynn, Maria K, Professor, MA, Murray State University, 1985
- Gericke, Kevin L, Professor, PhD, Virginia Polytechnic Institute, 1993
- Ghosh, Shari D, Professor, MSN, Vanderbilt University, 1997
- Goodaker, Gary W, Professor, MS, University of Illinois at Urbana Champaign, 1997
- Green, Curtis D, Instructor, AAS, Southern Illinois College, 2009
- Gunn, Robert G, Associate Professor, BA, University of Alaska Fairbanks, 1981
- Harper, Shawn, Associate Professor, MA, Murray State University, 1990
- Hasegawa, John S, Associate Professor, MFA, University of Oregon, 2000
- Helfin, Edward D, Associate Professor, EdD, Murray State University, 1983
- Helfin, David J, Associate Professor, EdD, University of Kentucky, 2015
- Hely, Sueann Wade, Professor, BSN, Murray State University, 1983
- Henderson, Tyra F, Assistant Professor, MA, Murray State University, 2001
- Henry, Gretta G, Assistant Professor, MS, Murray State University, 2004
- Hlinka, Karen F, Professor, EdD, University of Kentucky, 2012
- Hobbs, Darren J, Instructor, BS, Western Kentucky University, 2015
- Hofer, William S, Instructor, AAS, West Kentucky Community and Technical College, 2011
- Holland, Virgil T, Associate Professor, AS, Murray State University, 2012
- Hopper, Carrie, Assistant Professor, MS, Murray State University, 2008
- Housholder, Paul D, Associate Professor, AAS, Murray State University, 2001
- Howard, William D, Instructor, AAS, West Kentucky Community and Technical College, 2016
- Hutchinson, Sharla E, Professor, MA, Western Kentucky University, 1980
- Isenberg, Paula R, Associate Professor, MSN, University of Southern Indiana, 2010
- Johnson, Jonathan B, Assistant Professor, MS, Bellevue University, 2012
- Johnson, Karen H, Assistant Professor, EdD, Trevecca Nazarene University, 2012
- Johnson, Margaret F, Associate Professor, MSN, University of Phoenix, May 2011
- Jones, Latoya A, Associate Professor, DC, Life University, 2001
- Jordan, Tracy L, Associate Professor, MA, Murray State University, 1986
- Knapp, Jo A, Professor, MA, Murray State University, 1990
- Lee, Bobby A, Professor, MS, Murray State University, 1995
- Liu, Sarah S, Associate Professor, PhD, Old Dominion University, 2006
- Mahoney, Joseph D, Professor, MA, Murray State University, 1990

Administration

- President/CEO: TBA
- Vice President of Academic Affairs: Dr. Tena Payne
- Vice President of Workforce & Economic Development: Jim Pape
- Vice President of Student Development: Dr. Belinda Dalton-Russell
- Vice President of Business Affairs: Susan Graves
- Vice President of Administrative Services: John Carrico
- Vice President of Enrollment Management: Nate Slaton
- Vice President of Institutional Advancement: Ashley Wright
- Director of Human Resources: Bridget Caner
- Director of Marketing and Public Relations: Janett Blythe
- Director of the Clemens Fine Arts Center: Brian Heller
- Director of Adult Education: Samantha Williams
- Associate Vice President of Academic Affairs: Dr. David Helfin
- Associate Vice President of Learning Initiatives: Dr. Renea Akin
- Dean of Online Learning: Connie Helfin
- Dean of Allied Health and Personal Services Division: Peggy Block
- Dean of Applied Technologies Division: Stephanie Milliken
- Dean of Business and Computer Related Technologies Division: Tammy Potter
- Dean of Humanities, Fine Arts and Social Sciences Division: Britton Shurley
- Dean of Nursing Division: Shari Ghoshon
- Dean of Paducah School of Art and Design Division: Paul Aho
- Dean of Transition Education Division: Sanci Teague
- Dean of Science and Mathematics Division: Dr. Karen Hlinka

- Mahoney, Joseph D, Professor, MA, Murray State University, 1990
Martin, Patricia A, Associate Professor, MSN, Murray State University, 2000
McDanel, Tracy L, Associate Professor, BS, Murray State University, 2009
McGullion, Allison S, Associate Professor, MS, University of Colorado at Denver, 1998
McMullen, DeAnn J, Professor, MEd, Memphis State University, 1989
Miller, Rhonda G, Assistant Professor, BSN, Murray State University, 1988
Morgan, Tiffinee S, Professor, MA, Murray State University, 1998
Newborn, Bradley C, Instructor, AAS, West Kentucky Community and Technical College, 2013
Nickell, David L, Professor, MA, Western Kentucky University, 1982
Norwood McGregor, Vanessa A, Associate Professor, MSN, Frontier Nursing University, 2009
Payne, Tena B, Professor, EdD, University of Kentucky, 2001
Perry, Carolyn K, Associate Professor, MBA, Thunderbird School of Global Management, 1980
Petitt, Christy L, Associate Professor, MSN, University of Southern Indiana, 2007
Potter, Tammy F, Professor, MAEd, Murray State University, 1993
Pruitt, Douglas L, Professor, PhD, Bowling Green State University, 2000
Quimby, Beverly F, Professor, BS, Mid-Continent University, 2007
Ragsdale, Tina L, Assistant Professor, MS, Southern Illinois University at Carbondale, 2008
Reese, Gary L, Associate Professor, MPA, Murray State University, 1987
Roof, Sally, Professor, MS, Murray State University, 2002
Russell, Kimberly G, Associate Professor, MA, Southeast Missouri State University, 2000
Senn, Catherine E, Professor, MS, Johns Hopkins University, 1995
Shurley, Britton M, Associate Professor, MFA, Indiana University, 2007
Simmons, Randall R, Professor, MFA, University of Cincinnati, 1995
Spelbring, Legatha F, Associate Professor, MA, Indiana State University, 2002
Stephenson, Lisa G, Professor, EdD, University of Kentucky, 2012
Stewart, Michael E, Professor, MS, Murray State University, 1977
Stoffel, Claudia A, Professor, MSN, Bellarmine College, 1992
Stringer, Amanda P, Instructor, AAS, Henderson Community College, 2002
Swain, Deborah J, Professor, BS, Murray State University, 2008
Tavares, Victor M, Assistant Professor, PhD, Pennsylvania State University, 2009
Taylor, Brent E, Assistant Professor, MA, Murray State University, 2002
Taylor, Jason D, Professor, MS, Murray State University, 2000
Teague, Sanci E, Assistant Professor, MA, Murray State University, 2009
Thompson, Julie E, Associate Professor, MAT, Murray State University, 1999
Toon, Nichole M, Associate Professor, BS, Murray State University, 2009
Vallery, Deborah L, Assistant Professor, MSN, University of Southern Indiana, 2014
Vogel, Valerie R, Associate Professor, MS, Murray State University, 2007
Vos, John D, Professor, MBA, Murray State University, 1989
Wade, Constance L, Professor, MA, Murray State University, 1991
Waldington, Corey M, Professor, MAE, Austin Peay State University, 1999
Wallace, Stanley C, Instructor, AA, University of Phoenix, 1996
Walters, Nacole G, Instructor, AAS, West Kentucky Community and Technical College, 2003
Watkins, Gerald L, Professor, MBA, Murray State University, 1984
Westerfield, Mark A, Associate Professor, AAS, West Kentucky Community and Technical College, 2005
Witherspoon, Reta P, Assistant Professor, AAS, West Kentucky Community and Technical College, 2005
Wright, Kelly R, Professor, MS, Murray State University, 1984
Youngblood, Norita A, Professor, MS, Murray State University, 2004
Applying for Admission

A student enrolling at a KCTCS college for the first time must submit an application for admission. Students who are re-entering a KCTCS college after being out for one or more semesters should complete an application for readmission. Students may be admitted to a KCTCS college as freshmen, as students with transfer credit from other institutions, as visiting students, or as non-degree students. KCTCS colleges admit students who have graduated from high school, who have earned a high school general equivalency diploma, who are eligible to pursue a GED, or who are dually enrolled in high school and the college.

Admission and Registration Procedures

- Prospective students visit the college’s website to complete an online application or contact the admission office of the college they wish to attend and request an admission application.
- The full and proper name of the student and KCTCS student ID number must be used in registration and for all other official purposes.
- Freshmen entering a college for the first time will be required to send an official copy of their high school transcript, GED, or state approved high school equivalency to the admission office of the college they plan to attend. Official high school transcripts submitted to KCTCS may be shared with all KCTCS Colleges.
- Applicants entering with transfer credit must have an official transcript from each college attended forwarded to the admission office of the college they plan to attend.
- Applicants should submit results of the American College Test® (ACT), KYOTE, COMPASS® or Scholastic Aptitude Test® (SAT). Applicants who have not taken the ACT® or other placement exam must complete a placement examination administered by any KCTCS college. For specific information regarding course placement, students should refer to the KCTCS Assessment and Placement Policy, which is available on the website at kctcs.edu, under “Students”, then “Academic Regulations”.
- Admission to a college does not guarantee admission to a specific program. Applicants seeking admission to an occupational/technical program at any KCTCS college should contact the admission office of the college of interest for information regarding any special requirements for program admission.
- Applicants must submit an application for admission and supporting documents prior to the first day of classes of the term or session for which the student plans to enroll. Some colleges, however, may have an earlier deadline date. Students should check with the admission office of the college they plan to attend for registration/application deadlines.
- A student who applies for admission to a KCTCS college will receive instructions to establish access to Student Self-Service. Student Self-Service allows a student access to many services such as registration, grades, class schedule, financial aid awards, bill payment and many other services.
- All enrolled KCTCS students will be given access to a KCTCS-assigned email account. Official communication from faculty and student service personnel will be sent to this address. Students will continue to have access to this account as long as they are enrolled. After receiving the completed application and other documents, the admission office will notify the applicant of his or her admission status. It is expected that all students will submit all required documents in order to be eligible to register for classes. In the event this is not possible, students should contact the Admissions Office of the KCTCS college they wish to attend for instructions or assistance. While provisions may be provided, students will not be permitted to register for subsequent semesters without all official required documents.

Non-Degree/Non-Credential Students

At the discretion of the institution, persons who desire instruction without wishing to earn a credential may be admitted as non-degree/non-credential students. These students are exempt from taking the assessment instrument; however, all students (including high school students) must meet individual pre-requisites such as those for entry-level English and mathematics courses.

Students may declare credential seeking status after meeting regular admission requirements. The college may review and reclassify credential-seeking status in accordance with policies established at each individual college. Non-degree/non-credential students are not eligible for Federal Financial Aid programs.

Credit earned before a student meets admission requirements will be counted toward a credential.

High School Students

The condition of graduation from high school may be waived for a student currently enrolled in high school subject to the following guidelines. All applicants shall submit:

- a KCTCS application for admission by the appropriate deadline
- the results of the ACT®, SAT®, KYOTE, and/or other approved placement scores in accordance with KCTCS Assessment and Placement Policy.

A college may require additional information as part of the admission process.

In some cases, courses offered on the high school campus carry both high school and college credit. See your high school counselor for more information.

Second Chance Students

A student who has previously attended a college or university – other than a college in the Kentucky Community and Technical College System – and who has less than an overall grade-point average of 2.0 on a 4.0 scale in all course work attempted, may be considered for admission on probation provided the applicant demonstrates both of the following:

- has not enrolled at a college or university for at least one 16-week semester, and
- can demonstrate potential for success.

Transient/Visiting Students

A student may be admitted as a transient or visiting student. However, the student’s parent college must certify that the student is enrolled or eligible to enroll at parent institution. Admission as a transient or visiting student is valid only for the semester or session for which the student applies.
International Students

Some KCTCS colleges are authorized under Federal law to enroll non-immigrant students. Consult the admission office of your college for details.

Readmission after Two or More Years: Academic Bankruptcy

A student who has been readmitted after having remained out of a KCTCS College for a period of two or more years and who has completed at least 12 credit hours in college-level courses with a grade point average of 2.0 or better after readmission, may choose to have his/her previous KCTCS course work removed from the computation of the grade point average. This procedure is commonly called "academic bankruptcy."

A student who declares academic bankruptcy will continue to receive credit for those courses in which a grade of A, B, C, D, or P was earned prior to readmission without including those grades in the GPA computation. A student who has completed a credential and re-enrolls may not apply the academic bankruptcy rule to courses taken for the credential already completed.

Previous College Work

An applicant who has previously attended an accredited college or university which awards degrees at the associate level or higher and who has an overall grade point average of at least 2.0 on a 4.0 scale in all course attempted will be accepted for admission. For specific information on course placement, applicants should refer to the KCTCS Assessment and Placement Policy, which is available on the website at kctcs.edu, under “Students”, then “Academic Regulations”. An official transcript of all previous college work must be submitted. The Council on Postsecondary Education’s (CPE’s) general education transfer policy provides the basis for an institution’s policy on the acceptance of transfer credit. The American Association of Collegiate Registrars and Admissions Officers’ “Transfer Credit Practices of Educational Institutions” shall serve as a reference for admission of transfer students to an institution and for the acceptance of transfer credit.

KCTCS colleges shall provide academic counseling concerning the transfer of credit to transferring students. KCTCS colleges shall accept a student’s college credit earned when a course is taken both for high school credit and for college credit. Credit earned through a dual credit or dual enrollment arrangement shall be treated the same as credit earned in any other college course.

Degree credit work is recognized credit hour for credit hour if taken on the semester system. Quarter hours are recognized as two-thirds (2/3) of a semester hour. Recognition of credit earned at a non-accredited college or university may be obtained by special subject examinations or may be validated upon the completion of 12 credit hours, excluding transitional courses, with a grade point average of at least 2.0.

Change of Program

When students enroll in a KCTCS college they select a program of study in which they wish to “major” or receive a credential. Students enrolled in any KCTCS college may request a program change through the student affairs office of their local college. These students are instructed to seek appropriate advisement and financial aid counseling.

KCTCS Assessment and Placement Policy

Students enrolling in a college credit course for the purpose of earning credit applicable toward an educational credential who meet college readiness benchmarks as identified by the Council on Postsecondary Education’s College Readiness indicators may enroll in college-level coursework. In addition to the college readiness benchmarks included in the tables found in sections below, the Council on Postsecondary Education recognizes a GED score of 165 or higher, a PARCC Level 4 or a Smarter Balanced Level 4 as indicators of college readiness with no developmental, co-requisite or supplemental coursework required in reading, writing, and quantitative reasoning (below college algebra). Students who do not demonstrate college or career readiness for their academic plan must remedy the identified skill deficiencies by enrollment in transitional education courses, entry-level courses with approved supplementary academic support, co-requisite courses, or approved college readiness intervention(s) within the first two terms of enrollment per Council on Postsecondary Education regulation 13 KAR 2:020. Enrollment shall continue consecutively until the designated academic skill levels are attained.

Students with 12 or more credit hours at the 100 level or above in general education courses with a 2.0 GPA are exempt from reading placement requirements and are considered college ready in reading. However, all students must meet individual course pre-requisites such as those for entry-level English and mathematics courses.

This assessment and placement policy specifically applies to all credential-seeking students, students who transition from non-credential seeking to credential seeking, and students who are undecided about their choice of program as of Fall 2016. The skills for which the Assessment and Placement Policy applies are mathematics, reading, and writing. An ACT® score of at least a 19 in mathematics, 20 in reading or 18 in writing allows the student to enroll in entry-level courses for those areas.

Students who do not intend to seek an educational credential are exempt from taking the assessment instrument; however, all students must meet individual course pre-requisites such as those for entry-level English and mathematics courses.

The KCTCS Placement and Assessment policy can be found at the main KCTCS web page kctcs.edu, under “Students”, then “Academic Regulations”.

*Certificate programs that require 18 credits or less are exempt from the Assessment and Placement Policy. However, applicable course prerequisites still apply.
<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS(^1) Algebra Domain</th>
<th>ASSET(^3)</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>Wonderlic</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 or higher</td>
<td>610 or higher</td>
<td>83-99</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>MAT 170, MAT 175 or any course listed below</td>
</tr>
<tr>
<td>22 or higher</td>
<td>510 or higher</td>
<td>50-99</td>
<td>El. Alg. 46-55, Int. Alg. 43-55</td>
<td>CA 14 or higher</td>
<td>NA</td>
<td>Quantitative 330 or higher</td>
<td>MAT 150 or any course listed below</td>
</tr>
<tr>
<td>19-21</td>
<td>460 or higher</td>
<td>36-49</td>
<td>El. Alg. 41-45, Int. Alg. 39-42</td>
<td>CA 7-13 or MP 22 or higher</td>
<td>NA</td>
<td>Quantitative 288 or higher</td>
<td>MAT 150 with supplemental instruction1; MAT 146, MAT 105, MAT 110, MAT 116, MAT 126 or any course listed below</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>31-35</td>
<td>El. Alg. 39-40, Int. Alg. 36-38</td>
<td>MP 18-21</td>
<td>NA</td>
<td>Quantitative 275 or higher</td>
<td>Intermediate Algebra or MAT 126 with supplemental instruction2 or any course listed below</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>25-30</td>
<td>El. Alg. 34-38, Int. Alg. 33-35</td>
<td>MP 15-21</td>
<td>NA</td>
<td>Quantitative 265 or higher</td>
<td>MAT 105, MAT 110, or MAT 116 with supplemental instruction2 or any course listed below</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>16-30</td>
<td>El. Alg. 27-38, Int. Alg. 26-35</td>
<td>MAT 055= MP 6-11, MAT 065= MP 12-17</td>
<td>NA</td>
<td>Quantitative 250 or higher</td>
<td>MAT 062, MAT 065, MAT 075 or any course listed below</td>
</tr>
<tr>
<td>COMPASS Pre-algebra Domain(^3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42-99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\)MAT 100 or other co-requisite support are options for supplementary academic support for MAT 150.

\(^2\)Enrollment permitted only with concurrent supplementary instruction. College designated supplemental instruction must offer supplementary academic support, such as extra class sessions, additional labs, tutoring, and increased monitoring of students, beyond that usually associated with an entry-level course.

\(^3\)COMPASS and ASSET will not be administered after November 30, 2016.
### Reading Course Placement

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>Wonderlic</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 20 or higher</td>
<td>470 Critical Reading</td>
<td>85-100</td>
<td>44-55</td>
<td>20 or higher</td>
<td>12.2-12.9</td>
<td>Verbal 325 or higher</td>
<td>No reading required</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>83-84</td>
<td>43</td>
<td></td>
<td>11.4-12.1</td>
<td>NA</td>
<td>Entry-level courses with concurrent enrollment in RDG 185, or supplemental instruction1, 2</td>
</tr>
<tr>
<td>15 or higher</td>
<td>70-82</td>
<td>38-42</td>
<td></td>
<td>9.0-11.3</td>
<td>NA</td>
<td>RDG 0302 or DRE 0302</td>
<td></td>
</tr>
<tr>
<td>12 or higher</td>
<td>49-69</td>
<td>32-37</td>
<td></td>
<td>5.5-8.9</td>
<td>NA</td>
<td>RDG 020</td>
<td></td>
</tr>
<tr>
<td>48 and below</td>
<td></td>
<td></td>
<td>No score available</td>
<td>5.4 and below</td>
<td></td>
<td>Refer to Adult Basic Education for Reading</td>
<td></td>
</tr>
</tbody>
</table>

1Supplemental instruction, such as extra class sessions, additional labs, tutoring, RDG 100, and increased monitoring of students beyond that usually associated with an entry-level course, to be developed and provided at the college.

2After the completion of this option students can move to entry level courses without additional supplemental instruction. NOTE: Students with 12 or more credit hours at the 100 level or above in general education courses with a 2.0 GPA have met college readiness benchmarks in reading are exempt from reading placement requirements.

3COMPASS and ASSET will not be administered after November 30, 2016.

### English Course Placement

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>Wonderlic</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 or above</td>
<td>Writing 430 or Critical Reading 450</td>
<td>74-100</td>
<td>43-55</td>
<td>6 or higher</td>
<td>12.8-12.9</td>
<td>Verbal 310 or higher</td>
<td>ENG 101</td>
</tr>
<tr>
<td>14 or higher</td>
<td>39-73</td>
<td>38-42</td>
<td></td>
<td>9.6-12.7</td>
<td>NA</td>
<td>ENC 091</td>
<td></td>
</tr>
<tr>
<td>12 or higher</td>
<td>26-38</td>
<td>33-37</td>
<td></td>
<td>8.1-9.5</td>
<td>NA</td>
<td>ENC 090 or ARI 010</td>
<td></td>
</tr>
<tr>
<td>25 and below</td>
<td></td>
<td>8.0 and below</td>
<td></td>
<td>204 and below</td>
<td></td>
<td>Refer to Adult Basic Education for English</td>
<td></td>
</tr>
</tbody>
</table>

Note: ENG 100 or other co-requisite support are options for supplementary academic support for ENG 101.

### Co-requisite Model

Some KCTCS colleges provide co-requisite model instruction options in addition to or in place of transitional coursework. In the co-requisite model of instruction, students are placed into a credit-bearing course while developmental needs are met through additional instruction concurrent to the course. The pilot college models should be documented with the KCTCS Vice Chancellor of Academics Office and data of student success shared within the colleges. Research findings will be used to determine future policy for assessment and placement for the system.
Tuition and Charges

Tuition and charges vary based on whether a student is a Kentucky resident, non-resident, or resident of a contiguous county of a contiguous state. Tuition and charges are on a per credit hour rate, including courses that are audited. For questions regarding residency status and guidelines, see Appendix A. All tuition and charges are payable in full prior to the beginning of classes for each session of the term unless prior arrangement has been made with the college business office. Consult your local college business office for college-specific required payment dates. Provisions for partial or deferred payment instructions are available in the “Payment Plan Options” section below.

Tuition and charges are assessed at the time of registration and based upon a per credit hour rate for all KCTCS colleges regardless of whether the courses are taken during the day, evening, and/or on weekends, and regardless of whether the courses are taken for credit or audit purposes. Tuition rates vary based upon Kentucky resident or non-Kentucky resident status. Qualifying students living in out of state counties that are contiguous to Kentucky may qualify for a reduced tuition rate. Fractional credit hour tuition and charges are assessed for fractional credit offerings (i.e., a student taking ¼ credit hour course would be assessed ¼ rate of student with same residency taking a 1 credit hour course). Tuition and charges are refundable unless per the “Refunds” section below. Charges for services are non-refundable unless specifically stated as refundable. Consult with your college business office for specifics. Tuition charges are published at www.kctcs.edu.

Mandatory Student Fee

A mandatory student fee of $8 per credit hour will be assessed in the 2016-2017 academic year. Questions regarding fees may be directed to your college’s business office.

Charges for Customized Course Offerings

Some courses, including courses created specifically upon request (credit or non-credit) may have additional charges. The additional charge, depending upon the requirements of developing and producing the customized course or program, will vary depending upon the length and content of the course or program offerings. All tuition and charges for customized courses are payable upon registration unless prior arrangements, including third party contracts, have been made with the offering college. Please contact your local college business office for specifics.

Charges for Services

Some charges for services may exist, including some individual program and/or special testing charges. General examples of these charges include, but are not limited to, the following: GED and ACT® testing, returned check charge and lost library book/video replacement charge. Charges will vary by service and are non-refundable. Contact your college business office for specifics.

Distance Education: There are no additional student charges associated with the verification of student identity.

Charges for Special Examination

KCTCS colleges offer students institutionally developed special examinations to demonstrate mastery of course content and receive credit toward program requirements. Special examinations are course specific and charges are separate from regular tuition charges. Special examination charges are payable in full at the time the examination is scheduled. Contact your local college business office for a listing of all charges.

Students who are enrolled in courses for which they elect to take a special examination in lieu of completing the course must officially withdraw from the course. The withdrawal date determines the status of the student’s assessment, refund, and grade for the enrollment period. All special examination credit is awarded using the test credit process. In such instances, a grade will not be awarded on the current term grade report. Please contact your college’s office of student affairs for application requirements.

Cancellation of Registration for Non-Payment of Charges

Students who have not paid their tuition and charges or arranged for a payment plan on or before the college’s required payment date are subject to having their registration cancelled for non-payment. Consult your local college business office for college-specific required payment dates.

Payment Plan Options

In addition to the payment options of cash, check, or credit card, students may choose to participate in a KCTCS flexible tuition and charges payment plan (an option for students not planning to pay in full or having made an arrangement to pay in full) prior to the college’s required payment date. To enroll in a payment plan, a student may login to his/her student self-service account (https://students.kctcs.edu) or contact his/her local college business office. Students have the option, depending on registration date, to enroll in one of three payment plan options listed below.

<table>
<thead>
<tr>
<th>Plans</th>
<th>Service Charge</th>
<th>Percent Down</th>
<th>Monthly Payments</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>*</td>
<td>None</td>
<td>4</td>
<td>Advance</td>
</tr>
<tr>
<td>Option 2</td>
<td>*</td>
<td>25%</td>
<td>3</td>
<td>Through</td>
</tr>
<tr>
<td>Option 3</td>
<td>*</td>
<td>50%</td>
<td>2</td>
<td>Through</td>
</tr>
</tbody>
</table>

* Contact your local college business office for a list of charges.

Total payment of the balance of tuition and charges must be made by the required date. Contact your local college business office for specifics.
Within 7th day

Within 7th day

Within 4th day

Within 3rd day

Within 2nd day

Within 1st day

Within 6th day

Within 5th day

Within 4th day

Within 3rd day

Within 2nd day

Within 1st day

Calendar days of the session, including all Saturdays and Sundays, but excluding KCTCS recognized holidays.

Timeframe for Tuition Refunds*

<table>
<thead>
<tr>
<th>Session</th>
<th>100%</th>
<th>50%</th>
<th>No Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-week</td>
<td>Within 7th day</td>
<td>8th - 29th days</td>
<td>After 29th day</td>
</tr>
<tr>
<td>8-week</td>
<td>Within 4th day</td>
<td>5th - 15th days</td>
<td>After 15th day</td>
</tr>
<tr>
<td>6-week</td>
<td>Within 3rd day</td>
<td>4th - 11th days</td>
<td>After 11th day</td>
</tr>
<tr>
<td>5-week</td>
<td>Within 2nd day</td>
<td>3rd – 9th days</td>
<td>After 9th day</td>
</tr>
<tr>
<td>4-week</td>
<td>Within 1st day</td>
<td>2nd - 7th days</td>
<td>After 7th day</td>
</tr>
</tbody>
</table>

Refunds

In order to receive a tuition refund, a student must officially withdraw within the refund period specified within this policy. Refunds for sessions different from those listed below are prorated according to the length of the session in proportion to the traditional 16-week session. A session is defined as an enrollment period within an academic term. An academic term (fall, spring, or summer) may have a number of sessions running concurrently -- 16-, 8-, or 4-week.

KCTCS has partnered with BankMobile Disbursements, a financial services company focused solely on higher education, to process student refund payments. For more information about BankMobile, visit this link: https://bankmobiledisbursements.com/refundchoices/.

KCTCS Online Learn by Term Courses*

Refunds for KCTCS Online Learn by Term course sessions are prorated according to the length of the session in proportion to the traditional 16-week session. Charges for services for KCTCS Online Learn by Term courses are non-refundable unless specifically stated as refundable.

In abbreviated table format, KCTCS’ refund policy for credit tuition for KCTCS Online Learn by Term courses is as follows:

<table>
<thead>
<tr>
<th>Session</th>
<th>100%</th>
<th>50%</th>
<th>No Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-week</td>
<td>Within 7th day</td>
<td>8th - 29th days</td>
<td>After 29th day</td>
</tr>
<tr>
<td>8-week</td>
<td>Within 4th day</td>
<td>5th - 15th days</td>
<td>After 15th day</td>
</tr>
<tr>
<td>6-week</td>
<td>Within 3rd day</td>
<td>4th - 11th days</td>
<td>After 11th day</td>
</tr>
<tr>
<td>5-week</td>
<td>Within 2nd day</td>
<td>3rd – 9th days</td>
<td>After 9th day</td>
</tr>
<tr>
<td>4-week</td>
<td>Within 1st day</td>
<td>2nd - 7th days</td>
<td>After 7th day</td>
</tr>
</tbody>
</table>

KCTCS Online Learn on Demand

KCTCS Online Learn on Demand courses tuition and charges are assessed at the time of registration and based upon a per credit hour rate approved for all KCTCS colleges regardless of whether the courses are taken during the day, evening, night and/or on weekends and regardless of whether the courses are taken for credit or audit purposes. Fractional credit hour tuition and charges are assessed for fractional credit offerings (e.g., a student taking ¼ credit hour course would be assessed ¼ rate of student with same residency taking a 1 credit hour course). Charges for services are non-refundable unless specifically stated as refundable.

In abbreviated table format, KCTCS’ refund policy for credit tuition for KCTCS Online Learn on Demand courses is as follows:

<table>
<thead>
<tr>
<th>Session</th>
<th>100%</th>
<th>50%</th>
<th>No Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 week</td>
<td>Within 7th day</td>
<td>8th - 29th days</td>
<td>After 29th day</td>
</tr>
<tr>
<td>15 week</td>
<td>Within 7th day</td>
<td>8th - 27th days</td>
<td>After 28th day</td>
</tr>
<tr>
<td>14 week</td>
<td>Within 6th day</td>
<td>7th - 25th days</td>
<td>After 25th day</td>
</tr>
<tr>
<td>13 week</td>
<td>Within 6th day</td>
<td>7th - 24th days</td>
<td>After 24th day</td>
</tr>
<tr>
<td>12 week</td>
<td>Within 5th day</td>
<td>6th - 22nd days</td>
<td>After 22nd day</td>
</tr>
<tr>
<td>11 week</td>
<td>Within 5th day</td>
<td>6th - 20th days</td>
<td>After 20th day</td>
</tr>
<tr>
<td>10 week</td>
<td>Within 4th day</td>
<td>5th - 18th days</td>
<td>After 18th day</td>
</tr>
<tr>
<td>9 week</td>
<td>Within 4th day</td>
<td>5th - 16th days</td>
<td>After 16th day</td>
</tr>
<tr>
<td>8 week</td>
<td>Within 4th day</td>
<td>5th - 15th days</td>
<td>After 15th day</td>
</tr>
<tr>
<td>7 week</td>
<td>Within 3rd day</td>
<td>4th - 13th days</td>
<td>After 13th day</td>
</tr>
<tr>
<td>6 week</td>
<td>Within 2nd day</td>
<td>3rd - 10th days</td>
<td>After 10th day</td>
</tr>
</tbody>
</table>

* Calendar days of the session, including all Saturdays and Sundays, but excluding KCTCS recognized holidays.
### Tuition and Charges

<table>
<thead>
<tr>
<th>Duration</th>
<th>Within First Day</th>
<th>Days Due</th>
<th>After Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 week</td>
<td>Within 2nd day</td>
<td>3rd-9th days</td>
<td>After 9th day</td>
</tr>
<tr>
<td>4 week</td>
<td>Within 1st day</td>
<td>4th-7th days</td>
<td>After 7th day</td>
</tr>
<tr>
<td>3 week</td>
<td>Within 1st day</td>
<td>2nd-5th days</td>
<td>After 5th day</td>
</tr>
<tr>
<td>2 week</td>
<td>Within 1st day</td>
<td>2nd-4th days</td>
<td>After 4th day</td>
</tr>
<tr>
<td>1 week</td>
<td>Within 1st day</td>
<td>2nd-2nd days</td>
<td>After 2nd day</td>
</tr>
</tbody>
</table>

*Calendar days of the session, including all Saturdays and Sundays, but excluding KCTCS recognized holidays.

KCTCS Colleges offer a variety of courses with different start and end dates. Please contact the business office at your local college for the guidelines for refunds.

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### Financial Delinquency

Any student who is delinquent in financial obligations to a college, or any division or organization of a college, shall not be allowed to register for future terms, receive transcripts, transfer credits to another institution, or graduate. Delinquent accounts are subject to KCTCS Business Procedure 7.4 Collection of Accounts Receivable and may be referred to an outside collection agency. Note: referred accounts are subject to collection charges in addition to the amount owed the college and are the responsibility of the delinquent party. The delinquency, if referred to a collection agency, is also subject to being listed with credit reporting agencies. Specific questions may be directed to your college’s business office.

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### Professional Liability Insurance

Students who enroll in any course requiring patient/client contact must show evidence they have professional liability insurance or purchase insurance through the college. This charge is non-refundable and is subject to change without notice. Please contact the College Business Office for details concerning the charge for Professional Liability Insurance.
Financial Aid

Overview
The colleges of the Kentucky Community and Technical College System (KCTCS) administer a variety of federal and state student financial aid programs, including local scholarships that are specific to an individual college or program. There is no charge to apply for student aid. Among the U.S. Department of Education Title IV programs offered are Pell Grants, Supplemental Educational Opportunity Grants (SEOG), Federal Work Study, and federally supported Federal Direct Loan Program. The colleges also participate in state supported aid programs. Detailed information regarding student financial aid can be found on KCTCS’ website.

Student Eligibility and Application
To receive student financial aid from any program in which KCTCS participates requires meeting established eligibility criteria. A listing of specific criteria can be found on KCTCS’ website. In general, you must have a demonstrated need as supported by the Free Application for Federal Student Aid (FAFSA) and a high school diploma or a General Education Development (GED) Certificate. You apply for student aid electronically by using the U.S. Department of Education’s Web site, www.fafsa.ed.gov. Applying for student financial aid is free. You will need the appropriate income tax forms for you and your spouse or you and your parents (1040, 1040-A, 1040EZ, or 1040-T efile). If you did not file a tax return you will need documentation of all sources of income, taxed or untaxed.

It is recommended that all records and materials used in completing the application be saved. A percentage of all applicants are randomly selected by the U.S. Department of Education for a process known as verification. If selected for verification, documentation must be provided in order to receive aid. Applying early insures consideration of your information for maximum funding and applicants are encouraged to apply as soon after October 1 as possible.

For questions concerning the U.S. Department of Education Title IV programs, you may contact the Federal Student Aid Information Center between 9 a.m. and 8 p.m. (Eastern Time) Monday through Friday: 1-800-4-FED-AID (1-800-433-3243) or 1-800-730-8913 TDD for hearing impaired; otherwise you can contact your local college financial aid office.

Dual Enrollment/Consortium Agreements
In some instances, a student may take classes at different KCTCS colleges and generally count their full enrollment for financial aid purposes. If students wish to count enrollment hours from other universities towards their total enrollment specific eligibility requirements apply. Please consult your local student financial aid office for criteria.

Federal Student Loans
KCTCS colleges participate in the Federal Direct Loan Program. You do not have to be eligible for other federal student aid to participate in this program. However, a valid FAFSA, completed entrance counseling, signed master promissory note, and minimum enrollment of six credit hours are required.

State Programs
The Kentucky Higher Education Assistance Authority (KHEAA) administers a number of state supported student financial aid programs. Among those offered are: College Access Program (CAP), Kentucky Educational Excellence Scholarship (KEES) and KHEAA Early Childhood Development Scholarship. For the complete listing of aid program offerings, please see KHEAA’s website: www.kheaa.com.

Statutory Scholarships (Waivers) for Kentucky Residents
KCTCS by virtue of state statute offers a number of tuition scholarships for Kentucky residents who meet specific eligibility criteria. Included in these are scholarships for: KCTCS Faculty and Staff; Kentucky residents age 65 or older; survivors of police officers and firefighters killed in duty; dependents of disabled police officers and firefighters; teachers; foster and adopted children; veterans; and children, step-children, and/or orphans of veterans killed or disabled in action.

A more detailed overview and eligibility requirements can be found on the KCTCS Website.

KCTCS and College Scholarships for Kentucky Residents
KCTCS also offers a number of tuition scholarships for Kentucky residents. These include: KCTCS Presidential Scholarship; John T. Smith Scholarship; Commonwealth Scholarship; Kentucky Colonels Better Life Scholarship; Charles E. Cranmer-Liquid Transport, Inc. Scholarship; and the Robert Stephen Weimann Tuition Scholarship for Non-Traditional Harlan County Residents. For details and application information, please contact your local college’s student financial aid office.

Additionally, each year, a number of individuals, organizations and companies make funding available for scholarships to various KCTCS colleges. The amount and criteria for these awards will vary. These scholarships are advertised when available, and eligible students may apply at that time. Information is available through your local college’s student financial aid office.

College Tuition Scholarships
Each local college offers tuition scholarships. Among these scholarships are: foundation scholarships to support enrollment management; need-based; program-specific; KCTCS Employee Spouse/Dependents; and Secure Educational Excellence in Kentucky Scholarship (SEEK). Please contact your local college for specifics.

Third Party Assistance Programs
There are a wide number of outside agencies who offer educational assistance and other services to students. Included among them are Kentucky Department of Veterans Affairs, Kentucky National Guard, Kentucky Office of Vocational Rehabilitation, and Kentucky Office for the Blind. A more detailed listing and brief description of the programs they offer and contacts for each can be found on the KCTCS Website. Additionally, local social service agencies offer a variety of programs to assist students including: Kentucky Works (JOBS), Temporary Assistance for Needy Families (TANF), Workforce Investment Act (WIA), and AmeriCorps.
Tax Credits
The U.S. Government grants a tax credit for eligible persons and/or their dependent attending college filing a federal tax return. The tax credits are referred to as the HOPE Scholarship and Lifetime Learning tax credit. Please contact your personal tax advisor regarding your eligibility.

Satisfactory Academic Progress (SAP)
Federal regulations mandate that a student receiving Federal Student Aid under Title IV programs must maintain satisfactory academic progress in his/her course of study regardless of whether or not student aid is awarded each semester. Satisfactory Academic Progress (SAP) is measured with the following standards: Qualitative (cumulative Grade Point Average of 2.0), Quantitative (Maximum Time Frame of 150 percent of the credits for completion of their program), and Quantitative Percentage (Earned hours/Attempted must equal at least 67 percent).

SAP Appeal Process
Students placed on student aid suspension and having unusual circumstances (illness, death in the family, accidents, etc.) and not making satisfactory academic progress have the right to appeal. However, during the appeal process persons are responsible for their own expenses, i.e., tuition, books supplies, etc.

Suspension Due to GPA
If a student is suspended from Student Aid because his/her cumulative grade point average does not meet the minimum 2.0 grade point average (GPA) and they choose to not file an appeal or their appeal is denied, he/she may take additional classes without Student Aid (unless the student is academically suspended) to raise his/her cumulative GPA to the 2.0 minimum and, if successful, may be reinstated. If a student is on Academic Probation or Academic Suspension, he/she will automatically be on Student Aid Probation or Student Aid Suspension. If a student is reinstated from Academic Suspension by appeal or any means, he/she must appeal his/her Student Aid status separately to be considered for Student Aid reinstatement eligibility.

Personal Financial Liability - Withdrawing or All “E”s
Students who withdraw from college before attending over 60 percent of the semester or who stop attending and therefore receive all “E”s may be financially liable to repay the student aid received. Persons desiring to withdraw from college must do so according to their college’s withdrawal policy which can be found on the school’s website. A copy of the worksheet and examples used for this calculation can be requested from each KCTCS College’s Office of Student Aid.
Services for Students

Student and Academic Services

KCTCS colleges are structured to provide support that students need to achieve a rewarding and successful academic experience. Classes and laboratories are housed in modern structures on campuses designed to accommodate growth and development of college programs. Many classes are offered at off-campus facilities. All KCTCS colleges have bookstore services where students and faculty may obtain textbooks, as well as a variety of reading and instructional materials. Other services, facilities and opportunities are described below.

Counseling

KCTCS colleges provide counseling and guidance services to students. Qualified counselors are available at most KCTCS colleges and are prepared to provide individual or group career and academic counseling and testing, and to assist students in setting educational and career goals.

Placement

Assistance with employment opportunities and job placement is available at each KCTCS college. See the placement coordinator at the college to obtain details.

Testing

Many of the KCTCS colleges have been designated as testing centers for administering scholastic examinations. Examinations given at the colleges include the American College Test® (ACT), a Career Planning Program (CPP), ASSET®, COMPASS®, WorkKeys® and correspondence study programs for other colleges and universities. Other examinations given at some of the KCTCS colleges include the GED (General Educational Development) Test, College-Level Examination Program® (CLEP) , and ACT PEP (Proficiency Examination Program). Contact the local college Student Services Office for more information about examinations and testing schedules.

Students with Disabilities

Each college has a coordinator to assist students with accommodations necessary due to their disabilities. Students with disabilities who desire academic accommodations must provide the coordinator with current documentation of their disability including evidence of the need for academic accommodations.

Information Technology

KCTCS colleges provide computer laboratories for student utilization in accessing the Internet and other software applications required for completion of class projects and research assignments.

Learning Laboratories

Learning laboratories help students improve their basic learning skills. Students experiencing difficulties in meeting entry-level requirements for areas such as reading, writing, and mathematics; students who want to improve their current academic performance; and students who want to review previously learned skills are among those who have found the services provided by learning laboratories to be helpful. Learning laboratories may use a variety of techniques and materials to assist students such as: tutoring services, group work, and individualized instruction.

Tests may be given to determine when students have reached a particular level of achievement. Materials include videos, individualized learning packets, programmed texts, sound pages, and computer-driven learning modules.

Libraries

KCTCS libraries actively support student learning, faculty teaching and research, and the intellectual and cultural lives of the communities they serve. They are an integral part of the teaching and learning process, promoting information literacy and providing information resources and services to support the educational and enrichment goals of Kentuckians. They provide information in a variety of formats with circulating print and audiovisual collections increasingly augmented by access to electronic full-text books and articles as well as other digital content. Thousands of titles in a variety of media and formats are added to the collections each year and hundreds of periodical subscriptions are maintained.

KCTCS libraries are staffed with talented, experienced professionals who provide instruction and guidance to students (both individually and in the classroom) in the effective use of traditional and electronic information resources. Working closely with other faculty members, KCTCS librarians are important catalysts for the enhancement of information literacy throughout the commonwealth. They are committed to helping students achieve competency in information literacy which becomes ever more crucial in the present age.

The KCTCS Library Catalog (opac.kctcs.edu) provides information on more than 520,000 titles owned or licensed by the libraries. Users can access it and licensed electronic resources from library web pages anytime they have an internet connection and at any time. Circulation and interlibrary loan services for the physical collections are available in 34 locations across the state. The KCTCS libraries participate in the Kentucky Virtual Library (KYVL), providing access to its broad array of online full-text and citation databases. The libraries share information resources extensively with each other as well as other libraries. They provide interlibrary loan services for books, articles and, in most cases, audio visual materials.

Student Housing

With the exception of Bluegrass Community and Technical College, KCTCS colleges are nonresidential colleges and no housing facilities are provided.

Ready to Work: Assistance for Low-Income Parents

Ready to Work (RTW) is a partnership between the Kentucky Community and Technical College System and the KY Cabinet for Health and Family Services, Dept. for Community Based Services. RTW is designed to assist low-income parents who are enrolling in and attending community and technical colleges in Kentucky. RTW supports their college success and completion while meeting their participation requirements of the KY Transitional Assistance Program (K-TAP) through:

• Counseling, advocacy and mentoring
• Referrals to community resources
• Job references and referrals
• Job readiness, life skills, financial coaching and academic success seminars
• Work study opportunities both on and off campus

Contact your college RTW Coordinator to determine if you are eligible for RTW services.
Ready to Work services have been expanded to include adult basic education students who are working toward their GEDs and college readiness. Work and Learn services are available to adult basic education students to help make their transition to college a smooth and successful one through:

- Counseling, advocacy & mentoring
- Referrals to community resources
- Job references & referrals
- Job readiness, life skills, financial coaching and academic success seminars
- Work study opportunities both on and off campus

KY Adult Education Services

If you didn’t finish high school, there are free classes - at adult education centers and online - to help you earn your GED (high school equivalency diploma).

If you are a high school graduate and need to improve your reading, math or communication skills, you may be eligible for free adult education services in your choice of any Kentucky county, as well as online.

KCTCS Colleges serve as the adult education service providers in many Kentucky counties.

Policies and Procedures

Right to Know

KCTCS colleges support the intent of the Student Right to Know/ Campus Security Act and are committed to providing a safe and secure environment for all students and employees. Several approaches may be utilized for crime prevention, such as:

- Burglar alarms
- Campus security officers
- Key control system
- Light sensors
- Local police patrol
- Motion detection system
- Building checks
- Video monitor and closed circuit cameras
- Visitor control processes.

Additionally, crime prevention efforts include the dissemination of information at student orientations, faculty in-services, and student organization meetings. Conduct that violates the intent of this Act and poses an unacceptable risk to members of the community of the KCTCS college shall result in appropriate disciplinary action as defined by policy.

Student Rights and Responsibilities

Each college within KCTCS has a varied and distinguished tradition of higher education. Each college’s students, faculty, and staff form an academic community that, while sharing certain characteristics with other types of associations, organizations, and societies, is rightly considered unique as a community, and should be governed, respected, and supported as a college community. The System has an obligation to maintain an atmosphere of academic freedom, to set and maintain standards of scholarship and conduct for students at each college, and to provide awareness for responsible student citizenship in the academic community.

The Student Rights and Responsibilities may be found in the KCTCS Code of Student Conduct, available on line at KCTCS.edu under “Current Students”.

Drug-Free Policy

KCTCS colleges are committed to providing a safe environment for students, faculty, and staff. The KCTCS colleges have adopted the following drug-free policy:

Being under the influence of alcohol or other drugs or the use, possession, distribution, manufacture, or sale of illegal or unauthorized drugs is prohibited and is punishable as a felony offense on campus or within 1000 yards of campus. Conduct that violates this definition, poses unacceptable risks, and disregards the health, safety and welfare of members of the KCTCS college community shall result in disciplinary action up to and including suspension or termination. The KCTCS Colleges are in compliance with the Drug-Free Workplace Act of 1988 and Drug-Free Schools and Communities Act amendment of 1989.

Sexual Harassment

KCTCS colleges are committed to providing a learning environment free from sexual harassment. All KCTCS employees and students shall avoid offensive or inappropriate behaviors. Sexual harassment - a form of sexual discrimination - includes unwelcome sexual advances, requests for sexual favors or other verbal or physical actions of a sexual nature when submission to such conduct is made explicitly or implicitly as a term or condition of the student’s status in a course, program or activity; or is used as a basis for academic or other decisions affecting such student; or when such conduct has the purpose or effect of substantially interfering with the student’s academic performance or creates an intimidating, hostile or offensive academic environment.

Grievance Procedures

Grievance procedures for students are found in the KCTCS Code of Student Conduct. Specific details may be obtained by visiting the KCTCS website at kctcs.edu under “Current Students”.

Student Organizations

Business and industry demand that KCTCS graduates are able to function in global and team environments. Most programs include a specific organized professional development component that is interfaced with student organizations. KCTCS colleges have numerous professional (e.g. Kentucky Association of Nursing – KANS) as well as career and technical student organizations (e.g., Skills USA; Health Occupations Student Organization - HOSA; Professional Business Leaders – PBL). Contact the college’s student affairs office for details and a complete list of student organizations. Following are some of the nationally recognized honor organizations and student councils available to KCTCS students.

National Vocational Technical Honor Society

The NVTHS recognizes students who have shown qualities of leadership, scholarship, skill, responsibility, and service. Each student must have the recommendation of his or her major instructor and meet the minimum criteria. Benefits of membership include: the student’s name will be included in the National Register of Vocational Technical Students of America, as well as being able to request up to three letters of recommendation written by the National NVTHS. For more information visit: www.nvths.org.

Phi Theta Kappa Honor Society

Phi Theta Kappa is the international honor society of two-year colleges. Each college has its own chapter of this organization. The purpose of Phi Theta Kappa is to recognize and encourage scholarship among two-year college students. To achieve this purpose, Phi Theta Kappa and its chap-
ters provide opportunities for the development of leadership and service, an intellectual climate for exchange of ideas and ideals, lively fellowship for student scholars, and stimulation of interest in continuing academic excellence. For more information, contact the Phi Theta Kappa advisor on each campus.

**Student Government**

The purpose of the student government is to provide a channel of communication whereby students can express themselves and make their views known to fellow students, faculty, and administration. The student government assists in sponsoring and regulating student activities and encourages the active participation of students in these activities. It is concerned with student involvement in all aspects of college life along with an appreciation of the privileges and responsibilities of being a college student. Members of the student government are elected representatives of the student body.

**Inter-KCTCS College Student Advisory Council**

The Student Advisory Council consists of the student body president from each college. Members of this organization serve in an advisory capacity to the Vice President responsible for Student Services. The Advisory Council also provides the opportunity for the student body presidents to exchange ideas on topics of mutual concern.

**Co-Curricular Activities**

Co-curricular activities for students vary among KCTCS colleges. Many opportunities exist for participation in student government, newspaper or literary magazine publication, debating, speech contests, drama, orchestra, band, choral groups, college-sponsored radio and television programs, art shows, and intramural sports. Several KCTCS colleges have joint faculty-student activities such as art exhibits, bowling leagues, drama productions, and presentation and discussion of selected foreign and American films.

**FERPA**

The Family Educational Rights and Privacy Act (FERPA) of 1974, as amended, is a federal law that protects the privacy and confidentiality of personally identifiable information contained within student education records. Colleges in the Kentucky Community and Technical College System comply with FERPA’s confidentiality protections and adhere to procedures dealing with student education records and directory information recommended by the American Association of Collegiate Registrars and Admissions Officers.

In its discretion, a college or KCTCS as appropriate may provide Directory Information in accordance with the provisions of FERPA to include:

- student name
- address
- email address
- telephone number
- date and place of birth
- major field of study
- dates of attendance
- degrees and awards received
- the most recent previous educational agency or institution attended by the student
- participation in officially recognized activities and sports

**Privacy and Release of Student Records**

Students may withhold Directory Information by notifying designated officials at the college in writing within ten (10) calendar days from the first scheduled day of class of the fall term. All written requests for non-disclosure will be honored by the college for one (1) academic year. Requests to withhold Directory Information must be filed annually thereafter. A request for “non-disclosure” is commonly called a “privacy request.”

**Student Records Maintenance**

This is to serve notice to all students of the KCTCS of the rights and restrictions regarding the maintenance, inspection, and release of student records contained in the Family Educational Rights and Privacy Act of 1974 (FERPA). The colleges of KCTCS offer a wide variety of services to students. Each college requires the maintenance of records concerning students enrolled in that particular college. The following is a list of the types of records that may be maintained by the College and/or the System Office for students:

- Academic records from schools previously attended
- Scores or results on various standardized tests and interest/attitude inventories
- Degrees awarded
- Current academic work completed
- Grades and other faculty evaluations
- Applications for admissions
- Applications and other data related to financial aid
- Applications for employment
- Class rosters
- Letters of recommendation
- Academic advisor notes
- Attendance data
- Biographical and identifying information (including name, social security number, sex, marital status, date of birth, residency and citizenship status, ethnic background, academic major, and military status)

The colleges are responsible for the maintenance of records in all categories.

In general, the records maintained by the college are available only to the student, to college personnel with legitimate educational interests, a person or company with whom the College has contracted as its agent to provide a service, to other institutions where the student is seeking financial aid, and to authorized representatives of the Comptroller General of the U.S., the Secretary of the U.S. Department of Education, or an administrative head of an education agency, in connection with an audit or evaluation of federally supported programs, and as provided by Section 164.283 of the Kentucky Revised Statutes. However, information may be released by the institution to appropriate persons in connection with an emergency if the knowledge of such information is necessary to protect the health or safety of a student or other persons. Records may be disclosed without consent to officials of another school in which a student seeks or intends to enroll.

Records may also be furnished in compliance with a judicial order or pursuant to a subpoena or with the consent of the student.
Students may inspect and review all records pertaining to them within forty-five (45) days of making requests for the same, except for 1) records created or maintained by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional acting or assisting in a professional capacity in connection with the treatment of the student (except that the student may have these records reviewed by a physician or appropriate professional designated by the student), 2) financial records of the parents, 3) confidential letters and recommendations put in the files prior to January 1, 1975, and 4) confidential recommendations relating to admission, application for employment, or honors, if the student waived his or her right to review such records. Where a particular record cannot be reviewed by a student without revealing confidential information relating to other students, the records custodian will inform the student, upon request, of the contents of the record pertaining to that student.

Appeal

A student who believes that any record maintained by the college, the college district, or the KCTCS pertaining directly to that student is inaccurate, misleading, or otherwise violates the right of privacy of the student as provided by Title IV of Pub.L. 90-247, as amended, and Pub.L. 93-380 as amended by Senate Joint Resolution 40 (1974), may request a hearing before a panel of three persons appointed by the President of the Kentucky Community and Technical College System. The panel may direct that appropriate action be taken to correct, explain, or expunge the record(s) challenged.

Requests for hearings should be sent to the Records Custodian, Kentucky Community and Technical College System, 300 N Main St, Versailles, KY, 40383 and will be addressed in a timely manner.
Academic Services

Introduction

KCTCS colleges offer AA, AS, and AFA degree programs which allow students to tailor and complete a general course of study to meet their interests and to fulfill the general education requirements of the first two years of bachelor degree programs; AAS occupational/technical degree programs to meet workforce needs and which may be transferable to a bachelor degree; occupational/technical diplomas and certificates that are also aligned with workforce needs; dual credit courses for high school students; and continuing education and community service opportunities.

All students are encouraged to utilize the advising and transfer services available to complete programs of study at KCTCS, and to plan for lifelong and continuing education to support academic and career goals. Advising and transfer services are available to help facilitate students’ progress and success.

Academic Advising

Academic advising is an essential element of the total educational experience and is available to every KCTCS student. Whether a student is seeking credentials exclusively from KCTCS or plans to use the education obtained at KCTCS to pursue a higher degree at another institution, academic advising is critical. Advisors strive to assist students in obtaining accurate information about academic requirements, long- and short-term educational planning, and resources available to assist students in advancing their academic and professional goals. Students with specific plans should contact an advisor at the local KCTCS college as soon as possible. Each KCTCS college provides transfer services and has at least one transfer contact to assist students. Each public and private postsecondary institution in Kentucky also has staff to provide information about planning and resources for transferring to a bachelor’s degree program. A list of these transfer agreements can be found at the KCTCS web site at: kctcs.edu Search words: Transfer Agreements.

Although academic advisors provide assistance, students are responsible for knowing institutional policies, procedures, requirements, and seeking out assistance when needed.

General Education Certifications

Students with defined professional/career goals requiring a bachelor’s degree may choose to begin their education at a community college then transfer to any four-year college or university. The General Education Transfer Policy is in place between all public colleges and universities in Kentucky, and the KCTCS policy regarding general education certification is outlined in the KCTCS Rules of the Senate, Section V 5.0.4.

Fully General Education Certified

Students who have successfully completed a general education program of 33 credit hours (a minimum of 15 hours completed with KCTCS) will be “fully general education certified”. Students may then transfer these hours altogether as a block. Students must fulfill any additional general education requirements of the receiving institution that have not been satisfied through the courses in the core or through additional KCTCS college courses.

Category Certification

Students who have successfully completed only some categories in the 33-credit hour component will be certified for those categories they complete. For example, a student who has completed the six-hour Arts & Humanities requirement of the AA/AS degree may be certified as having met the General Education Transfer Policy’s six-hour Arts & Humanities requirement. Students with “category” certification and/or additional coursework must fulfill the remaining general education requirements for the bachelor degree program.

If you have questions about the General Education Transfer Policy, please contact your college’s Transfer Contact. Completed general education certifications are automatically printed on the official transcript. If the requirements for certification have been completed, but the appropriate certification is not printed on the transcript, contact the college registrar’s office to request the appropriate certification be added to your transcript and request an additional transcript including the certification.

Transfer to Baccalaureate Institutions

All students are encouraged to complete a program of study at KCTCS and to consider transferring to a bachelor degree program to further their academic and career goals. The AA and AS degrees include a substantial amount of general education courses and are designed to accommodate transfer. KCTCS has developed a number of transfer agreements to assist students completing AA, AS, and AAS programs to transfer to bachelor degree programs. A list of these transfer agreements can be found at the KCTCS web site at: kctcs.edu Search words: Transfer Contacts.

Transfer Contacts and Services

There are a number of people available to assist students with information about planning and resources for transferring to a bachelor’s degree program. Students who are interested in transferring, or who just have questions about transferring, are encouraged to seek information as soon as possible. Each KCTCS college provides transfer services and has at least one transfer contact to assist students. Each public and private postsecondary institution in Kentucky also has staff to provide information to KCTCS students about transferring to that specific institution. Students are encouraged to talk with transfer contacts at their KCTCS college as well as transfer contacts at the college or university to which they want to transfer. A short list of public university transfer contacts is included below for quick reference. A complete list of transfer contacts at each KCTCS college and public and private colleges/universities in Kentucky is available at the KCTCS web site at: kctcs.edu Search words: Transfer Contacts.

KCTCS Transfer Contacts

Chancellor’s Office
300 North Main Street
Versailles, KY 40383
(859) 256-3389

Ashland Community and Technical College

Transfer Services
College Drive Campus - Room 224
Technology Drive Campus – Room 157
Transfer Contacts

Hope Perkey
Transfer Advisor
ACTC/Morehead State University
1400 College Drive
Ashland, KY 41101
606-326-2098
Hperkey0001@kctcs.edu

Sheila Marcum
Admissions Advisor
1400 College Dr.
Ashland, KY 41101
606-326-2418
sheila.marcum@kctcs.edu

Jim Jagielo
Admissions Advisor
1400 College Dr.
Ashland, KY 41101
(606) 326-2196
jjagielo@kctcs.edu

Janet Thompson
Admissions Advisor
1400 College Dr.
Ashland, KY 41101
606-326-2149
janet.thompson@kctcs.edu

Big Sandy Community and Technical College

Transfer Services
Prestonsburg Campus - Counseling Services, Student Center Building, Room 100
Pikeville Campus - Counseling Services, Room 105J
Mayo Campus – Counseling Services, Building C, Room 108

Transfer Contacts

Jeffrey T. Hicks
Counselor
Big Sandy Community and Technical College
One Bert T. Combs Drive
Prestonsburg, KY 41653
(606) 886-3863 (Ext. 64841)
(888) 641-4132
jeffery.hicks@kctcs.edu

Jimmy Wright
Dean of Student Affairs
Big Sandy Community and Technical College
One Bert T. Combs Drive
Prestonsburg, KY 41653
(606) 886-7347
(888) 641-4132
jimmy.wright@kctcs.edu

Leslie Bays
Counselor
Big Sandy Community & Technical College
One Bert T. Combs Drive
Prestonsburg, KY 41653
(606) 886-3863 (Ext. 67391)
(888) 641-4132
leslie.bays@kctcs.edu

Elizabeth Cole
Counselor
Big Sandy Community & Technical College
120 South Riverfill Drive
Pikeville, KY 41501
(606) 218-2060 (Ext. 81215)
(888) 641-4132
elizabeth.cole@kctcs.edu

Bluegrass Community and Technical College

Transfer Services
BCTC Transfer Center
Cooper Campus, Room 118 Oswald Building

Transfer Contacts

Aaron Akey
Interim Director, Transfer Center
Bluegrass Community and Technical College
118 Oswald Building, 470 Cooper Drive
Lexington, KY 40506
(859) 246-4620

Becky Critchfield
Transfer Advisor
118 Oswald Building
470 Cooper Drive
Lexington, KY 40506
(859) 246-4620
www.bluegrass.kctcs.edu/transfer_center

Elizabethtown Community and Technical College

Transfer Services
Counseling and Transfer Center
Main Campus, Room 106 CRPEC Building

Transfer Contacts

Mary Byerley-Shetty
Coordinator of Transfer Services
Elizabethtown Community and Technical College
610 College Street Road
Elizabethtown, KY 42701
(270) 706-8751

Sharon Spratt
Director of Counseling
Elizabethtown Community and Technical College
600 College St. Rd.
Elizabethtown, KY 42701
(270) 706-8478
sharon.spratt@kctcs.edu

Gateway Community and Technical College

Transfer Services
gw-transfer@kctcs.edu
Edgewood Campus, E105M Student Services Center Building

Student Support Services (TRIO)
gw-ssoffice@kctcs.edu
Urban Metro Campus, 214 Two Rivers Building

Transfer Contacts

Darrin McMillen
Transfer Advisor
790 Thomas More Parkway
Edgewood Campus
Phone: 859-815-7642
darrin.mcmillen@kctcs.edu
Colleen Kane  
Director, Student Support Services (TRIO)  
Urban Campus - Two Rivers Building  
Phone: 859-442-1614  
Fax: 859-442-1621  
collen.kane@kctcs.edu

**Hazard Community and Technical College**

**Transfer Services**
University Center of the Mountains (UCM)  
Hazard Campus, 152 Jolly Classroom Center

**Transfer Contacts:**

Dr. Deronda C. Mobelini  
Executive Director, UCM  
Hazard Community and Technical College  
One Community College Drive  
Hazard, KY 41701  
606-487-3182  
deronda.mobelini@kctcs.edu

Helen Brunty  
Career and Transfer Advisor, UCM  
Hazard Community and Technical College  
One Community College Drive  
Hazard, KY 41701  
606-487-3077  
helen.brunty@kctcs.edu

**Henderson Community College**

**Transfer Services**
Transfer Center  
101 Administration Building  
2660 S. Green Street

**Transfer Contact**

Lorie Maltby  
Transfer Coordinator  
Henderson Community College  
107 Administration Building  
2660 S. Green St.  
Henderson, KY 42420  
(270) 831-9828  
hctctransfer@kctcs.edu

**Hopkinsville Community College**

**Transfer Services**
Student Transition Center  
Main Campus, Technology Center Building

**Transfer Contact**

Kanya Allen  
Career and Transfer Services Coordinator  
Technology Center Building  
Career and Transfer Center, Room 204  
(270) 707-3827  
kanya.allen@kctcs.edu

**Jefferson Community and Technical College**

**Transfer Services**
Transfer Center  
Downtown Campus - JEC Building Suite 603  
JF-Transfer-Center@kctcs.edu  
www.jefferson.kctcs.edu/Academics/Transfer-Center

**Transfer Contacts**

Selena Sanchez  
Transfer Advisor  
Jefferson Community & Technical College  
Downtown Campus, JEC Building room 603  
(502) 213-2285  
Selena.sanchez@kctcs.edu

Kitty Zachery  
Transfer Advisor  
Jefferson Community & Technical College  
Downtown Campus, JEC Building room 603  
(502) 213-2443  
Kitty.zachery@kctcs.edu

Heather Yocum  
Jefferson Community and Technical College  
Carrolton Campus, Room  
(502) 213-5216  
Heather.yocum@kctcs.edu

**Madisonville Community College**

**Transfer Services**
Main Campus, John H Gray Building  
Enrollment Center

**Transfer Contact**

Lori Johnson  
Transfer Coordinator  
2000 College Drive  
Madisonville, KY 42431  
(270) 824-1827  
(866) 227-4812  
lori.johnson@kctcs.edu

**Maysville Community and Technical College**

**Transfer Services**
Transfer Center  
Main Campus, Administration Building, Room A251

**Transfer Contact**

Dana Calland  
Transfer Coordinator  
Maysville Community and Technical College  
1755 US HWY 68  
Maysville, KY 41056  
(606) 759-7141, ext. 66148  
dana.calland@kctcs.edu

**Owensboro Community and Technical College**

**Transfer Services**
TRAC Central (Transfer, Retention, Advising, and Careers)  
2nd Floor, Room 206; Learning Resource Center  
Main Campus, 4800 New Hartford Road  
Owensboro, KY  
Ph# 270-686-4683

**Transfer Contacts**

Katie Ballard  
Career Resource and Transfer Coordinator  
TRAC CENTRAL, LRC Rm 206  
4800 New Hartford Road  
Owensboro, KY 42303  
(270) 686-4529  
katie.ballard@kctcs.edu
Sandy Carden
Registrar
Owensboro Community and Technical College
4800 New Hartford Road
Owensboro, KY 42303
(270) 686-4536
(866) 755-6282
sandy.carden@kctcs.edu

Somerset Community College

Transfer Services
Transfer Center
Somerset Campus North, Stoner Building, Room 102
Laurel Campus North, Building 2, Room 228

Transfer Contacts

Somerset Campus
Betty Nichols
Administrative Assistant
Somerset Community College
Stoner Building, Room 102G
808 Monticello Street
Somerset, KY 42501
(606) 451-6650
betty.nichols@kctcs.edu

Laurel Campus
Betty Nichols
Administrative Assistant
Somerset Community College
Building 2, Room 228
London, KY 40741
(606) 878-4763
betty.nichols@kctcs.edu

Southcentral Kentucky Community and Technical College

Transfer Services
Student Success Center
Main Campus, Building A

Transfer Contacts

Shawn Stovall
Director of Student Success
Southcentral Kentucky Community and Technical College
1845 Loop Drive
Bowling Green, KY 42101
(270) 901-1188
shawn.stovall@kctcs.edu

Denna White
Director of Admissions
Southcentral Kentucky Community and Technical College
1845 Loop Drive
Bowling Green, KY 42101
(270) 901-1094
(800) 790-0990
denna.white@kctcs.edu

Southeast Kentucky Community and Technical College

Transfer Services
Transfer Assistance Center
Cumberland Campus, Chrisman Hall
Middlesboro Campus, Administration Building
Whitesburg Campus, Caudill Hall
Harlan Campus, Administration Building

Transfer Contacts
Georgenia Billings
Transfer Advisor
Southeast Kentucky Community and Technical College
1300 Chichester Ave
Middlesboro, Ky 40965
(606) 248-0853
gceorgenia.billings@kctcs.edu

Ron Brunty
College Counselor
Southeast Kentucky Community and Technical College
2 Long Avenue
Whitesburg, KY 41858
(606) 589-3320
(888) 274-7322
ron.brunty@kctcs.edu

Joe Sutton
Counselor
Southeast Kentucky Community and Technical College
1300 Chichester Ave.
Middlesboro, KY 40965
(606) 248-0768
joe.sutton@kctcs.edu

West Kentucky Community and Technical College

Transfer Services
Transfer Center
Main Campus, Anderson Technical Building
WKCTC-TransferCenter@kctcs.edu

Transfer Contact
Rachel Goatley
Coordinator of Advising and Transfer
West Kentucky Community and Technical College
106 Anderson Bldg., P.O. Box 7380
Paducah, KY 42002
(270) 534-3187
rachel.goatley@kctcs.edu

Public University Transfer Contacts

Eastern Kentucky University

Nicole McGrew
Transfer Admissions & Articulation Coordinator
859-246-6430
859-248-4340
nicole.mcgrew@eku.edu

Gail Creekmore
Transfer Center
(606) 451-6708
gail.creekmore@eku.edu
Credit for External Experiences

KCTCS colleges recognize that valid college-level learning experiences occur outside the traditional classroom setting. Colleges will assist students in recognizing appropriate external experiences and applying them toward a KCTCS credential. Colleges reserve the right to validate student competence through the mechanisms described in this section.

Advanced Placement Program

KRS 164.098 requires Kentucky Institutions to award credit for scores of 3 or higher on the Advanced Placement Tests. KCTCS colleges participate in the Advanced Placement Program of the College Entrance Examination Board. Interested students should have their official examination results sent to the Admissions Office of their local KCTCS College.

### Guidelines for Advanced Placement Credit

<table>
<thead>
<tr>
<th>AP Test</th>
<th>Score</th>
<th>Credit Awarded</th>
<th>Credit Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3</td>
<td>ART 105 or ART 106</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>BIO 112</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>4-5</td>
<td></td>
<td>ART 105 and ART 106</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3</td>
<td>MAT 175</td>
<td>5 credit hours</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3</td>
<td>MAT 175 and MAT 185</td>
<td>10 credit hours</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>CHE 170</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>4-5</td>
<td></td>
<td>CHE 170 &amp; CHE 180</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Chinese Language and Culture</td>
<td>4</td>
<td>RAE 150</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>RAE 150 and RAE 151</td>
<td>8 credit hours</td>
</tr>
<tr>
<td>Comparative Government and Politics</td>
<td>3</td>
<td>POL 210</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3</td>
<td>TRN 172</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>4-5</td>
<td></td>
<td>CIT 149</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>English Literature/Composition</td>
<td>3</td>
<td>ENG 161</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>English Language/Composition</td>
<td>3</td>
<td>ENG 101</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>3</td>
<td>EST 150</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>Course</td>
<td>Credits</td>
<td>Course Code(s)</td>
<td>Credit Hours</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------</td>
<td>-------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>European History</td>
<td>3</td>
<td>HIS 104 and HIS 105</td>
<td>6</td>
</tr>
<tr>
<td>French Language</td>
<td>3</td>
<td>FRE 201</td>
<td>3</td>
</tr>
<tr>
<td>German Language</td>
<td>3-5</td>
<td>FRE 201 and FRE 202</td>
<td>6</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3</td>
<td>GER 201 and GER 202</td>
<td>6</td>
</tr>
<tr>
<td>Italian Language and Culture</td>
<td>3</td>
<td>GEO 172</td>
<td>3</td>
</tr>
<tr>
<td>Japanese Language and Culture</td>
<td>3-5</td>
<td>TRN 106 and TRN 107</td>
<td>6</td>
</tr>
<tr>
<td>Latin: Vergil</td>
<td>3</td>
<td>JPN 201</td>
<td>3</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>3</td>
<td>ECO 201</td>
<td>3</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>3</td>
<td>ECO 202</td>
<td>3</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3</td>
<td>MUS 174</td>
<td>3</td>
</tr>
<tr>
<td>Physics 1</td>
<td>3</td>
<td>PHY 201*</td>
<td>4</td>
</tr>
<tr>
<td>Physics 2</td>
<td>3</td>
<td>PHY 203*</td>
<td>4</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
<td>PSY 110</td>
<td>3</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3</td>
<td>SPA 201</td>
<td>3</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3-5</td>
<td>TRN 110 (humanities)**</td>
<td>6</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>STA 220</td>
<td>3</td>
</tr>
<tr>
<td>Studio Art 2-D</td>
<td>3</td>
<td>ART 112</td>
<td>3</td>
</tr>
<tr>
<td>Studio Art 3-D</td>
<td>3</td>
<td>ART 113</td>
<td>3</td>
</tr>
<tr>
<td>Studio Art – Drawing</td>
<td>3</td>
<td>ART 110</td>
<td>3</td>
</tr>
<tr>
<td>US Government &amp; Politics</td>
<td>3</td>
<td>POL 101</td>
<td>3</td>
</tr>
<tr>
<td>US History</td>
<td>3</td>
<td>HIS 108 and HIS 109</td>
<td>6</td>
</tr>
<tr>
<td>World History</td>
<td>3</td>
<td>HIS 101</td>
<td>3</td>
</tr>
</tbody>
</table>

*Upon presentation of documentation of appropriate laboratory experience, credit will also be given for the laboratory portions of these courses.

**Upon presentation of documentation of appropriate laboratory experience, credit will also be given for the laboratories associated with these courses, PHY 241, 242 respectively.

***KCTCS does not offer courses that are an exact equivalent for the AP subject offered. Appropriate General Education credit is awarded in these cases.

American Council on Education

Students may receive credit for learning experiences in industry, business, and government as recommended by the American Council on Education (ACE). The recommendations for awarding credit appear in The National Guide to Educational Credit for Training Programs, published by the ACE.

Articulation Agreements

Articulation agreements provide a mechanism to accept and award credit for courses that will transfer toward a credential. Articulation agreements specify the terms and conditions for courses taken at other institutions that will apply to a KCTCS credential, and/or the terms and conditions for courses taken at KCTCS that will apply to credentials or degree programs at other institutions. In either case, the award of applicable credit to the credential is subject to the specific terms of each agreement and all requirements specified in the agreement must be met before credit can be awarded. For information about articulation agreements for KCTCS credentials, contact the college Student Records Office. For information about the availability of articulation agreements that apply to credentials or degree programs at other institutions, consult the college Student Records Office, the Transfer Contacts on pages 59 to 61, KCTCS Rules of the Senate Section VI Appendix D (kctcs.edu/Faculty_and_Staff/Academic_Affairs.aspx), or the Council on Postsecondary Education web site at www.cpe.ky.gov.

Certified Professional Secretary Examination

KCTCS colleges recognize the Certified Professional Secretary Examination of the Institute for Certifying Secretaries of the Professional Secretaries International. Students who successfully pass the Certified Professional Secretary Examination may receive a maximum of 21 credit hours in specified courses. Students must first complete 12 credit hours in residence at the college in which they wish to receive credit.
Guide to Educational Credit by Exam – CPS/CAP Recommendations

<table>
<thead>
<tr>
<th>Part I – Office Systems &amp; Technology</th>
<th>Suggested KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Concepts – 3 credits</td>
<td>OST 105 – Introduction to Information Systems (3)</td>
</tr>
<tr>
<td>Computer Information Systems – 3 credits</td>
<td>OST 240 – Software Integration (3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part II – Office Administration</th>
<th>Suggested KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Communications – 3 credits</td>
<td>OST 235 Business Communications (3)</td>
</tr>
<tr>
<td>Records Management 3 credits</td>
<td>OST 160 Records and Database Management (3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part III – Management</th>
<th>Suggested KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management &amp; Supervision – 4 credits</td>
<td>BAS 283 – Principles of Management (3)</td>
</tr>
<tr>
<td>Human Resource Management – 3 credits</td>
<td>BAS 274 – Human Resource Management (3)</td>
</tr>
<tr>
<td>Accounting – 1 credit</td>
<td>ACT 101 – Fundamentals of Accounting</td>
</tr>
</tbody>
</table>

Recommended credit total: 20

Total credit: 21

Child Development Associate

After successfully completing one three credit hour IEC course, a student enrolled in the IEC program who holds a current Child Development Associate (CDA) credential from the Council for Professional Recognition will be granted credit for IEC 101, IEC 102, and IEC 190. No other courses will be substituted for credit.

Commonwealth Child Care Credential

After successfully completing one three credit hour IEC course, a student enrolled in the IEC program who holds a current Commonwealth Child Care Credential (CCCC) from the State of Kentucky will be granted credit for IEC 101. No other courses will be substituted for credit.

Guidelines for CLEP General Examinations

<table>
<thead>
<tr>
<th>CLEP Subject Examination</th>
<th>Scaled Score to Earn Credit</th>
<th>Equivalent Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foreign Languages</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Level French Language</td>
<td>50-69</td>
<td>FRE 201</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>70 or above</td>
<td>FRE 201, 202</td>
<td>6</td>
</tr>
<tr>
<td>College Level German Language</td>
<td>50-69</td>
<td>GER 201</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>70 or above</td>
<td>GER 201, 202</td>
<td>6</td>
</tr>
<tr>
<td>College Level Spanish Language</td>
<td>50-69</td>
<td>SPA 201</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>70 or above</td>
<td>SPA 201, 202</td>
<td>6</td>
</tr>
<tr>
<td><strong>History and Social Sciences</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Government</td>
<td>50</td>
<td>POL 101</td>
<td>3</td>
</tr>
<tr>
<td>History of the United States I</td>
<td>50</td>
<td>HIS 108</td>
<td>3</td>
</tr>
<tr>
<td>History of the United States II</td>
<td>50</td>
<td>HIS 109</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Psychology</td>
<td>50</td>
<td>PSY 110</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>50</td>
<td>ECO 202</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>50</td>
<td>ECO 201</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>50</td>
<td>SOC 101</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization I: Ancient Near East to 1648</td>
<td>50</td>
<td>HIS 104</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization II: 1648 to the Present</td>
<td>50</td>
<td>HIS 105</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences and History</td>
<td>50</td>
<td>SOC 101</td>
<td>3</td>
</tr>
<tr>
<td>Human Growth and Developmental</td>
<td>50</td>
<td>AHS 100</td>
<td>2</td>
</tr>
<tr>
<td><strong>Science and Mathematics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculus</td>
<td>50</td>
<td>MAT 174 or MAT 175</td>
<td>4, 5</td>
</tr>
<tr>
<td>College Mathematics</td>
<td>50</td>
<td>MAT 146</td>
<td>3</td>
</tr>
</tbody>
</table>

Military School Age (MSA)

After successfully completing one three credit hour IEC course, a student enrolled in the IEC program that holds a current Military School Age (MSA) credential from the Council of Professional Recognition will be granted credit for the following three KCTCS courses: IEC 101, IEC 102 and IEC 250. No other courses will be substituted for credit.

College Level Examination Program (CLEP)

KCTCS colleges accept the General and Subject Examinations of the College Level Examination Program (CLEP). The Subject Examinations cover specific material which is common to courses in many colleges and universities. The level of proficiency to earn credit through CLEP is approximately equivalent to that required to earn a “C” in the course.
<table>
<thead>
<tr>
<th>Course</th>
<th>Score</th>
<th>Credit Awarded</th>
<th>Credit Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Algebra</td>
<td>50</td>
<td>MAT 150</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Precalculus</td>
<td>50</td>
<td>MAT 160</td>
<td>5 credit hours</td>
</tr>
<tr>
<td>Biology</td>
<td>50-59</td>
<td>BIO 112</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>60-64</td>
<td>BIO 120, BIO 112</td>
<td>6 credit hours</td>
</tr>
<tr>
<td></td>
<td>65-80</td>
<td>BIO 150, 152</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>50 or above</td>
<td>CHE 170, 180</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Natural Science</td>
<td>50</td>
<td>BIO 112</td>
<td>3 credit hours</td>
</tr>
<tr>
<td><strong>Business and Computer Applications</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principles of Accounting</td>
<td>50</td>
<td>ACC 201, 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>50</td>
<td>BAS 283</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>50</td>
<td>BAS 282</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Introduction to Business Law</td>
<td>50</td>
<td>BAS 267</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Information Systems and Computer Applications</td>
<td>50</td>
<td>TRN 146</td>
<td>3 credit hours</td>
</tr>
<tr>
<td><strong>English and Humanities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Literature</td>
<td>50</td>
<td>ENG 251</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>50</td>
<td>ENG 161</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>ENG 161</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Humanities</td>
<td>50</td>
<td>HUM 120</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>College Composition, College Composition Modular</td>
<td>50</td>
<td>ENG 101</td>
<td>3 credit hours</td>
</tr>
</tbody>
</table>

**Guidelines for Internatinal Baccalaureate (IB)**

<table>
<thead>
<tr>
<th>IB Course</th>
<th>Score</th>
<th>Credit Awarded</th>
<th>Credit Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology HL</td>
<td>4</td>
<td>BIO 152</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Biology SL</td>
<td>4</td>
<td>BIO 112</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Chemistry HL</td>
<td>4</td>
<td>CHE 170, CHE 180</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Chemistry SL</td>
<td>4</td>
<td>CHE 140</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>English A: Literature HL</td>
<td>4</td>
<td>ENG 101</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>French B HL</td>
<td>5</td>
<td>FRE 201, FRE 201</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>French B SL</td>
<td>5</td>
<td>FRE 101, FRE 102</td>
<td>8 credit hours</td>
</tr>
<tr>
<td>History HL</td>
<td>5</td>
<td>HIS 108, HIS 109</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Mathematics HL</td>
<td>5</td>
<td>MA 113</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>Mathematics SL</td>
<td>5</td>
<td>MAT 170</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Math Studies SL</td>
<td>5</td>
<td>Technical Math Elective</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Music SL/HL</td>
<td>4</td>
<td>MUS 100</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Physics SL/HL</td>
<td>5</td>
<td>PHY 201*</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>Psychology SL</td>
<td>4</td>
<td>PSY 110</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Spanish B HL</td>
<td>5</td>
<td>SPA 201, SPA 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Spanish B SL</td>
<td>5</td>
<td>SPA 101, SPA 102</td>
<td>8 credit hours</td>
</tr>
<tr>
<td>Theatre Arts HL/SL</td>
<td>4</td>
<td>THA 100</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Visual Art HL/SL</td>
<td>4</td>
<td>ART 100</td>
<td>3 credit hours</td>
</tr>
</tbody>
</table>

*Upon presentation of documentation of appropriate laboratory experience, credit will also be given for the laboratory associated with this course, PHY 202

**Industry Standard Certification Examinations**

**Military Service Experience**

A student may receive course credit in recognition of collegiate level credit completed through DSST (DANTES Subject Standardized Tests). To receive course credit for successful DSST exams, the student must have received a minimum standard score of 46. Credit will be given only upon receipt of an official DSST score report or transcript. A student may receive course credit where appropriate and equivalent courses are available for formal military training as recommended in A Guide to the Evaluation of Educational Experiences in the Armed Services (ACE Guide), published by the American Council on Education.

**National Board for Respiratory Care (NBRC) Examination**

A student who has passed the NBRC entry-level examination to the Respiratory Care Program will be awarded thirty-seven to thirty-nine (37 – 39) semester hours of credit after completion of at least 15 credit hours.
of the general education courses in the approved curriculum. The student must also provide evidence of successful completion of the American Heart Association Basic Life Support course for health care providers.

Special Exam: STEP or Challenge
Institutionally developed and administered exams provide an opportunity to demonstrate mastery of course content and receive credit toward program requirements. The student must be accepted for admission and enrolled in the college and apply for the exam through the Student Records Office. For more information, see “Tuition and Charges.”

Dual Credit
KCTCS dual credit is concurrent enrollment in high school and a KCTCS college with credit awarded by both. A high school student may earn both high school and college credit (dual credit) for the same course upon completion of course requirements. College credit will be awarded for courses taken for dual credit with a KCTCS college upon the student’s completion of the course requirements, and will become part of the student’s official college transcript. The KCTCS assessment and placement and grading policies apply to dual credit courses offered by KCTCS. Additional information about dual credit should is available at the local KCTCS college.

Non-Classroom Learning Experiences

Work Based Learning Experiences
Many of the diploma and degree programs offered through the colleges have Work Based Learning included in the curriculum. Work Based Learning refers to the programs that offer academic credit for degree-related work experience during a specific semester. The experiences and credit awarded vary according to the program’s requirements. These experiences must be planned and supervised by the college and the employer to ensure that the work experience contributes to the student’s education and career objective. The cornerstone of Work Based Learning is Cooperative Education. Other programs that are considered part of Work Based Learning are Internships, Practicums, and Experiential Learning. These courses afford the student a unique opportunity to integrate formal classroom training with supervised work experience.

Service Learning
Students have the opportunity to enroll in service learning programs which are designed to integrate community service with academic instruction as it focuses on critical and reflective thinking and civic responsibility. Service learning programs involve students in organized community service that addresses local needs, while developing academic skill, sense of civic responsibility, and commitment to the community.

Credit for Prior Learning
Prior Learning Assessment Portfolio students may contact any KCTCS college for information regarding applications for college credit via portfolio.

Modularized Credit Courses
Some KCTCS courses are available in a modularized credit format allowing students to register for courses that are components of the full (or “parent”) course. For example, BAS 212 may be taken as a three credit course or students may enroll in BAS 2121, BAS 2122, and BAS 2123 as separate courses which are the equivalent of BAS 212. The sum of the modular credit courses is equal to the full course. The student transcript will display the modularized credit course in the term the student earned the credit and once all components of the full course are earned, the full course will appear on the transcript. Modular CreditCourses are designated as a four digit number. The first three digits are those of the parent course. The last digit is the number of the modular credit segment/component, e.g., XXX 2011, XXX 2021, XXX 2031 or XXX 101A, XXX 101B, XXX 101C. When a student registers for a General Education modularized course, the student must complete all of the courses in that series to fulfill General Education category requirements, e.g., ECO 101 – 3 credits meets the Social & Behavioral Sciences category requirement. If ECO 101 has three modules, ECO 1011, 1012, and 1013, all three ECO 101 modules must be completed before the Social & Behavioral Sciences category requirement will be fulfilled. The student cannot take three modularized courses from three different courses to meet the general education category requirement, e.g., ANT 101, ECO 1011, and PSY 1101. Some modular courses require students to complete a Learning Contract upon registration which defines the student’s responsibilities.

Academic Policies and Rules

Policies Related to Enrollment

Student Load – Full-time Status
Full-time student academic status for the fall and spring term is 12 credit hours. Full-time student academic status for the Summer term is 6 credit hours.

Student Load – Maximum Student Load
The maximum load to be carried during any semester by a student (including residence, correspondence, and extension courses) is 19 credit hours or the number of hours specified in the curriculum for the particular semester, whichever is larger.

A student who has attained a grade-point average of 3.0 on a load of at least 15 credit hours for the preceding semester may be permitted by the college president (or designee) to carry a maximum of three additional credit hours, provided the total is not in excess of 22 credit hours for the semester.

Normally, the maximum course load (including residence, correspondence, and extension courses) shall be four credit hours for the four-week intersession, six hours for the five-week session, seven credit hours in a six-week session, or 10 credit hours in the eight-week summer session. A student who has attained a grade point average of 3.0 may be granted permission by the college president (or designee) to carry a maximum of five hours in a four-week session, seven hours in the five-week session, eight hours in a six-week session, 12 hours in an eight-week session, and fifteen hours in the twelve-week session.

A student on academic probation shall not take more than 15 credit hours in a semester, three credit hours in a four-week intersession, four hours in the five-week session, six credit hours in a six-week summer session, seven credit hours in an eight-week summer session and nine hours in the twelve-week session.

A student may be registered simultaneously at a KCTCS college and at another institution only with the approval of the college president (or designee), the credit hours obtained at the other institution being considered a part of the student’s maximum load. If the simultaneous registration has not been authorized, the transfer of credit from the other institution may be denied.
Grading System

The grading system uses a series of letters, to which are assigned grade-point values. The system is based neither on an absolute numerical system nor on a distribution curve, but on the following descriptions:

A: represents exceptionally high achievement. It is valued at four grade points for each credit hour in non-remedial and non-developmental courses.

B: represents high achievement. It is valued at three grade points for each credit hour in non-remedial and non-developmental courses.

C: represents satisfactory achievement. It is valued at two grade points for each credit hour in non-remedial and non-developmental courses.

D: represents the minimum achievement for credit. It is valued at one grade point for each credit hour in non-remedial and non-developmental courses.

E: represents unsatisfactory achievement and indicates failure in the course. It is valued at zero credit hours and zero grade points in non-remedial and non-developmental courses. Credit may be obtained by repeating the entire course.

F: represents unsatisfactory achievement in a course taken on a Pass-Fail basis. It has no value in computing the grade point average. Credit may only be obtained by repeating the entire course. This grade may be used for developmental courses.

AU (Audit): has no value in computing grade-point average. A student who has been admitted to the college may elect to enroll in a course(s) as an auditor, except in selective admissions programs. Auditing courses in a selective admissions program requires admission to the program and availability of space in the courses. With few exceptions, any change from audit to credit by a student fully admitted to a college must be accomplished by the last date to enter a class and any change from credit to audit must be made by mid-term of the semester or session in which the student is enrolled. An audited class may be taken for credit at a later date. Anyone who desires to audit a class must be admitted to the college and officially registered for the course.

I: means that part of the work of the course remains unfinished. It shall be given only when there is a reasonable possibility that a passing grade will result from completion of the work. The instructor and student will discuss the requirements for completion of course with the time limit for completion not to exceed a maximum of one year; failure to do so will result in an automatic change of grade from I to E. Each college shall maintain a record of incomplete grades recorded in courses of that college. This record, completed by the instructor at the time the I grade is reported, shall include: (1) the name and number of the student, (2) the course number and hours of credit, (3) semester or session and year of enrollment, (4) signature of the instructor, (5) a brief statement of the reason(s) for recording the incomplete grade, and (6) an adequate guide for removal of the incomplete grade. In the instructor’s absence, the division chairperson (or designee), shall forward to the college president (or designee) the appropriate letter grade to replace the incomplete grade.

W: represents a withdrawal from class without completing course requirements. A student may officially withdraw from any class up to and including the date of mid-term with a W grade. After the date of mid-term and through the last class of the semester or session, any student may officially request to withdraw from a course and receive a W which may be given at the discretion of the instructor. Each instructor shall state on the first or second class meeting the factors to be used in determining if a student will be allowed to withdraw during the discretionary period. An instructor shall not assign a student a W for a class unless the student has officially withdrawn from that class in a manner prescribed by the college. The grade of W may be assigned by the College Appeals Board in cases involving a violation of student academic rights or for academic offenses.

P: represents a satisfactory grade in a course taken on a Pass-Fail basis. The student who receives a P in a course shall be eligible to continue into the next sequential course(s). The grade of P may be assigned by the College Appeals Board in cases involving a violation of student academic rights. It has no value in computing the grade point average. This grade may be used for developmental courses.

MP: represents Making Progress and may be assigned only for developmental courses and means that the student has made significant progress but needs and deserves more time to achieve a passing grade. The student should re-enroll in the course in order to continue advancement to the level of competence set for the course. Grades may be earned following re-enrollment for developmental courses. The grade of MP has no value in computing grade point average.

Pass/Fail: may be selected for a maximum of two elective courses, subject to certain restrictions, by students with at least 30 credit hours and not on academic probation. Courses with these grades can count toward graduation but are not used in calculating grade-point standing. Courses taken on a pass-fail basis shall be limited to those considered as elective in the student’s program, and such other courses or types of courses as might be specifically approved. Prerequisites for such courses may be ignored at the student’s own hazard. The student is expected to participate fully in the course and take all examinations as though the student were enrolled on a regular basis. Students may not change from a pass-fail basis nor from a regular basis to a pass-fail basis after the last date for entering an organized class. Courses offered only on a pass-fail basis, remedial or developmental, or taken by special examination, shall not be included in the maximum number of elective courses which a student may take under these provisions.

Changing Grades: A grade once reported shall not be changed except when the instructor states in writing that an error has been made. The grade change must be submitted by the end of the following semester or session or, in exceptional cases, at the discretion of the president (or designee). However, each respective College Appeals Board may change a grade to P or W in the case of a violation of student academic rights or to a W in the case of an academic offense.

Grade-Point Average (GPA): The GPA on the KCTCS transcript is derived from all courses taken at KCTCS institutions. The grade-point average is the ratio of the total grade points earned to the total credit hours attempted excluding courses taken on a pass/fail basis and courses with grades of W or I. Total grade points are derived by multiplying the number of credit hours for the course by the number of grade points assigned to the grade earned: A = 4, B = 3, C = 2, D =1, E = 0.

Reporting Final Grades: The final grades for a course shall be filed with the office of the college president (or designee) by such date as determined by the academic calendar.

Academic Probation, Academic Suspension, and Reinstatement

Academic Probation: A student earning a cumulative grade point average below a 2.0 at the end of a term shall be placed on academic probation. A student shall be removed from academic probation by earning at least a 2.0 cumulative grade point average.

Academic Suspension (Dismissal): If a student is placed on academic probation for two consecutive terms (which is noted on the transcript as...
Reinstatement: A student who has been academically suspended may be reinstated by the president (or designee) after remaining out of the college for at least one 16-week semester and providing evidence of ability to perform at the level required. A student who has been academically suspended shall, upon reinstatement, be placed on academic probation and be subject to academic suspension if the student has failed to earn a current term GPA of 2.0 during the first term of reinstatement. Upon a second suspension, a student may be reinstated by the president (or designee) after remaining out of the college for at least two 16-week semesters and providing evidence of ability to perform at the level required.

Repeating a Course
A student may repeat a course for the purpose of improving a grade. The course must be repeated with the same grade option as the original enrollment in the course. The highest grade earned in a completed course shall constitute the official grade for the course and will be the only grade included within the cumulative GPA. Credit shall count only once for a KCTCS credential. If a student has been dropped from an occupation or technical program, course enrollment may be dependent upon readmission to the program. After a student has completed the same course twice, a division chair (or designee) in consultation with the instructor may refuse to approve a third registration in the same course, including those offered by correspondence, extension, and distance learning technology. Subject to the approval of the division chair (or designee), a student may receive approval for a substitution of comparable courses (e.g., MAT 150 may be taken as a repeat option for MA 109 and vice versa.). NOTE: A parent course cannot be repeated using modules. Students who have received passing grade in a parent course are not eligible to enroll in any module of that parent course.

Final Exams
Any student with more than two exams scheduled on one day as described in the college’s final exam schedule shall be entitled to have one of those exams rescheduled. The student must submit a petition for rescheduling in writing to the instructor no later than one week prior to the last class meeting.

Dean’s List
The Dean’s List recognizes the academic excellence of students who have earned an overall semester GPA of 3.5 or higher in courses numbered 100 or above. Honorary certificates of merit are generally awarded to students who have achieved this distinction.

Academic Bankruptcy (Readmission after Two or More Years)
A student who has been readmitted after having remained out of the KCTCS colleges for a period of two or more years, and who has completed at least 12 credit hours in college-level courses with a GPA of 2.0 or better after readmission, may choose to have none of the course work attempted in the colleges prior to the interruption included in the computation of the student’s GPA. The calculation of the GPA after the student declares bankruptcy begins with the semester of readmission. A student who has elected not to count past work in the computation of his or her GPA will continue to receive credit for those courses in which credit was earned with a grade of A, B, C, D, or P prior to readmission, without including those grades in the computation of the student’s GPA. A student who has completed a credential and re-enrolls may not apply the academic bankruptcy rule to courses taken for the credential already completed. A student may only use the academic bankruptcy option once.

Policies Related to Graduation

Graduation Requirements
For the Associate in Arts, Associate in Science, Associate in Fine Arts, and Associate in Applied Science degrees, regardless of the time the student has attended the college, at least 25 percent of the approved curriculum credits must be completed at the KCTCS college granting the degree. For a certificate or diploma, at least 25 percent of the approved curriculum credits must be completed at the college granting the credential. Students seeking Associate in Arts, Associate in Science, Associate in Fine Arts, or Associate in Applied Science degrees or Diplomas must have a minimum cumulative GPA of 2.0 in order to be eligible for graduation. To be eligible for a certificate, a student must satisfactorily complete an approved curriculum with a grade point average of at least 2.0 in the courses required for the certificate.

In order to be eligible to receive KCTCS credentials, students must satisfactorily complete the minimum number of credits required for that credential, including the general education requirements as specified in the KCTCS Board of Regents Policies 4.11 and 4.12 and program requirements, with a cumulative grade point average of at least 2.0 and complete the college’s application for graduation within the posted deadline for the term. In order to be eligible for:

- Associate in Arts, Associate in Science, Associate in Fine Arts, Associate in Applied Science, and Associate in Technology degrees, students must satisfactorily complete 60 credits, including the general education requirements as specified in the KCTCS Board of Regents Policies 4.11 and 4.12 and program requirements, with a cumulative grade point average of at least 2.0.
- Diplomas, student must satisfactorily complete a minimum of 36 hours including the general education requirements as specified by the KCTCS Board of Regents Policies 4.11 and 4.12 and program requirements, with a cumulative grade point average of at least 2.0.
- Certificates, students must satisfactorily complete an approved curriculum with a grade point average of at least 2.0 in the courses required for the certificate.
- Course substitutions may be made by the college president (or designee) on an individual basis with the advice of the appropriate division chairperson.

Specific information about the requirements for these programs is available below in the Academic Credentials Awarded section.

Graduation With Honors
Students who have completed at least 45 credit hours of work toward degree completion or 30 credit hours of work toward diploma completion in the KCTCS colleges shall be graduated “With High Distinction” if they attain a grade-point average of 3.60 or higher on all work attempted. Students who have completed at least 45 credit hours of work toward degree completion or 30 credit hours of work toward diploma completion in the KCTCS colleges shall be graduated “With Distinction” if they attain a GPA of 3.40-3.59 on all work attempted.

Multiple Associate Degrees
A student will be eligible for an additional degree when the student has completed the requirements of the second curriculum including a minimum of six credit hours relevant to the second degree and beyond the
requirements for the first degree. In no case will a degree be granted for the completion of a second option in a program. The completion of a second option, however, will be recorded on the transcript.

**Kentucky Community and Technical College Guarantee**

KCTCS colleges offer employers of graduates the following guarantee:

The KCTCS colleges guarantee employers that graduates have demonstrated competence in the skills listed on the approved task lists that represent industry validated specifications for each occupational program. Should a former student be considered by the employer to be performing below a satisfactory level on any skill on the approved task list, the colleges agree to provide specific retraining at no charge to the employee or employer. This guarantee extends for two years from the date of graduation.

The guarantee applies to all college graduates of occupational/technical programs who are employed in their field of training. The program enhances economic development efforts by guaranteeing Kentucky’s businesses and industries access to a skilled work force.

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### Academic Credentials Awarded

#### Associate in Arts (AA) and Associate in Science (AS)

<table>
<thead>
<tr>
<th>General Education Core Requirements</th>
<th>AA</th>
<th>AS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communications</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>(2401015000)</td>
<td>(2401016000)</td>
</tr>
<tr>
<td>Students who complete ENG 105 must take an additional 3 credit hours of General Education from any of the General Education categories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Arts and Humanities</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>One course must be selected from Humanities and one course from Heritage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>One science course must include a laboratory experience.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Two disciplines must be represented and different from those in the Arts and Humanities category.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative Reasoning OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Subtotal General Education Core**

<table>
<thead>
<tr>
<th></th>
<th>33 credit hours</th>
<th>33 credit hours</th>
</tr>
</thead>
</table>

**Associate in Arts Requirements**

12 credit hours

Select courses from headings in the Core Categories and/or Foreign Language (see pages 74 - 76). At least 6 credit hours must be selected from Arts and Humanities and/or Social and Behavioral Sciences and/or Foreign Language. Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring.

**Associate in Science Requirements**

12 credit hours

Select courses from headings in the Core Categories and/or Foreign Language (see pages 74 - 76). At least 6 credit hours must be selected from Quantitative Reasoning and/or Natural Sciences. Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring.

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### Electives

15 credit hours | 15 credit hours

Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring.

**Total Credit Hours**

60 credit hours | 60 credit hours

Degree requirements: 1) completion of minimum of 60 credit hours, 2) minimum cumulative 2.0 GPA, 3) minimum of 15 credit hours earned at the institution awarding the degree, 4) cultural studies course, and 5) demonstration of computer/digital literacy.

1. Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog at http://legacy.kctcs.edu/catalog/.

2. A course used to fulfill one category cannot be used to fulfill another category.

Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.

The General Education Transfer Policy is in place between all public colleges and universities in Kentucky, and the KCTCS policy regarding general education certification is outlined in the KCTCS Rules of the Senate, Section V 5.0.4. For more information see page 61.

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### Associate in Fine Arts (AFA)

An Associate in Fine Arts (AFA) degree is designed to transfer into a Baccalaureate of Fine Arts (BFA) program at a four-year institution. It consists of a general education requirement of 24 credit hours, a fine arts core of 18 credit hours, and 18 additional credit hours of concentration for a 60 credit hour minimum.

#### General Education Component:

<table>
<thead>
<tr>
<th></th>
<th>9 credit hours</th>
<th>3 credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written and Oral Communications</td>
<td></td>
<td>The course chosen to satisfy this requirement must be from a discipline other than the discipline in the Fine Arts Core and/or concentration.</td>
</tr>
<tr>
<td>Arts and Humanities</td>
<td></td>
<td>Natural Sciences</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>3 credit hours</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3 credit hours</td>
<td>Must include a laboratory experience for general education certification in the Natural Sciences category.</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>6 credit hours</td>
<td>Social and Behavioral Sciences</td>
</tr>
</tbody>
</table>

**Total General Education**

24 credit hours

**Fine Arts Core**

**Sub-Total**

18 credit hours

**Concentration**

**Sub-Total**

18 credit hours

**Total**

60 credit hours

Degree requirements: 1) completion of minimum of 60 credit hours, 2) minimum cumulative 2.0 GPA, 3) minimum of 15 credit hours earned at the institution awarding the degree, 4) cultural studies course, and 5) demonstration of computer/digital literacy.

1. Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog at http://legacy.kctcs.edu/catalog/.

2. A course used to fulfill one category cannot be used to fulfill another category.

Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.
General Education Component 15

A student must complete a minimum of 15 credit hours to fulfill the general education requirement. General education credits must meet the following distribution:

- Quantitative Reasoning 3 credit hours
- Natural Sciences 3 credit hours
- Social/Behavioral Sciences 3 credit hours
- Heritage/Humanities 3 credit hours
- Written Communication 3 credit hours

The above are minimum general education requirements; additional hours may be required in specific program curricula.

Technical and Support Component 45 - 53

General Education and Technical and Support Components must be distributed so that programs do not exceed 68 credit hours.

Total Credit Hours 60 - 68

AAS degree programs should incorporate multiple exit points, i.e. awarding certificates and diplomas, when possible.

Degree requirements: (1) minimum cumulative GPA of 2.0, (2) minimum of 25% of credit hours required for the degree must be earned at the institution awarding the degree, and (3) demonstration of digital literacy.

Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.

Diploma

A diploma program is designed to prepare students for technical employment within a one- to two-year period (36-60 credit hours). The total number of credit hours for the diploma must not exceed those required for a degree in the same program of study. A prescribed program of technical and general education courses is designed to prepare students for a specific job title. Diploma programs provide preparation for a specific occupation, credit toward an associate degree, and continued training opportunities for certificate program graduates. The diploma program contains general education courses emphasizing the skills identified in the SCANS (Secretary’s Commission on Achieving Necessary Skills) report that are critical to entry-level workforce success for persons prepared at the certificate level and associated with the field. If standardized external exams are not available in the field of study, certificates prepare students at skill levels expected of employees in an occupation found in the local economy.

1. Diplomas will address appropriate general education competencies.
2. Diploma curricula will be approved through the KCTCS Curriculum process.
3. Diplomas will be applicable toward at least one associate degree.

Graduation requirements include (1) Minimum cumulative GPA of 2.0, (2) demonstration of digital literacy, and (3) minimum of 25% of diploma requirements earned at the institution awarding the diploma.

Diploma curricula may contain additional courses identified in the SCANS (Secretary’s Commission on Achieving Necessary Skills) report that are critical to entry-level workforce success for persons prepared at the certificate level and associated with the diploma program.

The above are minimum general education requirements; additional hours may be required in specific program curricula.

Foundation Skills

Basic Skills: reading, writing, arithmetic and mathematics, listening, and speaking;

Thinking Skills: thinking creatively, making decisions, solving problems, knowing how to learn, and reasoning;

Personal Qualities: individual responsibility, self-esteem, sociability, self-management, and integrity/honesty.

Competencies

Resources: allocating time, money, materials, space, and staff;

Interpersonal Skills: working on teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds;

Information: acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information;

Systems: understanding social, organizational, and technological systems, monitoring and correcting performance, and designing or improving systems;
Technology: selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies.

Total Credit Hours  12 – 30

Graduation requirements: (1) minimum grade of C in each course required for the certificate and (2) minimum of 25% of certificate requirements earned at the institution awarding the degree.

Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.

Continuing Education Certificate

Students shall be awarded a continuing education certificate when they have successfully completed a continuing education course or set of courses.

Specialized Training

Adult Agriculture

Short-term adult upgrade classes in agriculture are offered at selected sites. These classes are designed to help young and adult farmers, as well as individuals employed in agribusiness, keep up with the constantly changing technology in the field of agriculture. The program provides on-the-farm and on-the-job supervision year-round with organized instructional classes conducted in the late fall and winter. Apprenticeship Apprenticeship program registration is the responsibility of the Kentucky State Apprenticeship Council in cooperation with the United States Department of Labor, Bureau of Apprenticeship Training. Application must be made through an employer, a labor union or a joint apprenticeship committee. Verify with the KCTCS college that it provides the minimum 144 hours per year of supplemental related instruction required of the apprenticeship program. Additional information may be obtained by calling the Kentucky Apprenticeship Council or the United States Department of Labor, Bureau of Apprenticeship Training.

Customized Industry Training

At the request of business and industry, Community and Economic Development Coordinators (CED) assist in the development and implementation of customized training for prospective and current employees. A specialized training agreement is developed that specifies the duties and responsibilities of the college and the company and may include the awarding of college credit. Contact the CED Coordinator at the local college.

Fire/Rescue Training

The Fire/Rescue Science Technology Program will prepare you for the challenges facing today’s emergency responders. In the program you will learn the skills of fire suppression and prevention, technical rescue, hazardous materials, emergency medical care, and leadership. This program is beneficial whether you are seeking a career in emergency services (Fire, Rescue, EMS or Emergency Management) or if you are already involved in providing fire, rescue or EMS services in your community.

Students may enter the program with or without experience in emergency services. The degree, certificate, and diploma programs that are offered can help you in obtaining employment in various emergency service fields, or if you are already a firefighter, help you get that promotion you have been waiting for. Classes are offered through State Fire/Rescue Training and may be offered in various formats such as: Web courses, hybrid courses, and traditional classroom offerings. For more information regarding this program, contact your local State Fire/Rescue Training Area Office.

Fire Rescue Training for Business, Industry and Municipal Government

State Fire Rescue Training provides a full range of Emergency Services Training for Business, Industry and Municipal Government entities. Contact the Fire Rescue office serving your area for more information about the training available to your facility.

Emergency Medical Technician Certificate

Students in the Emergency Medical Technician program are instructed in the proper care of sick and injured patients. Students are trained to treat victims suffering from traumatic and medical emergencies such as broken bones, puncture wounds, cardiac, and respiratory emergencies, vehicle accidents and more. This course meets the standards set forth by the US Department of Transportation National Standard Curriculum for EMT-Basic and the Kentucky Board of Emergency Medical Services. Students that successfully complete the course and its requirements will be awarded a certificate for Emergency Medical Technician, and will be prepared to challenge the certification examination process set forth by the Kentucky Board of Emergency Medical Services.

For specific program information see page 144.

State Fire Rescue Training Coordinators and Contact Information

West Kentucky Community & Technical College (Area 1)
Charles Lott, Coordinator
P. O. Box 8227
5200 Alben Barkley Drive
Paducah, KY 42002-8227
(800#) 888-306-7901
charles.lott@kctcs.edu
Counties: Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Livingston, Marshall, McCracken

Madisonville Community College (Area 2)
Mark Boaz, Coordinator
2001 Training Center Drive
Princeton, KY 42444
(800#) 888-306-7986
mark.boaz@kctcs.edu
Counties: Caldwell, Christian, Crittenden, Hopkins, Lyon, Todd, Trigg

Owensboro Community & Technical College (Area 3)
Jimmy VanCleve, Coordinator
P. O. Box 700
1300 HWY 136E
Calhoun, KY 42327
(800#) 888-306-8015
jimmy.vancleve@kctcs.edu
Counties: Daviess, Hancock, Henderson, McLean, Muhlenberg, Ohio, Union, Webster
Southcentral Kentucky Community and Technical College (Area 4)
John Weatherbee, Coordinator
825 Morgantown Road
Bowling Green, KY 42101
(800#) 888-234-5760
john.weatherbee@kctcs.edu
Counties: Allen, Barren, Butler, Edmonson, Hart, Logan, Metcalfe, Monroe, Simpson, Warren

Elizabethtown Community & Technical College (Area 5)
Rusty Todd, Coordinator
630 College Street Road
Elizabethtown, KY 42701
(800#) 888-234-7201
russelle.todd@kctcs.edu
Counties: Breckinridge, Grayson, Hardin, Larue, Marion, Meade, Nelson, Washington

Jefferson Community & Technical College (Area 6)
Rick Larkins, Coordinator
1361 Frankfort Road
Shelbyville, KY 40065
(800#) 888-306-8064
rick.larkins@kctcs.edu
Counties: Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer, Trimble

Gateway Community & Technical College (Area 7)
Bill Birkle, Coordinator
P. O. Box 76488
90 Campbell Drive
Highland Heights, KY 41076
(800#) 888-306-8101
bill.birkle@kctcs.edu
Counties: Boone, Campbell, Carroll, Gallatin, Grant, Kenton, Owen, Pendleton

Maysville Community & Technical College/Rowan Campus (Area 9)
Duane Suttles, Coordinator
99 Lake Park Drive
Morehead, KY 40351
(800#) 888-301-2946
duane.suttles@kctcs.edu
Counties: Bath, Bracken, Elliott, Fleming, Lewis, Mason, Menifee, Montgomery, Morgan, Robertson, Rowan

Ashland Community & Technical College (Area 10)
Mark Hammond, Coordinator
12307 Milland Trail Road
Ashland, KY 41102
(606) 585-0255
mark.hammond@kctcs.edu
Counties: Boyd, Carter, Greenup, Lawrence

Big Sandy Community & Technical College (Area 11)
Greg Gray, Coordinator
116 Main Street
Paintsville, KY 41240
(800#) 888-302-8935
greg.gray@kctcs.edu
Counties: Boyd, Johnson, Magoffin, Martin, Pike

Hazard Community & Technical College (Area 12)
Greg Reams, Coordinator
45 Gorman Hollow Road
Hazard, KY 41701
(800#) 888-234-6759
greg.reams@kctcs.edu
Counties: Breathitt, Knott, Lee, Leslie, Letcher, Owsley, Perry, Wolfe

Somerset Community College/Laurel Campus (Area 13)
Chantz Mcpeek, Coordinator
1791 Barbourville Street
London, KY 40741
(800#) 888-234-0100
chantz.mcpeek@kctcs.edu
Counties: Bell, Clay, Harlan, Jackson, Knox, Laurel, Rockcastle, Whitley

Somerset Community College (Area 14)
Josh Whitis, Coordinator
219 Industry Dr
Jamestown, KY 42629
(606) 219-2243
josh.whitis@kctcs.edu
Counties: Adair, Casey, Clinton, Cumberland, Green, McCreary, Pulaski, Russell, Taylor, Wayne

Bluegrass Community & Technical College/Lawrenceburg Campus (Area 15)
Brian Steele, Coordinator
KY Fire Commission
1355 Old Frankfort Pike
Lexington, KY 40504
(888) 234-3961
Counties: Anderson, Bourbon, Boyle, Clark, Estill, Fayette, Franklin, Garrard, Harrison, Jessamine, Lincoln, Madison, Mercer, Nicholas, Powell, Scott, Woodford

Other Training Options
In addition to full-time programs, KCTCS colleges provide short-term training courses to meet specific labor force needs and demands. Contact the local college for a list of short-term training programs and schedules.

General Education Requirements
Competencies will be met at the level appropriate to the credential.

A general education core curriculum will enable KCTCS colleges to graduate men and women who are intellectually flexible, articulate, reflective, creative, and prepared for continuous learning. For all students, this implies some understanding of the value of higher education and the world of work and career fields related to their own abilities, interests, and needs. The general education core competencies will enable students to develop their own values, pursue goals, and contribute to the political, moral, social, and cultural enrichment of society.

General Education Competencies:

Students should prepare for twenty-first century challenges by gaining:

A. Knowledge of human cultures and the physical and natural worlds through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.
B. Intellectual and practical skills, including
   • inquiry and analysis
   • critical and creative thinking
   • written and oral communication
   • quantitative literacy
   • information literacy
   • teamwork and problem solving
C. Personal and social responsibility, including
   • civic knowledge and engagement (local and global)
   • intercultural knowledge and competence
   • ethical reasoning and action
   • foundations and skills for lifelong learning
D. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.
**Written Communication**

**Diploma**
TEC 200 Technical Communications
OST 108 Editing Skills for Office Professionals
Any Writing course approved for the AAS, AA, or AS

**AAS, AA, AS, AFA**
ENG 101 Writing I ........................................... 3
ENG 102 Writing II .......................................... 3
ENG 105 Writing: An Accelerated Course .................. 3

**Oral Communications**

**Diploma, AAS, AA, AS, AFA**
COM 181 Basic Public Speaking .................................. 3
COM 205 Business and Professional Communication ................. 3
COM 252 Intro to Interpersonal Communications ...................... 3
COM 281 Communication in Small Group ........................... 3
COM 287 Persuasive Speaking ..................................... 3

**Quantitative Reasoning**

**Diploma**
OST 213 Business Calculations for the Office Professional ............ 3
Any mathematics course approved for the AAS, AA, AS, or AFA

**AAS**
MAT 105 Business Mathematics .................................... 3
MAT 110 Applied Mathematics .................................... 3
MAT 116 Technical Mathematics ................................... 3
MAT 126 Technical Algebra and Trigonometry ........................ 3
Any mathematics course listed below

**AA, AFA**
MAT 146 Contemporary College Mathematics .......................... 3
Any mathematics course listed below

**AS**
MAT 150 College Algebra ........................................ 3
MAT 154 Trigonometry ........................................... 3
MAT 155 Trigonometry ........................................... 3
MAT 159 Analytic Geometry and Trigonometry ........................ 4
MAT 160 Precalculus ............................................. 5
MAT 165 Finite Mathematics and its Applications ..................... 3
MAT 170 Brief Calculus with Applications ............................ 3
MAT 174 Calculus I ............................................. 4
MAT 175 Calculus I ............................................. 5
MAT 184 Calculus II ............................................ 4
MAT 185 Calculus II ............................................ 5
MAT 206 Mathematics for Elementary
and Middle School Teachers .................................... 3
MAT 261 Introduction to Number Theory ............................ 3
MAT 275 Calculus III ........................................... 4
MAT 285 Differential Equations .................................... 4
STA 210 Statistics: A Force in Human Judgment ..................... 3
STA 220 Statistics ............................................... 3

**Natural Sciences**

**Diploma**
PHX 150 Introductory Physics ...................................... 3
Any Science course approved for the AAS, AA, AS, or AFA

**AAS, AA, AS, AFA**
ANA 209 Principles of Human Anatomy .................................. 3
AST 101 Frontiers of Astronomy .................................... 3
AST 155/BIO 155 Astrobiology .................................. 3
AST 191 The Solar System ........................................ 3
AST 192 Stars, Galaxies, and the Universe .......................... 3
AST 195 Introductory Astronomy Laboratory* ......................... 3
BIO 112 Introduction to Biology .................................. 3
BIO 113 Introduction to Biology Lab* ................................ 3
BIO 114 Major Discoveries in Biology .............................. 3
BIO 115 Biology Laboratory I ..................................... 1
BIO 116 Biology II ............................................... 3
BIO 117 Biology Laboratory II* .................................... 1
BIO 118 Microbes and Society ..................................... 3
BIO 120 Human Ecology .......................................... 3
BIO 121 Introduction to Ecology Laboratory* ......................... 1
BIO 122 Introduction to Conservation Biology ......................... 3
BIO 124 Principles of Ecology .................................... 3
BIO 130 Aspects of Human Biology .................................. 3
BIO 135 Basic Anatomy and Physiology with Laboratory* .......... 4
BIO 137 Human Anatomy and Physiology I* ......................... 4
BIO 139 Human Anatomy and Physiology II* ......................... 4
BIO 140 Botany .................................................. 3
BIO 141 Botany with Laboratory* .................................. 4

**Social and Behavioral Sciences**

**Diploma**
EEM 100 Personal Financial Management ................................ 3
WPP 200 Workplace Principles .................................... 3
Any Social Interaction course approved for the AAS, AA, AS, or AFA

**AAS, AA, AS, AFA**
AGR 101 The Economics of Food and Agriculture .................... 3
ANT 101 Introduction to Anthropology ................................ 3
ANT 130/REL 130 Introduction to Comparative Religion ............. 3
ANT 160 Cultural Diversity in the Modern World ..................... 3
ANT 220 Introduction to Cultural Anthropology ...................... 3
ANT 221 Native People of North America ............................ 3
ANT 235 Food and Culture ......................................... 3
ANT 241 Origins of Old World Civilizations .......................... 3

**BIO 142 Zoology .................................................. 3
BIO 143 Zoology with Laboratory* .................................. 4
BIO 144 Insect Biology .......................................... 3
BIO 150 Principles of Biology I .................................. 3
BIO 151 Principles of Biology Laboratory I* ......................... 2
BIO 152 Principles of Biology II .................................. 3
BIO 153 Principles of Biology Laboratory II* ....................... 2
BIO 155/AST 155 Anatomy Laboratory* ............................. 3
BIO 209 Introductory Microbiology Lab* ................................ 3
BIO 220 The Genetic Perspective .................................. 3
BIO 225 Medical Microbiology .................................... 4
BIO 226 Principles of Microbiology .................................. 3
BIO 227 Principles of Microbiology with Laboratory* ................ 5
CHE 120 Chemistry in Society ................................... 3
CHE 125 The Joy of Chemistry Laboratory* .......................... 1
CHE 130 Introductory General and Biological Chemistry* .......... 4
CHE 140 Introductory General Chemistry ............................ 3
CHE 145 Introductory General Chemistry Laboratory* ............... 1
CHE 150 Introduction to Organic and Biological Chemistry* ........ 3
CHE 155 Intro to Organic and Biological Chemistry Laboratory* ... 1
CHE 170 General Chemistry I ..................................... 4
CHE 175 General Chemistry Laboratory I* .......................... 1
CHE 180 General Chemistry II .................................... 4
CHE 185 General Chemistry Laboratory II* .......................... 1
CHE 220 Analytical Chemistry* .................................... 5
CHE 270 Organic Chemistry I ..................................... 3
CHE 275 Organic Chemistry Laboratory I* ............................ 2
CHE 280 Organic Chemistry II ..................................... 3
CHE 285 Organic Chemistry Laboratory II* ............................ 2
EST 150 Introductory Ecology* ..................................... 3
EST 160 Hydrogeological Geology .................................... 3
GEO 130 Earth’s Physical Environment ................................ 3
GEO 251 Weather and Climate .................................... 3
GLY 101 Physical Geology ........................................ 3
GLY 102 Historical Geology ....................................... 3
GLY 110 Environmental Geology ..................................... 3
GLY 111 Laboratory for Physical Geology* ............................ 1
GLY 112 Laboratory for Historical Geology* .......................... 1
GLY 114 Environmental Geology Laboratory* .......................... 1
GLY 130 Dinosaurs and Disasters:
A Brief History of the Vertebrates .................................. 3
GLY 131 Dinosaur Laboratory* ..................................... 1
GLY 220 Principles of Physical Geology* ............................ 4
PHY 151 Introductory Physics I ..................................... 3
PHY 152 Introductory Physics II .................................... 3
PHY 160 Physics and Astronomy for Elementary Teachers* .......... 3
PHY 161 Introductory Physics Laboratory I* .......................... 1
PHY 162 Introductory Physics Laboratory II* .......................... 1
PHY 171 Applied Physics .......................................... 4
PHY 172 Physics for Health Science* .................................. 2
PHY 201 College Physics I ....................................... 4
PHY 202 College Physics Lab I* .................................... 1
PHY 203 College Physics II ....................................... 4
PHY 204 College Physics Lab II* .................................... 1
PHY 231 General University Physics I .................................. 4
PHY 232 General University Physics II .................................. 4
PHY 241 General University Physics I Laboratory* .................... 1
PHY 242 General University Physics II Laboratory* .................... 1
SCI 295 Scientific Investigations .................................... 3

*Course satisfies the General Education requirement for a laboratory experience.
HIS 109 History of the U.S. Since 1865
HIS 107 Western Culture: Science and Technology II
HIS 201 Principles of Macroeconomics
FAM 252 Introduction to Family Science
FAM 253 Human Sexuality: Development, Behavior, and Attitudes
FLK 280 Cultural Diversity in the US
GEN 140 Development of Leadership
GEN 225 Lifelong Learning Applications
GEO 152 Regional Geography of the World
GEO 160 Lands and Peoples of the Non-Western World
GEO 172 Human Geography
GEO 210 Pollution, Hazards and Environmental Management
GEO 222 Cities of the Worlds
GEO 240 Geography and Gender
HUM 135 Introduction to Native American Literature
HUM 202 Survey of Appalachian Studies I
HUM 203 Survey of Appalachian Studies II
HUM 204 Appalachian Seminar
HUM 211 Introduction to Native American Studies
POL 101 American Government
POL 210 Introduction to European Politics: East and West
POL 212 Culture and Politics in the Third World
POL 235 World Politics
POL 255 State Government
PSY 110 General Psychology
PSY 180 Human Relations
PSY 185 Human Potential
PSY 230 Psychosocial Aspects of Death and Dying
PSY 223 Developmental Psychology
PSY 297 Psychology of Aging
PSY 298 Essentials of Abnormal Psychology
RAE 120 Introduction to Chinese Culture
REL 101 Introduction to Religious Studies
REL 130 Introduction to Comparative Religion
SOC 101 Introduction to Sociology
SOC 151 Social Interaction
SOC 152 Modern Social Problems
SOC 220 The Community
SOC 235 Inequality in Society
SOC 249 Media, Society, and Culture
SOC 260 Population, Resources and Change
SPA 115 Hispanic Culture: (Country or Region)
SUS 101 Introduction to Sustainability
SUS 102 Sustainable Built Environment
SUS 201 Sustainable Societies
SUS 202 Sustainable Urban Systems
SWK 275 The Family
WGS 200 Introduction to Women’s and Gender Studies in the Social Sciences

1. A student may not receive credit for both ANT 130 and REL 130.
2. May be used to fulfill either Social and Behavioral Sciences or Arts & Humanities competency, but may not be used to fulfill both general education categories.

**Arts and Humanities**

**Heritage**
Diploma, AAS, AA, AS, AFA
FLK 276 Introduction to Folk Studies
HIS 101 World Civilization I
HIS 102 World Civilization II
HIS 104 A History of Europe through the Mid-17th Century
HIS 105 A History of Europe from the Mid-17th Century to the Present
HIS 106 Western Culture: Science and Technology I
HIS 107 Western Culture: Science and Technology II
HIS 108 History of the U.S. Through 1865
HIS 109 History of the U.S. Since 1865
HIS 120 The World at War 1939-45
HIS 202 History of British People to the Restoration
HIS 203 History of British People Since the Restoration
HIS 206 History of Colonial Latin America
HIS 207 History of Modern Latin America, 1810 to present
HIS 215 Historical Perspectives on Prisons and Police Work
HIS 220 Native American History: Pre-Contact to 1865
HIS 221 Native American History: 1865 to Present
HIS 240 History of Kentucky
HIS 247 History of Islam and Middle East Peoples, 500-1250 A.D.
HIS 248 History of Islam and Middle East Peoples, 1250 to Present
HIS 254 History of Sub-Saharan Africa
HIS 260 African American History to 1865
HIS 261 African American History 1865 - Present
HIS 265 History of Latin America
HIS 270 Ancient Europe
HIS 271 Medieval Europe
HIS 295 East Asia to 1800
HIS 296 History of Asia II

**Humanities**
Diploma, AAS, AA, AS, AFA
ANT 130/REL 130 Introduction to Comparative Religion
ART 100 Introduction to Art
ART 104 Introduction to African Art
ART 105 Ancient Through Medieval Art History
ART 106 Renaissance Through Modern Art History
ART 108 Introduction to World Art
ART 201 Ancient Art History
ART 202 Medieval Art History
ART 203 Renaissance Art History
ART 204 Modern Art History
ART 205 African American Art
ENG 135 Greek and Roman Mythology in Translation
ENG 161 Introduction to Literature
ENG 221 Survey of English Literature I
ENG 222 Survey of English Literature II
ENG 230 Introduction to Literature (Subtitle Required)
ENG 231 Literature and Genre (Subtitle)
ENG 232 Literature and Place (Subtitle Required)
ENG 233 Literature and Identities (Subtitle Required)
ENG 234 Introduction to Women’s Literature
ENG 251 Survey of American Literature I
ENG 252 Survey of American Literature II
ENG 261 Survey of Western Literature from the Greeks through the Renaissance
ENG 262 Survey of Western Literature from 1660 to the Present
ENG 263 Major Black Writers
ENG 270 The Old Testament as Literature
ENG 271 The New Testament as Literature
ENG 281/HUM 281 Introduction to Film
ENG 282/HUM 282 International Film Studies
FLK 276 Introduction to Folk Studies
GEN 125 Applied Meta-Thinking
HNR 101 Introduction to Contemporary Thought
HON 101 The Ancient World
HON 102 The Medieval and Renaissance World
HON 201 The Early and Modern World
HON 202 The Contemporary World
HRS 101 An Integrated Survey of Western Civilization I
HRS 102 An Integrated Survey of Western Civilization II
HRS 201 An Integrated Survey of Western Civilization III
HRS 202 An Integrated Survey of Western Civilization IV
HUM 120 Introduction to the Humanities
HUM 121 Peace Studies
HUM 135 Introduction to Native American Literature
HUM 140 Introduction to Latino Literature
HUM 150 Introduction to African Literature
HUM 160 Introduction to Holocaust Literature and Film
HUM 202 Survey of Appalachian Studies I
HUM 203 Survey of Appalachian Studies II
HUM 204 Appalachian Seminar

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that are traditionally excluded from or marginalized in mainstream Cultural Studies Courses

SPA 202 Intermediate Spanish II
SPA 201 Intermediate Spanish I
SPA 101 Elementary Spanish I (spoken approach)
SED 204 Sign Language IV
SED 203 Sign Language III
SED 202 Sign Language II
SPA 101 Elementary Spanish I (spoken approach)
SPA 102 Elementary Spanish II (spoken approach)
SPA 201 Intermediate Spanish I
SPA 202 Intermediate Spanish II

Other Degree and/or Credential Requirements

Cultural Studies Courses

Cultural Studies is defined as a course in which the major thrust is the study of one or more non-traditional and/or underrepresented cultures that are traditionally excluded from or marginalized in mainstream American curriculum. Cultural studies courses demonstrate a cultural emphasis in their course descriptions. For completion of the AA/AS degree, students must complete at least one cultural studies course.

Social and Behavioral Sciences

ANT 130/REL 130 Introduction to Comparative Religion*
ANT 160 Cultural Diversity in the Modern World
ANT 220 Introduction to Cultural Anthropology
ANT 221 Native People of North America
ANT 235 Food and Culture
ANT 241 Origins of Old World Civilizations
ANT 242 Origins of New World Civilizations
COM 254 Introduction to Intercultural Communication
ECO 150 Introduction to Global Economics
GEO 152 Regional Geography of the World
GEO 160 Lands and Peoples of the Non-Western World
HUM 135 Introduction to Native American Literature*
HUM 202 Survey of Appalachian Studies I*
HUM 203 Survey of Appalachian Studies II*
HUM 204 Appalachian Seminar*
POL 212 Culture and Politics in the Third World
POL 233 World Politics
PSY 230 Psychosocial Aspects of Death and Dying
RAE 120 Introduction to Chinese Culture
REL 101 Introduction to Religious Studies
SOC 235 Inequality in Society
SPA 115 Hispanic Culture: (Country or Region)
WGS 200 Introduction to Women’s and Gender Studies in the Social Sciences

Heritage

HIS 101 World Civilization I
HIS 102 World Civilization II
HIS 206 History of Colonial Latin America
HIS 207 History of Modern Latin America, 1810 to Present
HIS 220 Native American History: Pre-Contact to 1865
HIS 221 Native American History: 1865 to Present
HIS 247 History of Islam and Middle Eastern Peoples, 500-1250
HIS 248 History of Islam and Middle Eastern Peoples, 1250 to the Present
HIS 254 History of Sub-Saharan Africa
HIS 260 African American History to 1865
HIS 261 African American History 1865 - Present
HIS 265 History of Women in America
HIS 295 East Asia to 1800
HIS 296 History of Asia II

Humanities

ART 104 Introduction to African Art
ART 108 Introduction to World Art
ART 205 African American Art
ENG 135 Greek and Roman Mythology in Translation
ENG 233 Literature and Identity
ENG 234 Introduction to Women’s Literature
ENG 264 Major Black Writers
ENG 282/HUM 282 International Film Studies
HUM 121 Peace Studies
HUM 135 Introduction to Native American Literature*
HUM 140 Introduction to Latino Literature
HUM 150 Introduction to African Literature
HUM 160 Introduction to Holocaust Literature and Film
HUM 202 Survey of Appalachian Studies I*
HUM 203 Survey of Appalachian Studies II*
HUM 204 Appalachian Seminar*
HUM 230 Contemporary Japanese Literature and Culture in Translation
HUM 250 Appalachian Literature Survey
HUM 251 Contemporary Appalachian Literature
MU 101 Folk and Traditional Music of the Western Continents
MUS 104 Introduction to Jazz History
MUS 207 African American Music History
MUS 208 World Music
REL 101 Introduction to Religion
Course Transitions
A significant number of courses have changed prefixes and/or course numbers. This does not change the ability of the courses to fulfill general education course requirements as long as courses were eligible at the time of enrollment. Course changes for General Education courses are available in Appendices -E (through 2012-2013 academic year). Course changes for General Education courses that occurred in the 2013-2014 academic year are available in Appendix F.

Employment and Earnings Information
Information related to KCTCS graduates’ employment and earnings can be found in Postsecondary Feedback Reports at https://kcews.ky.gov/Reports/PSFeedback/PSFeedbackReports.aspx.

Admission to Programs
Academic requirements are specified for each program and are based on the level of difficulty and the technical nature of the curriculum. Admission to some programs is limited by college resources, facilities, accreditation requirements, etc. Contact the Student Services office or program coordinator at the college for more information.

KCTCS College Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>College Name</th>
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<tbody>
<tr>
<td>ACTC</td>
<td>Ashland Community and Technical College</td>
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<td>BLC</td>
<td>Bluegrass Community and Technical College</td>
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<td>BSC</td>
<td>Big Sandy Community and Technical College</td>
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<td>ECTC</td>
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<td>GTW</td>
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<td>HZC</td>
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<tr>
<td>WKCTC</td>
<td>West Kentucky Community and Technical College</td>
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</tbody>
</table>
KCTCS Online

Kentucky Community and Technical College System’s (KCTCS) sixteen colleges deliver quality online courses and programs through two ways to learn: Learn by Term and Learn on Demand http://www.kctcs.edu/KCTCS_Online.aspx.

KCTCS Online: Learn by Term is an alternative for many students who cannot attend classes on campus due to scheduling conflicts, childcare, work or other commitments. Learn by Term courses are offered as traditional semester long courses through all 16 of the Kentucky Community and Technical Colleges.

KCTCS Online: Learn on Demand is a revolution in online education, KCTCS Online: Learn on Demand offers students 100% online degrees, courses, and certificates as either full 12-16 week courses or flexible module-based courses.

Additional information about KCTCS Online courses and programs for both Learn on Demand and Learn by Term, including student information, may be viewed at the main KCTCS Online web page http://www.kctcs.edu/KCTCS_Online.aspx.

### Online Programs

#### KCTCS Online Learn by Term – Semester-based Online Programs

KCTCS colleges offer KCTCS Online Learn by Term traditional, semester-based online programs including the Associate in Arts (AA), Associate in Science (AS), and Associate in Applied Science (AAS) degrees, as well as diplomas and certificates. Students must designate a KCTCS college as their Home College. The KCTCS Home College must have program approval to award the credential. Online classes are delivered by different KCTCS colleges, and the Home College accepts all system-wide online courses delivered by other KCTCS colleges. Online courses offered system-wide and posted at KYVC may be applied toward the required 25 percent of the approved curriculum credits to be completed at the college granting the degree. The student’s Home College will provide student services including, but not limited to, admission, advising, registration, library services, billing, and financial aid. Enrolled students will receive automatic e-mails providing user id and password information through the student KCTCS e-mail account.

All of the courses required for online programs can be taken fully online; however, some courses may require exams that are proctored and approved by the instructor. Instructors communicate with students through the Blackboard Learning Management System (LMS) or through KCTCS e-mail.

Students may register for KCTCS Online Learn by Term online classes offered system-wide directly at any KCTCS college. Individuals may also complete a “course inquiry” submit form through www.kyvc.org. KYVC course inquiries are submitted directly to the KCTCS Home College identified by the student. The student’s chosen Home College processes the course inquiry either through formal admission procedures or class enrollment.

Students may register for KCTCS Online Learn on Demand by using the online application and registration process described in detail on the website http://learnondemand.kctcs.edu/.

### Current List of Semester-based Online Programs:

#### Associate in Arts

#### Associate in Science

#### Associate in Applied Science:

#### Business Administration Systems

#### Computer & Information Technologies

#### Criminal Justice

#### Energy Management

#### General Occupational/Technical Studies

#### Healthcare Facilities Leadership

Additional information about KCTCS Online courses and programs for both Learn on Demand and Learn by Term, including student information, may be viewed at the main KCTCS Online web page http://www.kctcs.edu/KCTCS_Online.aspx.
Health Information Technology
- (Practicum arranged on-site in student vicinity)-Health Information Technology Track
- Health Information Technology Track

Human Services
- Human Services Track

Information Management and Design
- Library Information Technology Track

Logistics & Operation Management
- Logistics & Operations Management Track

Marine Technology
- Marine Culinary Track
- Marine Engineering Track
- Marine Logistics Operations Track
- Wheelhouse Management Track

Medical Information Technology (Internship and practicum arranged on-site in student’s vicinity)
- Medical Administrative Track
- Medical Coding Track
- Electronic Medical Records Track
- Medical Transcription Track
- Medical Office Management Track

Mining Technology
- Engineering Operations Track
- Supervisor Track

Paralegal Technology
- Paralegal Technology Track

Quality Management Systems
- Quality Management Systems Track

Diplomas

Administrative Office Technology
- Administrative Assistant
- Office Assistant
- Financial Assistant
- Desktop Publishing Specialist

Business Administration Systems
- Accounting
- Informatics
- Office Systems
- Organizational Leadership
- Small Business Management

Computer Aided Drafting & Design
- Computer Aided Drafting & Design

Energy Management
- Energy Management

Medical Information Technology (Internship and practicum arranged on-site in student’s vicinity)
- Medical Administrative Assistant
- Medical Records Specialist

Visual Communication
- Digital Production Artist

Certificates

Administrative Office Technology
- Administrative
- Basic Business Presentation
- Data Entry Operator
- Desktop Publishing
- Financial Assistant Clerk
- Financial Assistant Trainee
- Financial Record Keeper
- Legal Receptionist
- Receptionist

Business Administration Systems
- Accounting
- Accounting Recordkeeping Specialist
- Advanced Business Administration
- Basic Business Administration
- Business Transfer
- Entrepreneurship
- Equine Business Management
- Finance
- Financial Perspectives
- General Business
- Hospitality Management
- Human Resource Management
- Industrial Supervisor
- Informatics Fundamentals
- Informatics Business Analyst
- Leadership
- Management
- Office Systems
- Operations Management
- Payroll Accounting Specialist
- Pre-Licensing Real Estate
- Quality Management
- Real Estate Pre-Brokerage Management
- Residential Real Estate
- Sales
- Small Business Management
- Supervisory Management
- Team Leadership
- Telecommunication Systems Management
- Turf Grass/Landscaping Management

Computer Aided Drafting and Design
- Computer Assisted Drafter
- Detailer
- Drafter Assistant

Computer and Information Technologies
- A+
- CISCO Networking Associate
- CISCO Networking Enhanced
- CIT Fundamentals
- Computer Support Technician
- Computer Technician Basic
- Computer Technician
- Information Security Specialist
- Microsoft Enterprise Administrator
- Microsoft Network Administrator
- Network Technologies Specialist
- Net+
- Programming
- Productivity Software Specialist
Distance Education
– Security+
– Social Media Specialist
– Web Programming
– Web Administration

Criminal Justice
– Computer Forensic
– Criminal Justice Core
– Corrections
– Law Enforcement
– Advanced Law Enforcement
– Security and Loss Prevention

Digital Game and Simulation Design
– Digital Game and Simulation Design

Energy Management
– Commercial Energy Analysis
– Fundamentals of Energy Production
– Sustainable Energy

Health Information Technology  
(Practicums are arranged onsite in student vicinity)
– Medical Records Coding Specialist 
– Release of Information Data Specialist

Historic Information Management
– Archival Management
– Museum Management
– Records Management

Human Services
– Direct Support Work

Interdisciplinary Early Childhood Education  
(Practicums are arranged onsite in student vicinity)
– Early Childhood Administrator
– Child Care Assistant
– Kentucky Child Care Provider
– School Age Child Care

Logistics & Operations Management
– Logistics Management

Marine Technology
– Marine Culinary
– Marine Industry
– Marine Technology Business
– Marine Technical Engineering

Medical Information Technology  
(Practicums are arranged onsite in student vicinity)
– Electronic Health Records Specialist
– Hospital Admissions Clerk
– Medical Coding
– Medical Receptionist
– Medical Transcriptionist

Mining Technology
Mining Technician I

Nursing  
(Practicums are arranged onsite in student vicinity)
– Medicaid Nurse Aide
– Advanced Nursing Assistant

Paralegal Technology
– Paralegal Technology

Quality Management Systems
– Quality Leader
– Quality Monitor
– Quality Specialist I
– Quality Support

Visual Communication  
(Practicums are arranged onsite in student vicinity)
– Animation
– Digital Imaging Assistant
– Digital Photography
– Digital Production Assistant
– Web Design

KCTCS Online Learn on Demand Programs

KCTCS Online Learn on Demand is higher education on your terms. It offers accredited, affordable college programs designed to fit the busy, working adult’s schedule. KCTCS Online Learn on Demand offers full courses with multiple start dates available throughout each semester. Courses with Learn on Demand may vary in length based on the start date that you select. Students can work with the Learn on Demand coaching network for specific details as information may vary. Students may register for KCTCS Online Learn on Demand by using the online application and registration process described in detail on the website http://learnondemand.kctcs.edu.

Degree

Associate in Arts

Associate in Science

Business Administration
– Human Resources Management Track
– Management Track

Computer and Information Technologies
– Applications: Computer Support Track
– Information Security Track
– Network Administration Track: Microsoft Windows Administration Sequence
– Network Administration Track: CISCO Networking Associate Sequence
– Programming Track: Information Systems Sequence
– Programming Track: Software Development Sequence

Logistics and Operations Management
– Logistics and Operations Management Track

Marine Technology
– Marine Culinary Management Track
– Marine Engineering Track
– Marine Logistics Operations Track
– Wheelhouse Management Track

Medical Information Technology  
(Internship and practicum arranged on-site in student vicinity)
– Electronic Medical Records Track
– Medical Administrative Track
– Medical Coding Track
– Medical Office Management Track
Diploma

Business Administration Systems
- Organizational Leadership
- Small Business Management

Medical Information Technology
- Medical Administrative Assistant
- Medical Records Specialist

Certificate

Business Administration
- Advanced Business Administration
- Basic Business Administration
- Entrepreneurship
- Financial Perspectives
- General Business
- Human Resource Management
- Leadership
- Management
- Payroll Accounting Specialist
- Sales
- Small Business Management
- Team Leadership

Computer and Information Technologies
- A+
- CISCO Networking Associate
- CISCO Networking Enhanced
- CIT Fundamentals
- Computer Support Technician
- Computer Tech Basic
- Computer Technician
- Information Security Specialist
- Microsoft Enterprise Administrator
- Microsoft Network Administrator
- Net+
- Programming
- Security+
- Web Programming

Logistics and Operations Management
- Logistics Management

Marine Technology
- Marine Culinary
- Marine Engineering
- Marine Industry
- Marine Technology Business

Medical Information Technology
- Electronic Health Records Specialist
- Hospital Admissions Specialist
- Medical Coding
- Medical Receptionist
- Medical Transcriptionist
- Medical Unit Coordinator

Nursing
- Medicaid Nurse Aide (NAA/MNA)

Learn on Demand College Readiness Program

College Readiness courses help students build reading, writing, and math skills for success in college level classes. Enrollment in these courses is based on a student’s College Readiness placement test results so students will only be enrolled in modules that they need.

Mathematics
- ENC 90 - Foundations of College Writing I
- ENC 91 - Foundations of College Writing II

Writing
- MAT 055 - Pre-Algebra
- MAT 065 - Basic Algebra
- MAT 085 - Intermediate Algebra

Reading
- RDG 020 - Improved College Reading
- RDG 030 - Reading for the College Classroom
- RDG 185 - College Reading
## Academic Curricula

### Associate in Applied Science (A.A.S.) Curricula

#### Gainful Employment Information

Some programs are considered by the U.S. Department of Education to be “Gainful Employment” programs. Important information about program length, cost, loan debt, graduates, and related occupations can be found on each college’s web page listed under Academics>Gainful Employment Dislosures or for the link for each college see Appendix F of this catalog. Information is valid as of this document’s publication date.

### Advanced Integrated Manufacturing

The Manufacturing Process Operations certificate introduces the basic principles and practices of manufacturing processes and procedures in today’s contemporary environment. Areas of study include plastic processing, material removal, quality control, and material selection. These skills are geared toward workers in front-line manufacturing positions that need skill upgrading or are first time workers in these environments. Upon completion of the certificate, students are ready to enter as front-line manufacturing employees in processing plastics.

### Certificate

**Manufacturing Process Operations – 4805013019**

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIM 100</td>
<td>3</td>
</tr>
<tr>
<td>AIM 110</td>
<td>3</td>
</tr>
<tr>
<td>AIM 120</td>
<td>3</td>
</tr>
<tr>
<td>AIM 1001</td>
<td>3</td>
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<tr>
<td>AIM 1003</td>
<td>1</td>
</tr>
<tr>
<td>AIM 200</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Advanced Integrated Technology

The Advanced Integrated Technology (AIT) program is a program of study that employs the principle of technology integration within sought after certifications: Multi-skilled Technician, Power Plant Operator, Engineering Controls, Mechatronic Operator and Industrial Refrigeration certifications. Within each certification area, a systems approach is employed that is in line with the expectations of current day employers. The AIT program offers both online coursework and flexible lab hours.

The AIT graduate will have acquired a high level of mechanical and electrical skill sets that can provide them with opportunities to work in today’s technologically advanced industrial settings (both in manufacturing and value-added 2nd tier support roles). These skill sets include robotics and PLC programming, drive configuration, advanced electric motor control, hydraulics/pneumatics, refrigeration and mechanical drive systems used in modern industry. The curriculum addresses mechanical and electrical theory and its application in today’s industrial environment. Critical thinking objectives are also incorporated that will expose the student to problem solving strategies and techniques for troubleshooting the latest generation of high tech equipment.

The Power Plant Technician certification is designed for entry level positions in the Power Plant Industry as a multi-skilled technician. These industries include, but are not limited to, positions in fossil fuel, hydro, nuclear, and alternative energy power plants. Also included are any industries where steam and electricity is generated. Imbedded within the curriculum is an Edison Electrical Institute Exam prep course to help graduates better prepare for the power plant entrance exam.

Students enrolled in the Advanced Integrated Technology Programs are required to achieve a minimum grade of “C” in technical courses.

### Associate in Applied Science

**Advanced Integrated Technology – 1504997019**

(Offered at MDC)

#### Required General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MAT 126</td>
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<tr>
<td>MAT 150</td>
<td>3</td>
</tr>
<tr>
<td>PHY 151</td>
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<td>PHY 161</td>
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<tr>
<td>PHY 171</td>
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<tr>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>ENG 105</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

#### Technical Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIT 100</td>
<td>4</td>
</tr>
<tr>
<td>AIT 110</td>
<td>3</td>
</tr>
<tr>
<td>AIT 120</td>
<td>3</td>
</tr>
<tr>
<td>AIT 130</td>
<td>4</td>
</tr>
<tr>
<td>AIT 140</td>
<td>4</td>
</tr>
<tr>
<td>AIT 150</td>
<td>4</td>
</tr>
<tr>
<td>AIT 210</td>
<td>4</td>
</tr>
<tr>
<td>AIT 270</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

Choose 16 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Advanced Integrated Technology Program Coordinator:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PLW 100</td>
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</tr>
<tr>
<td>PLW 125</td>
<td>4</td>
</tr>
<tr>
<td>ACR 100</td>
<td>3</td>
</tr>
<tr>
<td>ACR 101</td>
<td>2</td>
</tr>
<tr>
<td>ACR 102</td>
<td>3</td>
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<tr>
<td>ACR 103</td>
<td>2</td>
</tr>
<tr>
<td>ACR 130</td>
<td>3</td>
</tr>
<tr>
<td>ACR 131</td>
<td>2</td>
</tr>
<tr>
<td>IMT 100</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101</td>
<td>3</td>
</tr>
<tr>
<td>CMM 112</td>
<td>4</td>
</tr>
<tr>
<td>AIT 135</td>
<td>3</td>
</tr>
<tr>
<td>AIT 160</td>
<td>1</td>
</tr>
<tr>
<td>AIT 200</td>
<td>4</td>
</tr>
<tr>
<td>AIT 220</td>
<td>3</td>
</tr>
<tr>
<td>AIT 230</td>
<td>3</td>
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<td>AIT 235</td>
<td>3</td>
</tr>
<tr>
<td>ELT 250</td>
<td>4</td>
</tr>
<tr>
<td>AET 250</td>
<td>4</td>
</tr>
<tr>
<td>AET 270</td>
<td>4</td>
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</table>
### Approved Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AIT 290: Selected Topics in Advanced Integrated Technology</td>
<td>0.1-5.0</td>
</tr>
<tr>
<td>AIT 299: Advanced Electromechanical Concepts</td>
<td>4</td>
</tr>
<tr>
<td>AIT 190: Industrial Computer Programming Concepts</td>
<td>4</td>
</tr>
<tr>
<td>Approved Technical Courses</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

Demonstration of digital literacy is required for the AAS degree.

### Certificate

**Multi-Skilled Technician – 1504993110**

*(Offered at MDC, SMC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 100: Refrigeration Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ACR 101: Refrigeration Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>IMT 100: Welding for Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101: Welding for Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>CMM 112: Fundamentals of Machine Tool-B</td>
<td>4</td>
</tr>
<tr>
<td>AIT 200: Process Management and Quality Control</td>
<td>4</td>
</tr>
<tr>
<td>AIT 270: Introduction to Robotics and Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
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</tbody>
</table>

### Power Plant Operator - 1504993130

*(Offered at MDC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIT 140: Industrial Controls I</td>
<td>4</td>
</tr>
<tr>
<td>AIT 150: Industrial Controls II</td>
<td>4</td>
</tr>
<tr>
<td>AET 190: Industrial Computer Programming Concepts</td>
<td>4</td>
</tr>
<tr>
<td>ELT 250: Programmable Logic Controllers</td>
<td>4</td>
</tr>
<tr>
<td>AET 250: PLC Networking</td>
<td>4</td>
</tr>
<tr>
<td>AET 270: Advanced PLC Programming</td>
<td>4</td>
</tr>
<tr>
<td>AIT 270: Introduction to Robotics and Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
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</tbody>
</table>

### Mechatronics Operator - 1504993089

*(Offered at MDC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENM 101: Energy Industry Fundamentals</td>
<td>9</td>
</tr>
<tr>
<td>AIT 220: The Integrated Power Grid</td>
<td>3</td>
</tr>
<tr>
<td>AIT 230: Power Plant Capstone</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Industrial Refrigeration – 1504993140

*(Offered at MDC, MYC, SMC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 100: Refrigeration Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ACR 101: Refrigeration Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 102: HVAC Electricity</td>
<td>3</td>
</tr>
<tr>
<td>ACR 103: HVAC Electricity Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 130: Electrical Components</td>
<td>3</td>
</tr>
<tr>
<td>ACR 131: Electrical Components Lab</td>
<td>2</td>
</tr>
<tr>
<td>AIT 135: Industrial Refrigeration I</td>
<td>3</td>
</tr>
<tr>
<td>AIT 235: Industrial Refrigeration II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21</strong></td>
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</tbody>
</table>

### Multi-Skilled Maintenance Apprenticeship – 1504993150

*(Offered at MDC)*

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>AIT 1001: Basic Electrical Knowledge</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1003: Hydraulic/Pneumatic Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1101: Electrical Power Distribution</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1102: Fluid Power Distribution</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1201: Electrical Installation</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1202: Piping, Pneumatic, and Installation</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1203: Mechanical Installation</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1301: Principles of Instrumentation</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1302: Integrated Process Control</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1401: Basic Electrical Controls</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1402: Basic Pneumatic Controls</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1403: Basic Hydraulic Controls</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1501: Intermediate Electrical Controls</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1502: Intermediate Pneumatic Controls</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1503: Intermediate Hydraulic Controls</td>
<td>2</td>
</tr>
<tr>
<td>AIT 160: Workplace Safety</td>
<td>1</td>
</tr>
<tr>
<td>IMT 101: Predictive/Preventive Maintenance and Lubrication</td>
<td>1</td>
</tr>
<tr>
<td>IMT 100: Welding for Maintenance Lab</td>
<td>2</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

### Ammonia Refrigeration Fundamentals – 1504993160

*(Offered at MDC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AIT 135: Industrial Refrigeration I</td>
<td>3</td>
</tr>
<tr>
<td>AIT 235: Industrial Refrigeration II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

### Advanced Manufacturing

The Fundamentals of Advanced Manufacturing certificates provide students with the foundational skills for a career in advanced manufacturing as well as for continued progress in any of the six advanced manufacturing programs offered at Gateway. After completion of these short-term certificates, students may apply for work while continuing their pathway toward more stackable credentials including other certificates, diplomas, and degrees.

### Certificate

**Fundamentals of Advanced Manufacturing & Mechatronics - 1506133089**

*(Offered at GTW)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 102: Certified Production Technician</td>
<td>4-6</td>
</tr>
<tr>
<td>CIT 105: Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ELT 110: Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>MFG 125: Fundamentals of Mechatronics A</td>
<td>3</td>
</tr>
<tr>
<td>MFG 130: Fundamentals of Mechatronics B</td>
<td>3</td>
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<tr>
<td><strong>Total Credits</strong></td>
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**Fundamentals of Advanced Manufacturing & Machining - 1506133099**

*(Offered at GTW)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MFG 102: Certified Production Technician</td>
<td>4-6</td>
</tr>
<tr>
<td>CIT 105: Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CMM 112: Fundamentals of Machine Tools B</td>
<td>4</td>
</tr>
<tr>
<td>CMM 118: Metrology Control Charts</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16-18</strong></td>
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</table>

**Fundamentals of Advanced Manufacturing & Quality Control- 1506133110**

*(Offered at GTW)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MFG 102: Certified Production Technician</td>
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<tr>
<td>CIT 105: Introduction to Computers</td>
<td>3</td>
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<tr>
<td>BRX 110: Basic Blueprint Reading for Machinist</td>
<td>2</td>
</tr>
<tr>
<td>BRX 210: Mechanical Blueprint Reading</td>
<td>2</td>
</tr>
<tr>
<td>CMM 118: Metrology Control Charts</td>
<td>2</td>
</tr>
<tr>
<td>QMS 101: Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16-18</strong></td>
</tr>
</tbody>
</table>
African American Studies

The African American Studies Certificate Program provides an interdisciplinary approach to identify and engage the historical and contemporary issues confronting African and African Americans. Core courses include African American history, literature, and music. Additional courses in communication, humanities, and social sciences complete the program.

Certificate

African American Studies - 0501013029
(Offered at ELC, JFC)

ENG 101 Writing I ............................................ 3
HIS 260 African American History I .......................... 3
HIS 261 African American History II .......................... 3
MUS 207 African American Music History .................... 3
ENG 264 Major Black Writers .................................. 3
Elective* ................................................................ 3
Total Credits 18

* African American Studies Certificate Elective:
(Required: 3 credits)
COM 299 African American Communication ...................... 3
ANT 160 Cultural Diversity in the Modern World ............... 3
FLK 280 Cultural Diversity in the United States ................ 3
SOC 235 Inequality in Society ................................... 3
MIS 104 Introduction to Jazz ..................................... 3
HUM 150 Introduction to African Literature ..................... 3
REL 101 Introduction to Religious Studies ....................... 3
REL 130 Introduction to Comparative Religion ................. 3
ART 104 Introduction to African Art .............................. 3
TA 299 Special Topics in Theatre ................................ 3

Agricultural Studies

The Agricultural Studies program provides students with the skills, knowledge, and experience necessary to enter the field of agriculture and enhance current skill sets. This program includes a Food and Farm Management track, as well as a Production Agriculture Operations track.

The Food and Farm Management track emphasizes diversified agriculture and is designed for the new and beginning farmer. Upon graduation, the Food and Farm Management student will be trained in crop and livestock management, as well as business management, sales, and value-added production. Cumulatively, these skills will empower the graduate to begin a diversified farming operation.

The Production Agriculture Operations track provides training and knowledge in large scale, commercial production agriculture businesses. Students will gain skills in crop management, agriculture technology, pest management, and crop scouting. This skill set will enable graduates to obtain positions with large farm operations or other businesses related to the agriculture industry.

Associate in Applied Science

Agricultural Studies – 0103017029
(Offered at HPC, OWC)

General Education:
ENG 101 Writing I ............................................ 3
MAT 110 Applied Mathematics OR ............................. 3
MAT 136 Technical Algebra and Trigonometry OR ............ 3
MAT 150 College Algebra ........................................ 3
BIO 112 Introduction to Biology OR ........................... 3
BIO 150 Principles of Biology I .................................. 3

Total Credit Hours 65-68

Technical Core:
AGR 101 Economics of Food and Agriculture ................ 3

Total Credit Hours 15

Food and Farm Management Track – 010301703
(Offered at OWC)

AGR 260 Introduction to Sustainable Agriculture ............. 3
AGS 135 Herbsaceous Plant Production ........................ 3
AGS 155 Greenhouse Production ................................. 3
AGS 175 Agriculture Marketing and Sales ....................... 2
AGS 225 Fruit and Vegetable Production ....................... 3
AGS 275 Value Added Production ............................... 3
COE 199 Cooperative Education OR ............................ 2
COED 198 Practicum ............................................. 2
Track Subtotal 19

Total Credit Hours 65-68

Production Agriculture Operations Track – 010301704
(Offered at OWC)

AGR 130 Field Applications in Agriculture ..................... 2
AGR 200 Agricultural Internship III ............................. 2
AGS 145 Technology in Agriculture ............................ 3
AGS 235 Field Crop Production .................................. 3
AGS 245 Pest Management ...................................... 3
AGS 255 Crop Scouting .......................................... 3
AGS 285 Farm Financial Management ........................ 3

Track Subtotal 19

Total Credit Hours 65-68

Diploma

General Agricultural Studies -0103014029
(Offered at OWC)

ENG 101 Writing I ............................................ 3
MAT 110 Applied Mathematics OR ............................. 3
MAT 126 Technical Algebra and Trigonometry OR ............ 3
MAT 150 College Algebra ........................................ 3
BIO 112 Introduction to Biology OR ........................... 3
BIO 150 Principles of Biology I .................................. 3

Total Credit Hours 40-43

83
Agricultural Technology

The Agricultural Technology program prepares students for occupations in a wide variety of jobs in agriculture (both production and value-added) with a range of skills and knowledge.

The curriculum addresses concepts in theory, skills and techniques that are required by the agriculture industry. It will use hands-on strategies, which require an integrated practicum across a variety of settings. Graduates will seek job opportunities in the agriculture industry on commercial farms and businesses related to the agriculture industry.

Associate in Applied Science

Agriculture Technology - 0103017019

(Offered at HEC, HPC)

General Education:
ENG 101 Writing I ................................................................. 3
ENG 102 Writing II ................................................................. 3
COM 252 Introduction to Interpersonal Communication .......... 3
MAT 105 Mathematics for Business OR ................................ 3
MAT 110 Applied Mathematics OR ....................................... (3)
MAT 150 College Algebra ..................................................... (3)
AGR 101 The Economics of Food and Agriculture ................... 3
BIO 112 Introduction to Biology AND ................................... 3
BIO 113 Introduction to Biology Lab OR ................................ 1
BIO 114 Biology I* AND ....................................................... (3)
BIO 115 Biology I Lab* OR .................................................. (1)
BIO 116 Biology II* AND ..................................................... (3)
BIO 117 Biology II Lab* OR .................................................. (1)
BIO 143 Zoology with Laboratory* OR ................................. (4)
BIO 141 Botany with Laboratory* OR ................................... (4)
BIO 150 Principles of Biology I* AND .................................. (3)
BIO 151 Principles of Biology Lab I* ..................................... (2)
CHE 130 Introductory General and Biological Chemistry OR ...... 4
CHE 140 Introductory General Chemistry AND ....................... (3)
CHE 145 Introductory General Chemistry Lab I OR ................ (1)
CHE 170 General College Chemistry I AND ........................... (3)
CHE 175 General College Chemistry Lab I ............................. (1)

Subtotal 26–27

Technical Core:
AGR 125 Introduction to Fertilizers and Soils ......................... 3
AGR 140 Issues in Agriculture .............................................. 3
AGR 180 Agricultural Internship I ......................................... 2
AGR 230 Career Development in Agriculture ....................... 3
AGR 240 Introduction to Animal Science OR ....................... 3
ASC 106 Agriculture Animal Science .................................. (3)
AGR 250 Introduction to Plants/Crop Production .....................
Digital Literacy .................................................................. 3
Electives ........................................................................... 5
Subtotal 25

Agricultural Technology Track – 010301701

(Offered at HEC, HPC)

AGR 130 Field Applications in Agriculture .......................... 2
AGR 150 Agriculture Power ................................................. 3
AGR 170 Introduction to Equipment, Machines, and Engines .... 3
AGR 190 Agricultural Internship II ....................................... 2
AGR 200 Agricultural Internship III ...................................... 2
AGR 220 Computers in the Agricultural Environment ............. 3

Subtotal 15

Total Credits Agricultural Technology Track 66–67

Sustainable Agriculture Track – 010301702

(Offered at HEC)

AGR 160 Horticulture Science .................................................. 3
AGR 260 Introduction to Sustainable Agriculture .................... 3
AGR 270 Introduction to Organic Agriculture ......................... 3
BAS 160 Introduction to Business .......................................... 3
BAS 282 Principles of Marketing ........................................... 3

Subtotal 15

Total Credits Sustainable Agriculture Track 66–67

Diploma

Agricultural Technology - 0103014019

(Offered at HEC, HPC)

General Education Courses:
Written Communication, Oral Communications, or Ethics/Heritage ................................. 3
The Economics of Food and Agriculture ................................................. 3

Subtotal 6

Total Credits 35

Certificates

Agricultural Technician - 0103013009

(Offered at HEC, HPC)

AGR 140 Issues in Agriculture .............................................. 3
AGR 150 Agricultural Power ................................................. 3
AGR 230 Career Development in Agriculture ....................... 3
AGS 340 Introduction to Fertilizers and Soils ......................... 3
AGR 190 Agricultural Internship II ....................................... 2
AGR 170 Introduction to Equipment, Machines, and Engines .... 3
AGR 220 Computers in the Agricultural Environment ............. 3

Field Applications in Agriculture ............................................. 2

Total Credits 24

Sustainable Agriculture – 0103013029

(Offered at HEC, HZC)

AGR 140 Issues in Agriculture .............................................. 3
AGR 260 Introduction to Sustainable Agriculture .................... 3
BAS 160 Introduction to Business .......................................... 3
AGR 250 Introduction to Plants and Crop Production ................. 3
AGR 125 Introduction to Fertilizers and Soils ......................... 3
AGR 190 Agricultural Internship II ....................................... 2
AGR 170 Introduction to Equipment, Machines, and Engines .... 3
AGR 220 Computers in the Agricultural Environment ............. 3

Principles of Marketing ....................................................... 3

Total Credits 27
## Air Conditioning Technology

Installing and servicing heating, air conditioning and refrigeration equipment is the focus of this program. Academic courses, theory courses, and laboratory experiences are designed to promote success in the air conditioning field.

The Boiler Maintenance Certificate is designed to complement our Associate in Applied Science (AAS) and Diploma for students enrolled in Air Conditioning Technology Program. Installing, initial start-up and servicing commercial boilers used in HVAC applications is the focus of this certificate. Theory courses and laboratory experiences are designed to promote success in boiler service and facility management.

The Chiller Certificate is designed to complement our Associate in Applied Science and Diploma for students enrolled in Air Conditioning Technology Program. Installing and servicing Chillers used in commercial and industrial applications is the focus of this certificate. Theory courses and laboratory experiences are designed to promote success in the service and maintenance of Chillers.

Students enrolled in the Air Conditioning Technology program must achieve a minimum grade of "C" in each technical course.

### Associate in Applied Science

#### Air Conditioning Technology - 4702017019

*(Offered at BLC, BSC, ELC, SKY)*

**General Education:**
- Quantitative Reasoning .................................................. 3 credit hours
- Natural Sciences .......................................................... 3 credit hours
- Social/Behavioral Sciences .............................................. 3 credit hours
- Heritage/Humanities ...................................................... 3 credit hours
- Written Communication .................................................. 3 credit hours
- Oral Communications ...................................................... 3 credit hours

**Technical Courses:**
- Digital Literacy .......................................................... 0-3
- ACR 100 Refrigeration Fundamentals .................................. 3
- ACR 101 Refrigeration Fundamentals Lab .......................... 2
- ACR 102 HVAC Electricity AND ......................................... 3
- ACR 103 HVAC Electricity Lab OR ...................................... 2
- Comparable Electrical Course* ........................................ (4-5)
- ACR 130 Electrical Components ........................................ 3
- ACR 131 Electrical Components Lab ................................... 2
- ACR 170 Heat Load/Duct Design ........................................ 3
- ACR 250 Cooling and Dehumidification .............................. 3
- ACR 251 Cooling and Dehumidification Lab ........................ 2
- ACR 260 Heating and Humidification .................................. 3
- ACR 262 Heating and Humidification Lab ............................ 2
- ACR 270 Heat Pump Application AND ................................. 3
- ACR 271 Heat Pump Application Lab ................................... 2
- Electives** ........................................................................ 10-12

**Subtotal Credits** .................................................. 42-48

**Total Credits** .......................................................... 60-66

Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

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## Diploma

### Heating, Ventilation, and Air Conditioning Mechanic - 4702014009

*(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)*

**General Education:**
- Area 1 = Written Communication, Oral Communications, OR Humanities/Heritage .................................................. 3
- Area 2 = Social/Behavioral Sciences, Natural Sciences OR Quantitative Reasoning .................................................. 3

**Subtotal Credits** .................................................. 6

**Diploma**
- Digital Literacy course OR demonstrated competency .................. 0-3
- ACR 100 Refrigeration Fundamentals .................................. 3
- ACR 101 Refrigeration Fundamentals Lab .......................... 2
- ACR 102 HVAC Electricity AND ......................................... 3
- ACR 103 HVAC Electricity Lab OR ...................................... 2
- Comparable Electrical Course* ........................................ (4-5)
- ACR 130 Electrical Components ........................................ 3
- ACR 131 Electrical Components Lab ................................... 2
- ACR 170 Heat Load/Duct Design ........................................ 3
- ACR 209 Manual N Commercial Load Calculations & Design ...... (4)
- ACR 250 Cooling and Dehumidification ................................ 3
- ACR 251 Cooling and Dehumidification Lab ........................ 2
- ACR 260 Heating and Humidification .................................. 3
- ACR 262 Heating and Humidification Lab ............................ 2
- ACR 270 Heat Pump Application AND ................................. 3
- ACR 271 Heat Pump Application Lab ................................... 2
- ACR 297 Commercial HVAC Systems .................................. (5)
- ACR 291 Special Problems OR ........................................... 1
- ACR 298 Practicum ........................................................... 2

**Subtotal Credits** .................................................. 41-50

**Total Credits** .......................................................... 47-56

*Comparable Electrical Courses:
- EET 154 Electrical Construction I AND .................................. (2)
- EET 155 Electrical Construction I Lab OR ............................ (2)
- EET 112 Basic Electrical Theory AND ...................................(3)
- EET 113 Basic Electrical Theory Lab OR ............................. (1)
- ELT 110 Circuits I OR .......................................................... (5)
- IMT 110 Industrial Maintenance Electrical Principles AND ...... (3)
- IMT 111 Industrial Maintenance Electrical Principles Lab ...... (2)
- OR Consent of the instructor

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## Certificates

### Environmental Control System Servicer - 4702013039

*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OW, SEC, SKY, SMC, WKC)*

**ACR 100 Refrigeration Fundamentals .................................. 3
- ACR 101 Refrigeration Fundamentals Lab ................................ 2
- ACR 102 HVAC Electricity AND ......................................... 3
- ACR 103 HVAC Electricity Lab OR ...................................... 2
- Comparable Electrical Course* ........................................ (4-5)
- ACR 130 Electrical Components ........................................ 3
- ACR 131 Electrical Components Lab ................................... 2
- ACR 250 Cooling and Dehumidification ................................ 3
- ACR 251 Cooling and Dehumidification Lab ........................ 2
- ACR 260 Heating and Humidification .................................. 3
- ACR 261 Heating and Humidification Lab ............................ 3

**Total Credits** .......................................................... 24-25
## Environmental System Repair Helper - 4702013069
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)*

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<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<tr>
<td>ACR 130</td>
<td>Electrical Components AND</td>
<td>3</td>
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<tr>
<td>ACR 131</td>
<td>Electrical Components Lab</td>
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<tr>
<td>ACR 230</td>
<td>Comparable Electrical Course*</td>
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**Total Credits:** 9-10

## Domestic Air Conditioner and Furnace Installer- 4702013029
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACR 100</td>
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<td>HVAC Electricity AND</td>
<td>3</td>
</tr>
<tr>
<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<tr>
<td>ACR 130</td>
<td>Electrical Components</td>
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<td>ACR 170</td>
<td>Heat Load/Duct Design</td>
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<td>ACR 260</td>
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<td>ACR 262</td>
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<td>ACR 270</td>
<td>Heat Pump Application</td>
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<td>ACR 271</td>
<td>Heat Pump Application</td>
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<td>ACR 290</td>
<td>Journeyman Preparation</td>
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**Total Credits:** 35-36

## Refrigeration Mechanic - 4702013059
*(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC, WKC)*

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<tr>
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<th>Course Name</th>
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<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
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<tr>
<td>ACR 102</td>
<td>HVAC Electricity AND</td>
<td>3</td>
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<tr>
<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<td>ACR 130</td>
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<td>ACR 210</td>
<td>Ice Machines</td>
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<td>ACR 250</td>
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<td>ACR 251</td>
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**Total Credits:** 27-28

## Boiler Maintenance – 4702013079
*(Offered at MYC, SEC, SMC, WKC)*

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<th>Course Name</th>
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<tbody>
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<td>Refrigeration Fundamentals Lab</td>
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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<tr>
<td>ACR 206</td>
<td>Boilers</td>
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<tr>
<td>ACR 207</td>
<td>Commercial HVAC Systems</td>
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**Total Credits:** 20

## Chiller Maintenance – 4702013089
*(Offered at MYC, SEC, SMC, WKC)*

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<th>Course Name</th>
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<td>ACR 102</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<tr>
<td>ACR 208</td>
<td>Chillers</td>
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<tr>
<td>ACR 209</td>
<td>Manual N Load Calculation &amp; Design</td>
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**Total Credits:** 19

## Air Conditioning Technical Electives**:

This list is not all-inclusive. Other courses may be taken with approval of the program instructor/advisor.

<table>
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<th>Course Code</th>
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<td>Sheet Metal Fabrication Lab</td>
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<td>ACR 290</td>
<td>Apprentice Preparation</td>
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<td>ACR 291</td>
<td>Special Problems I</td>
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<td>Special Problems III</td>
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<td>ACR 299</td>
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<td>BAS 160</td>
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<td>FPX 100</td>
<td>Fluid Power</td>
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<td>ETT 110</td>
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<td>Voice and Data Installer Level II</td>
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<td>Fiber Optics Systems</td>
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<td>ETT 118</td>
<td>Residential Network Wiring</td>
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<td>ETT 120</td>
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<td>ETT 124</td>
<td>Advanced Mathematics for Electronics</td>
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<td>ETT 125</td>
<td>Web Page Design</td>
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<td>ETT 202</td>
<td>Television and Radio Systems</td>
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<td>ETT 216</td>
<td>Computer Electronics Fundamentals</td>
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<td>Computer Applications I</td>
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<td>Robotics</td>
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<td>Home Automated Technology</td>
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<td>ETT 264</td>
<td>Rotating Machinery</td>
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<td>Rotating Machinery and Transformers</td>
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<td>Rotating Machinery and Transformers Lab</td>
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<td>Rotating Machinery Electrical Motor Controls I</td>
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<td>Programmable Logic Controllers</td>
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<td>ETT 277</td>
<td>Programmable Logic Controllers Lab</td>
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<td>ETT 278</td>
<td>Electrical Motor Controls II and PLCs</td>
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<td>Electrical Motor Controls II and PLCs Lab</td>
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<tr>
<td>ETT 281</td>
<td>Special Problems I</td>
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<tr>
<td>ETT 283</td>
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<td>Programmable Logic Controllers II</td>
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<td>Programmable Logic Controllers II Lab</td>
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<td>ETT 298</td>
<td>Practicum</td>
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<td>ETT 299</td>
<td>Cooperative Education Program</td>
<td>1-8</td>
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<tr>
<td>ETT 114</td>
<td>Circuits II</td>
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<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist</td>
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<tr>
<td>BRX 112</td>
<td>Blueprint Reading for Machinist</td>
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<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>3</td>
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<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading for Machinist</td>
<td>2</td>
</tr>
</tbody>
</table>
Academic Curricula

Appalachian Studies

The Appalachian Studies certificate will provide students a wide variety of academic directions to follow. The key components for each track, Humanities 202, 203, and 204, will form the core for the Appalachian Studies certificate and will provide a basic overview of all aspects of Appalachian studies. Given this core, students can then select a more focused aspect of Appalachian culture to study.

Certificate

Appalachian Studies - 0501223069
(Offered at ASC, SEC)

Core:

- HUM 202 Survey of Appalachian Studies I ................. 3
- HUM 203 Survey of Appalachian Studies II ................. 3
- HUM 204 Appalachian Seminar .................................................. 3

Subtotal .................................................... 9

Communication Track - 050122301
(Offered at ASC, SEC)

- COM 254 Introduction to Inter-cultural Communication OR .......... 3
- Elective approved by Appalachian Studies Committee or its designee .................................................. (3)

Total .................................................... 12

Creative Writing Track - 050122302
(Offered at ASC, SEC)

- ENG 207 Beginning Workshop in Imaginative Writing OR .......... 3
- Elective approved by Appalachian Studies Committee or its designee .................................................. (3)

Total .................................................... 12

Music Track - 050122303
(Offered at ASC, SEC)

- MJU 101 Folk and Traditional Music of the Western Continents ....... 3

Total .................................................... 12

Science Track - 050122304
(Offered at ASC, SEC)

- BIO 120 Human Ecology OR .................................................. 3
- Elective approved by Appalachian Studies Committee or its designee .................................................. (3)

Total .................................................... 16

Social Science Track - 050122305
(Offered at ASC, SEC)

- SWK 275 The Family OR .................................................. 3
- Elective approved by Appalachian Studies Committee or its designee .................................................. (3)

Total .................................................... 15

Applied Process Technologies

Prepares the graduate for entry-level operations in the power plant, line-man, chemical, petro-chemical, refining, and general industries. Teaches students about automated and semi-automated systems used in various industries. Prepares students in the safe start-up, operation and shut-down of various system components and units. Offers a choice of AAS degree with chemical/refinery operator, power plant operator, and line-man technology, as well as certificate tracks.

Students selecting the certificate options must test at the MAT126 ready level. Progression in the program is contingent upon achievement of a grade of "C" or higher in the Math, Physics, Chemistry and technical courses and maintenance of a 2.0 cumulative grade point average or better on a 4.0 scale.

Associate in Applied Science

Applied Process Technologies - 4103017029
(Offered at ASC, JFC)

General Education Courses

- MAT 126 Technical Algebra & Trigonometry (Recommended) OR .......... 3
- MAT 116 Technical Mathematics .................................................. (3)
- CHE 130 Introductory General & Biological Chemistry OR ............. 4
- CHE 140/145 Introduction to General Chemistry with Lab ......................... (4)
- ENG 101 Writing I .......................................................................... 3
- Social/Behavioral Sciences OR .................................................. 3
- ECO 101 Contemporary Economic Issues (Recommended) .................. 3
Chemical/Refinery Operator Track - 410301701
(Offered at ASC, JFC)

APR 142 Instrumentation ............................................ 4
APR 144 Process Operations ........................................... 4
APR 146 Process Applications ........................................... 2
APR 148 Process Operations Safety ................................... 2
Subtotal 12

Total 60-63

Lineman Technology Track - 410301703
(Offered at ASC, JFC)

APR 158 Lineman Technology I ........................................ 3
APR 159 Lineman Technology I Lab ................................... 4
EE 150 Transformers .................................................... 2
EE 151 Transformer Lab .................................................. 1
APR 258 Lineman Technology II ....................................... 3
APR 259 Lineman Technology II Lab ................................... 4
Subtotal 17

Total 65-68

Electives

APR 299 Cooperative Education Program ......................... (1-6)
COE 199 Co-op ......................................................... (1-8)
QMS 101 Introduction to Quality Systems ......................... (3)
EX 196 Experiential Education ....................................... (1-6)

Certificate

Chemical/Refinery Operator - 410301303

SFA 101 OSHA, Health and Environmental Safety .......... 3
COM 252 Introduction to Interpersonal Communication .... 3
CHE 130 Introductory General & Biological Chemistry OR 4
CHE 140/145 Introduction to General Chemistry with Lab .......... 4
APR 102 Process Fundamentals ................................... 4
APR 104 Rotating & Reciprocating Equipment .................... 3
APR 108 Stationary Equipment .................................... 2
APR 142 Instrumentation ............................................ 4
APR 144 Process Operations ........................................... 4
APR 146 Process Applications ........................................... 2
EES 101 Basic Electronics ........................................... 2
Total 31

Technical Core Courses

Digital Literacy Course ............................................... 3
PHS 175 Applied Physics (Recommended) OR .................. 6
PHY 171 Applied Physics ............................................... 4
SFA 101 OSHA, Health, and Environmental Safety ......... 3
APR 102 Process Fundamentals ................................... 4
APR 104 Rotating & Reciprocating Equipment .................... 3
APR 106 Process Chemistry .......................................... 2
APR 108 Stationary Equipment .................................... 2
APR 202 Federally Mandated Training ............................... 3
APR 204 Safety Skills Training ...................................... 1
APR 251 Application of Process Operations OR ............... 2
APR 291 Special Problems in APR ................................. (2-3)
EES 101 Basic Electronics ........................................... 2
Subtotal 29-32

Chemical/Refinery Operator Track - 410301701
(Offered at ASC, JFC)

APR 142 Instrumentation ............................................ 4
APR 154 Power Plant Practice ........................................ 6
APR 156 Power Plant Protection .................................... 2
Subtotal 12

Total 60-63

Power Plant Operator Track - 410301702
(Offered at ASC, JFC)

APR 142 Instrumentation ............................................ 4
APR 154 Power Plant Practice ........................................ 6
APR 156 Power Plant Protection .................................... 2
Subtotal 12

Total 60-63

Apprenticeship Studies

This program is designed to complement specialized study in a national or state approved apprentice curriculum (i.e. 2000 hours per year on the job in a supervised work environment and 144 hours per year of related classroom instruction). Prerequisite: Completion of national/state certified apprenticeship program.

Associate in Applied Science

Apprenticeship Studies - 479997010
(Offered at ELC, GTW, JFC, WKC)

Required:
Quantitative Reasoning ........................................... 3
Heritage/Humanities .............................................. 3
Social/Behavioral Sciences ......................................... 3
Writing I .................................................................. 3
Oral Communications ............................................. 3
PHS 175 Applied Physics OR ...................................... 4
Other Natural Sciences course with consent of program coordinator ............... (3)
Subtotal 18-19

Technical Core:
Computer/Digital Literacy course OR demonstrated competency .......... 0-3
Apprenticeship Credit* ............................................... 42
Subtotal 42-45

Total Credits 60-64

*Apprenticeship credit requirement can be met by a combination of apprenticeship credit (APS 201: 20-40 credit hours) and other technical courses as approved by the program coordinator.
Architectural Technology

The Architectural Technology program provides instruction in the concepts and skills required for careers in architectural and related professions involved in designing for the built environment. At the core of the curriculum are a series of architectural studios where students prepare construction documents. The series begins with a study of residential construction and culminates with commercial. Emphasis is placed on quality graphic communication, the development of design skills and a thorough understanding of a variety of construction types. Complementing the studio sequence are courses designed to provide instruction in building materials, structures, mechanical/electrical systems, professional practices, and architectural theory and history. Electives in the program allow students to customize their education to fit their interests. Given the wide range of topics covered in the curriculum, graduates are prepared to find employment in architectural and related professional offices including positions in construction estimating, civil engineering, structural engineering, mechanical/electrical engineering, construction management, computer-aided drafting, building code enforcement, specification writing, urban planning, historic preservation, contracting, sub-contracting, and building material sales and marketing.

Associate in Applied Science

Architectural Technology - 1513037019

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACH 100</td>
<td>Construction Documents I</td>
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<tr>
<td>ACH 110</td>
<td>Survey of the Architectural Profession</td>
<td>1</td>
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<tr>
<td>ACH 120</td>
<td>Theory and History of Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 150</td>
<td>Construction Documents II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 160</td>
<td>Building Materials and Construction I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 161</td>
<td>Building Materials and Construction II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 170</td>
<td>Theory and History of Architecture II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 175</td>
<td>Introduction to Systems</td>
<td></td>
</tr>
<tr>
<td>ACH 195</td>
<td>Computer Aided Drafting I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 200</td>
<td>Construction Documents III</td>
<td>3</td>
</tr>
<tr>
<td>ACH 225</td>
<td>Structures</td>
<td>3</td>
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<tr>
<td>ACH 250</td>
<td>Construction Documents IV</td>
<td>3</td>
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<tr>
<td>ACH 260</td>
<td>Office Practice</td>
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</tr>
<tr>
<td>ACH 275</td>
<td>Mechanical and Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Courses ** (see list below)</td>
<td>10</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics OR</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>3</td>
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</table>

Other Quantitative Reasoning course approved by program coordinator ................................ (3)
Heritage/Humanities ................................................. 3
Natural Sciences Course ........................................... 3
Social/Behavioral Sciences Course ................................ 3
Digital Literacy ..................................................... 0-3
Total 65-68

**Technical Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACH 180</td>
<td>Selected Topics in Architectural Technology: (Topic)</td>
<td>1-3</td>
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<tr>
<td>ACH 194</td>
<td>Visual Composition</td>
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<tr>
<td>ACH 198</td>
<td>Practicum in Architectural Technology</td>
<td>1-3</td>
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<tr>
<td>ACH 280</td>
<td>Revit/Building Information Modeling</td>
<td>2</td>
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<tr>
<td>ACH 290</td>
<td>Building Codes I</td>
<td>3</td>
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<tr>
<td>ACH 291</td>
<td>Construction Management</td>
<td></td>
</tr>
<tr>
<td>ACH 292</td>
<td>Building Codes II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 293</td>
<td>Presentation Techniques</td>
<td>3</td>
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<tr>
<td>ACH 294</td>
<td>Specification Writing</td>
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<tr>
<td>ACH 295</td>
<td>Computer Aided Drafting II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 297</td>
<td>Estimating Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ACH 298</td>
<td>Computer 3D Modeling</td>
<td>3</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education: Arch-Tech</td>
<td>1-3</td>
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</table>

Additional Suggested General Education Courses (Not Required)

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<tbody>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
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</tr>
<tr>
<td></td>
<td>Oral Communication Course</td>
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</table>

Auto Body/Collision Repair Technology

From repairing small dents to rebuilding the bodies of wrecked or damaged vehicles, this program maintains the current commercial standards. Students are taught the types of materials used in filler compounds, the colors and chemical make-up of paints used to refinish, welding and cutting procedures, design and installation of trim, cost estimating and preparation for finish work. All are skills applied in actual jobs performed in shop assignments.

Progression in the Auto Body/Collision Repair Technology program is contingent upon achievement of a grade of “C” or better in each course and maintenance of a 2.0 cumulative grade point average.

Diploma

Collision Repair Technician - 4706034019

(Offered at BSC, GTW, HZC, JFC, MYC, SEC, SKY, SMC, WKC)

General Education Courses:

| Area 1 | Written Communication, Oral Communications, or Humanities/Heritage | 3 |
|        | Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning | 3 |
| Subtotal |                                                        | 6 |

Technical Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CRT 100</td>
<td>Introduction to Collision Repair</td>
<td>2</td>
</tr>
<tr>
<td>CRT 130</td>
<td>Non-Structural Analysis and Damage Repair</td>
<td>6</td>
</tr>
<tr>
<td>CRT 131</td>
<td>Non-Structural Analysis and Damage Repair Lab</td>
<td>6</td>
</tr>
<tr>
<td>CRT 150</td>
<td>Painting and Refinishing</td>
<td>6</td>
</tr>
<tr>
<td>CRT 151</td>
<td>Painting and Refinishing Lab</td>
<td>6</td>
</tr>
<tr>
<td>CRT 230</td>
<td>Structural Analysis and Damage Repair</td>
<td>6</td>
</tr>
<tr>
<td>CRT 231</td>
<td>Structural Analysis and Damage Repair Lab</td>
<td>6</td>
</tr>
<tr>
<td>CRT 250</td>
<td>Mechanical and Electrical Components</td>
<td>6</td>
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<tr>
<td>CRT 251</td>
<td>Mechanical and Electrical Components Lab</td>
<td>6</td>
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<tr>
<td>CRT 198</td>
<td>Practicum OR</td>
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<td>CRT 199</td>
<td>Cooperative Education</td>
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Recommended Program Electives

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<tr>
<td>CRT 298</td>
<td>Advanced Practicum OR</td>
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<tr>
<td>CRT 299</td>
<td>Advanced Cooperative Education</td>
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</tbody>
</table>

Certificates

Automotive Painter - 4706033119

(Offered at BSC, GTW, HZC, JFC, MYC, SEC, SKY, SMC, WKC)

Technical Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRT 100</td>
<td>Introduction to Collision Repair</td>
<td>2</td>
</tr>
<tr>
<td>CRT 130</td>
<td>Non-Structural Analysis and Damage Repair</td>
<td>6</td>
</tr>
<tr>
<td>CRT 131</td>
<td>Non-Structural Analysis and Damage Repair Lab</td>
<td>6</td>
</tr>
<tr>
<td>CRT 150</td>
<td>Painting and Refinishing</td>
<td>6</td>
</tr>
<tr>
<td>CRT 151</td>
<td>Painting and Refinishing Lab</td>
<td>6</td>
</tr>
<tr>
<td>CRT 230</td>
<td>Structural Analysis and Damage Repair</td>
<td>6</td>
</tr>
<tr>
<td>CRT 231</td>
<td>Structural Analysis and Damage Repair Lab</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Credits 38
Automotive Painter Helper - 4706033029
(Offered at BSC, GTW, HZC, JFC, MYC, SEC, SKY, SMC, WKC)

Required:
CRT 100 Introduction to Collision Repair ........................................ 2
CRT 150 Painting and Refinishing ......................................................... 6
CRT 151 Painting and Refinishing Lab .................................................. 6
Total Credits 14

Collision Repair Helper - 4706033059
(Offered at BSC, GTW, HZC, JFC, MYC, SEC, SKY, SMC, WKC)

Required:
CRT 100 Introduction to Collision Repair ........................................ 2
Electives (Collision Repair Courses with the exception of CRT 150 and CRT 151) .................................................. 12
Total Credits 14

Collision Repairer – 4706033109
(Offered at BSC, GTW, SEC, SKY)

CRT 100 Introduction to Collision Repair ........................................ 2
CRT 130 Non-Structural Analysis and Damage Repair ........................................ 6
CRT 131 Non-Structural Analysis and Damage Repair Lab ........................................ 6
CRT 150 Painting and Refinishing ......................................................... 6
CRT 151 Painting and Refinishing Lab .................................................. 6
CRT 230 Structural Analysis and Damage Repair ........................................ 6
CRT 231 Structural Analysis and Damage Repair Lab ........................................ 6
CRT 250 Mechanical and Electrical Components ........................................ 6
CRT 251 Mechanical and Electrical Components Lab ........................................ 6
Total Credits 50

Automotive Technology

Instruction in systems such as engines, fuel, on-board computers, transmissions, steering, suspension, and brakes is the basis for this program.

The Automotive Technician option provides knowledge of the various systems used to develop skills in troubleshooting, performing preventative maintenance, servicing and repairing automobiles. The program, which is designed to be completed in two years, prepares graduates for entry-level service technician jobs in the auto repair industry. The student may be provided a work-study experience alternating between periods of work on-site and work in a classroom-laboratory setting.

The Parts/Service Writer option provides knowledge of the various systems and components and how they relate. This knowledge enables the student to more accurately interpret their customers’ automotive complaints, identify and sell automotive parts, and provide efficient customer service within the automotive service and repair industry. The student may take the ASE exams in these areas when they have completed the requirements for these tests.

The Hybrid and Electric Vehicle Technician certificate complements the Associate in Applied Science degree and is designed for students to increase and develop the basic knowledge and skills necessary for diagnosing and repairing hybrid and electric vehicles. The additional credential is designed for students who wish to enhance their knowledge of hybrid and electric vehicles. This credential will make the student more employable in the automotive repair field.

Note: Hours Exception (69-72 for the A.A.S. and 61-64 for the Diploma) approved by the KCTCS Board of Regents in March 2011

Associate in Applied Science

Automotive Technology - 4706047019
(Offered at BLC, BSC, ELC, HZC, JFC, OWC, SKY, WKC)

General Education:
Quantitative Reasoning ................................................................. 3
Natural Sciences ........................................................................... 3
Social/Behavioral Sciences .............................................................. 3
Heritage/ Humanities .................................................................... 3
Written Communication ................................................................. 3
General Education Total Credit Hours 15

Technical Core:
Digital Literacy course OR demonstrated competency ........................ 0-3
ADX 120 Basic Automotive Electricity .............................................. 3
ADX 150 Engine Repair ................................................................. 3
ADX 170 Climate Control ............................................................... 3
ADX 260 Electrical Systems .......................................................... 3
AUI 110 Brake Systems ................................................................. 3
AUI 130 Manual Transmissions ...................................................... 3
AUI 140 Basic Fuel and Ignition Systems ......................................... 3
AUI 142 Emission Systems ............................................................ 3
AUI 160 Suspension and Steering ................................................... 3
AUI 180 Automatic Transmission/Transaxle .................................... 3
AUI 240 Computer Control Systems and Diagnosis ......................... 3
Total Technical core credits 33-36

Associate in Applied Science

Automotive Technology - 470604701
(Offered at BLC, BSC, ELC, HZC, JFC, OWC, SKY, WKC)

General Education:
Quantitative Reasoning ................................................................. 3
Natural Sciences ........................................................................... 3
Social/Behavioral Sciences .............................................................. 3
Heritage/ Humanities .................................................................... 3
Written Communication ................................................................. 3
General Education Total Credit Hours 15

Technical Core:
Digital Literacy course OR demonstrated competency ........................ 0-3
ADX 120 Basic Automotive Electricity .............................................. 3
ADX 150 Engine Repair ................................................................. 3
ADX 170 Climate Control ............................................................... 3
ADX 260 Electrical Systems .......................................................... 3
AUI 110 Brake Systems ................................................................. 3
AUI 130 Manual Transmissions ...................................................... 3
AUI 140 Basic Fuel and Ignition Systems ......................................... 3
AUI 142 Emission Systems ............................................................ 3
AUI 160 Suspension and Steering ................................................... 3
AUI 180 Automatic Transmission/Transaxle .................................... 3
AUI 240 Computer Control Systems and Diagnosis ......................... 3
Total Technical core credits 33-36

Automotive Parts/Service Writer Track - 470604702
(Offered at JFC, OWC)

ISX 100 Industrial Safety ................................................................. 3
TQX 110 Total Quality Management .................................................. 3
B&E 100 Introduction to Business and Economics ................................ 1
ACT 101 Fundamentals of Accounting ............................................. 3
TEC 100 Communication for Business and Industry OR .................... 3
CMS 152 Writing for Business and Industry ...................................... 3
Subtotal Credits 13

Total Credits 69-72

Diploma

Automotive Technician Track - 4706044019
(Offered at ASC, BLC, BSC, ELC, HZC, JFC, OWC, SKY, SMC, WKC)

General Education:
Area 1= Written Communication, Oral Communications, or Humanities/Heritage ................................................................. 3
Area 2 = Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning ................................................................. 3
General Education Total Credit Hours 6
### Technical Core:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADX 120</td>
<td>Basic Automotive Electricity</td>
<td>3</td>
</tr>
<tr>
<td>ADX 121</td>
<td>Basic Automotive Electricity Lab</td>
<td>2</td>
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<tr>
<td>ADX 150</td>
<td>Engine Repair</td>
<td>3</td>
</tr>
<tr>
<td>ADX 151</td>
<td>Engine Repair Lab</td>
<td>3</td>
</tr>
<tr>
<td>ADX 170</td>
<td>Climate Control</td>
<td>3</td>
</tr>
<tr>
<td>ADX 171</td>
<td>Climate Control Lab</td>
<td>1</td>
</tr>
<tr>
<td>ADX 260</td>
<td>Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>ADX 261</td>
<td>Electrical Systems Lab</td>
<td>2</td>
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<tr>
<td>AUT 110</td>
<td>Brake Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUT 111</td>
<td>Brake Systems Lab</td>
<td>2</td>
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<td>AUT 130</td>
<td>Manual Transmissions</td>
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<td>AUT 131</td>
<td>Manual Transmissions Lab</td>
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<tr>
<td>AUT 140</td>
<td>Basic Fuel and Ignition Systems</td>
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<td>AUT 141</td>
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<td>AUT 142</td>
<td>Emission Systems</td>
<td>3</td>
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<tr>
<td>AUT 143</td>
<td>Emission Systems Lab</td>
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</tr>
<tr>
<td>AUT 160</td>
<td>Suspension and Steering</td>
<td>3</td>
</tr>
<tr>
<td>AUT 161</td>
<td>Suspension and Steering Lab</td>
<td>2</td>
</tr>
<tr>
<td>AUT 180</td>
<td>Automatic Transmission/Transaxle</td>
<td>3</td>
</tr>
<tr>
<td>AUT 181</td>
<td>Automatic Transmission/Transaxle Lab</td>
<td>2</td>
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<tr>
<td>AUT 240</td>
<td>Computer Control Systems and Diagnosis</td>
<td>3</td>
</tr>
<tr>
<td>AUT 241</td>
<td>Computer Control Systems and Diagnosis Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

Any approved work experience component: 1

**Subtotal Credits:** 55-58

**Total Credits:** 61-64

### Automotive Parts/Service Writer - 4706044029

(Offered at JFC, OWC)

**General Education:**

Area 1 = Written Communication, Oral Communications, or Humanities/Heritage: 3

Area 2 = Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning: 3

**General Education Total Credit Hours:** 6

### Technical or Support Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADX 120</td>
<td>Basic Automotive Electricity</td>
<td>3</td>
</tr>
<tr>
<td>ADX 150</td>
<td>Engine Repair</td>
<td>3</td>
</tr>
<tr>
<td>ADX 170</td>
<td>Climate Control</td>
<td>3</td>
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<td>ADX 260</td>
<td>Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUT 110</td>
<td>Brake Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUT 130</td>
<td>Manual Transmissions</td>
<td>3</td>
</tr>
<tr>
<td>AUT 140</td>
<td>Basic Fuel and Ignition Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUT 142</td>
<td>Emission Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUT 160</td>
<td>Suspension and Steering</td>
<td>3</td>
</tr>
<tr>
<td>AUT 180</td>
<td>Automatic Transmission/Transaxle</td>
<td>3</td>
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<tr>
<td>AUT 240</td>
<td>Computer Control Systems and Diagnosis</td>
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<tr>
<td>B&amp;E 100</td>
<td>Introduction to Business and Economics</td>
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<tr>
<td>TEC 100</td>
<td>Communication for Business and Industry  OR</td>
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<td>CMS 152</td>
<td>Writing for Business and Industry</td>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
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</table>

Any approved work experience component: 1

**Technical or Support Courses Total Credit Hours:** 47-50 credits

**Total Credits:** 53-56 credits

### Certificates

#### Automotive Air Conditioning Mechanic - 4706043019

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
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<td>Climate Control</td>
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<td>ADX 171</td>
<td>Climate Control Lab</td>
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**Total Credits:** 4

#### Automotive Electrician - 4706043039

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
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<th>Course Title</th>
<th>Credits</th>
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<td>AUT 120</td>
<td>Basic Automotive Electricity ANDD</td>
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<td>AUT 121</td>
<td>Basic Automotive Electricity Lab</td>
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<td>ADX 260</td>
<td>Electrical Systems</td>
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<tr>
<td>ADX 261</td>
<td>Electrical Systems Lab</td>
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</table>

**Total Credits:** 10

#### Manual Transmission/Drive Train Technician - 4706043059

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
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<td>AUT 130</td>
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<tr>
<td>AUT 131</td>
<td>Manual Transmissions Lab</td>
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**Total Credits:** 5

#### Automatic Transmission/Transaxle Technician - 4706043079

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
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<tr>
<td>AUT 181</td>
<td>Automatic Transmission/Transaxle Lab</td>
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</tr>
</tbody>
</table>

**Total Credits:** 5

#### Brake Repairer - 4706043069

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
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<th>Course Code</th>
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<td>AUT 110</td>
<td>Brake Systems</td>
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<tr>
<td>AUT 111</td>
<td>Brake Systems Lab</td>
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</tbody>
</table>

**Total Credits:** 5

#### Engine Repairer - 4706043089

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
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<tr>
<td>AUT 151</td>
<td>Engine Repairer</td>
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</table>

**Total Credits:** 5

#### Front End Mechanic - 4706043099

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>AUT 160</td>
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<tr>
<td>AUT 161</td>
<td>Suspension and Steering Lab</td>
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</table>

**Total Credits:** 5

#### Tune-up Mechanic - 4706043109

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>AUT 120</td>
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<td>ADX 260</td>
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<td>ADX 261</td>
<td>Electrical Systems Lab</td>
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</tr>
<tr>
<td>AUT 140</td>
<td>Basic Fuel and Ignition Systems</td>
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<td>AUT 141</td>
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<tr>
<td>AUT 142</td>
<td>Emissions Systems</td>
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</table>
### Aviation Maintenance Technology

Expertise in the inspection, repair, service and overhaul of aircraft and engines is the goal of this program certified by the Federal Aviation Agency (FAA). Interpreting specifications from service and technical manuals, using testing procedures and equipment, diagnosing problems and making necessary repairs are the skills taught in aircraft maintenance.

To work in the aircraft industry, the FAA must certify students completing this program.

Students enrolled in the Aviation Maintenance Technology program must achieve a minimum grade of “C” in each FAA accredited course.

Note: Hours Exception (75-76 for the A.A.S. and 66-67 for the diploma) approved by the KCTCS Board of Regents in June 2011.

### Associate in Applied Science

#### Airframe and Power Plant Maintenance Technician - 4706084049

**General Education:** 6 credit hour requirement for diploma

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Written Communication, Oral Communications, or Humanities/Heritage</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>Area 2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
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</tr>
<tr>
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<td>6</td>
</tr>
</tbody>
</table>

**Total Credits** 76

| ATE 100 | Aviation Math | 1 |
| ATE 102 | Introduction to Aviation Maintenance Technology I | 3 |
| ATE 104 | Introduction to Aviation Maintenance Technology II | 3 |
| ATE 106 | Introduction to Aviation Maintenance Technology III | 3 |
| ATE 108 | Introduction to Aviation Maintenance Technology IV | 3 |
| ATE 202 | Aircraft Structures I | 3 |
| ATE 204 | Aircraft Structures II | 3 |
| ATE 206 | Aircraft Structures III | 3 |
| ATE 208 | Aircraft Structures IV | 3 |
| ATE 222 | Aircraft Systems I | 3 |
| ATE 224 | Aircraft Systems II | 3 |
| ATE 226 | Aircraft Systems III | 3 |
| ATE 254 | Aircraft Powerplant Systems II | 3 |
| ATE 256 | Aircraft Powerplant Systems III | 3 |
| ATE 258 | Aircraft Powerplant Systems IV | 3 |
| **Total Credits** | | 67 |

**Note:** Computer/digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

### Certificates

#### Airframe Maintenance Technician - 4706083069

**General Education:** 6 credit hour requirement for diploma

| ATE 100 | Aviation Math | 1 |
| ATE 102 | Introduction to Aviation Maintenance Technology I | 3 |
| ATE 104 | Introduction to Aviation Maintenance Technology II | 3 |
| ATE 106 | Introduction to Aviation Maintenance Technology III | 3 |
| ATE 108 | Introduction to Aviation Maintenance Technology IV | 3 |
| ATE 202 | Aircraft Structures I | 3 |
| ATE 204 | Aircraft Structures II | 3 |
| ATE 206 | Aircraft Structures III | 3 |
| ATE 208 | Aircraft Structures IV | 3 |
| ATE 222 | Aircraft Systems I | 3 |
| ATE 224 | Aircraft Systems II | 3 |
| ATE 226 | Aircraft Systems III | 3 |
| ATE 228 | Aircraft Systems IV | 3 |
| **Total Credits** | | 37 |

**Note:** Computer/digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

### Associate in Applied Science

#### Aviation Maintenance Technology – 4706087029

**General Education:**

| ENG 101 | Writing I | 3 |
| Quantitative Reasoning | 3 |
| Natural Sciences | 3 |
| Heritage/Humanities | 3 |
| Social/Behavioral Sciences | 3 |
| **Subtotal** | 15 |

**Total Credits** 25

| ATE 100 | Aviation Math | 1 |
| ATE 102 | Introduction to Aviation Maintenance Technology I | 3 |
| ATE 104 | Introduction to Aviation Maintenance Technology II | 3 |
| ATE 106 | Introduction to Aviation Maintenance Technology III | 3 |
| ATE 108 | Introduction to Aviation Maintenance Technology IV | 3 |
| ATE 202 | Aircraft Structures I | 3 |
| ATE 204 | Aircraft Structures II | 3 |
| ATE 206 | Aircraft Structures III | 3 |
| ATE 208 | Aircraft Structures IV | 3 |
| ATE 222 | Aircraft Systems I | 3 |
| ATE 224 | Aircraft Systems II | 3 |
| ATE 226 | Aircraft Systems III | 3 |
| ATE 254 | Aircraft Powerplant Systems II | 3 |
| ATE 256 | Aircraft Powerplant Systems III | 3 |
| ATE 258 | Aircraft Powerplant Systems IV | 3 |
| **Total Credits** | | 25 |

**Note:** Computer/digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.
Biomedical Technology Systems

The Biomedical Technology Systems (BTS) program prepares the adult learner to repair, maintain, and manage a wide variety of medical devices, equipment, and systems employed in various healthcare sectors. The learner will gain a holistic perspective of the life-cycle duties and skills needed to assure that medical devices meet safety and performance expectations. The program addresses both general and specialized medical technologies along with how these technologies are interfaced with health IT networks. Upon completion of the program, the graduate will be prepared for immediate employment as an entry-level biomedical equipment technician professional and may pursue employment with a number of employers including, but not limited to: hospitals, clinics, home health equipment companies, third-party medical equipment service providers, and medical equipment manufacturers.

Associate in Applied Science

Biomedical Technology Systems - 1504017029

(Offered at MDC)

General Education Courses

ENG 101 Writing I ............................................. 3
MAT 126 Technical Algebra and Trigonometry OR .......................... 3
MAT 150 College Algebra ....................................... 3
PHY 171 Applied Physics .......................................... 4
SOC 110 Social/Behavioral Sciences .................................. 3
HRS 001 Heritage/Humanities ..................................... 3

Subtotal 16

Technical Support Courses

AIT 1001 Basic Electrical Knowledge .................................. 2
AIT 110 Electrical Power Distribution ................................ 1
BIO 130 Basic Anatomy and Physiology with Laboratory ....... 4
CTT 105 Introduction to Computing ................................ 3
CTT 111 Computer Hardware and Software ...................... 4
CTT 160 Introduction to Networking Concepts .................. 4
CTT 180 Security Fundamentals .................................... 3

Subtotal 21

Technical Courses

BTS 100 Biomedical Technology Systems: A Career Perspective . 1
BTS 110 Environmental Risks and Precautionary Measures for the 1
BTS Professional .................................................. 1
BTS 120 Essentials of Biomedical Electronics I ....................... 2
BTS 125 Essentials of Biomedical Electronics II ..................... 2
BTS 130 Medical Equipment Management I ........................ 2
BTS 140 Science Principles Employed in Medical Technologies . 1
BTS 200 Patient Care Support and Management Systems ......... 2
BTS 210 Diagnostic Medical Equipment and Non-Radiographic 2
BTS 220 Laboratory Devices, Instruments, and Analyzers ........ 2
BTS 230 Medical Equipment Management II ........................ 2
BTS 250 Introduction to Medical-Based IT Networks and Standards 2
BTS 260 Radiographic Imaging Modalities .......................... 2
BTS 270 Therapeutic Equipment Modalities I ......................... 2
BTS 275 Therapeutic Equipment Modalities II ........................ 2
BTS 280 General Care Monitoring and Instrumentation ............ 2
BTS 285 Critical Care Monitoring and Instrumentation ............. 2
BTS 290 Clinical Experience in Biomedical ......................... 2

Subtotal 31

Elective

BTS 299 Selected Topics of Investigation in Biomedical .......... (0.5-5.0)

Certificate

Foundations in Biomedical Technology Networking Systems - 1504013029

(Offered at MDC)

CTT 105 Introduction to Computing ................................ 3
CTT 111 Computer Hardware and Software ...................... 4
CTT 160 Introduction to Networking Concepts .................. 4
CTT 180 Security Fundamentals .................................... 3
BTS 250 Introduction to Medical-Based IT Networks and Standards 2

Subtotal 16

Biotechnology Laboratory Technician

The Biotechnology Laboratory Technician AAS program provides the basic knowledge and laboratory skills needed to prepare for entry-level jobs in university, government, pharmaceutical, or industrial biotechnology laboratories. Graduates of the program will be able to seek employment in biotechnology laboratories such as biomanufacturing, quality control, quality assurance, risk management, and regulatory compliance. The program has been designed to develop skills in basic analysis of biological molecules (DNA and proteins), use of bioreactors, recombinant DNA technology, generation of cell cultures, immunological methods, regulatory compliance (GMPs and GLPs), accurate documentation, and laboratory safety skills. Some courses are dual credit and college credit can be earned while students are enrolled in secondary school.

The Biotechnology Laboratory Assistant certificate provides basic training and personal support to prepare students for certificates and degrees in biotechnology or entry level employment in bioscience laboratories. The program is intended for students with little or no background in science, although the program is open to all students. The program is designed to prepare students for entry-level employment in bioscience laboratories.

The Basic Biotechnician certificate introduces hands-on laboratory training needed for entry-level employment in a biotechnological laboratory.

The Advanced Biotechnician certificate provides practical laboratory skills to supplement theoretical knowledge gained from previous coursework, to improve employability in the biotechnology industry.

The Bioinformatics certificate introduces interdisciplinary curriculum to gain skills required to seek employment at an entry level in performing data acquisition, management, and analysis in laboratory environments. The certificate program can also benefit working professionals seeking to advance or change their careers. Students will learn basic programming,
concepts of molecular biology, and use of bioinformatics applications and resources. Emphasis will be placed on the skills required to become creative and flexible team members and leaders who can work with others in the dynamic interdisciplinary team environment found in today’s biotechnology companies. The Bioinformatics certificate is a joint credential within the Biotechnology Laboratory Technician and Computer Information Technologies areas.

The Environmental Biotechnician certificate provides hands-on training using an interdisciplinary approach of integrating applied biotechnology to study the natural environment. Green technologies, sustainability, biodegradation, and bioremediation will be explored. Students will collect water, air, and soil samples and conduct experiments related to the detection and monitoring of environmental pollutants. The use of biotechnology laboratory methods, system’s biology, and bioinformatics will be emphasized. Students who complete the curriculum satisfactorily are qualified for entry level positions in laboratories or field research companies, including federal, state, or local agencies, university or privately owned biotechnology research labs, or nature resource management organizations. The Environmental Biotechnician Certificate requires successful completion of 21 hours of coursework, which may be earned in 2 semesters, provided all the prerequisites have been met for the required coursework. This is a joint certificate in the Biotechnology Laboratory Technician and Environmental Science Technician programs.

**Associate in Applied Science**

**Biotechnology Laboratory Technician – 4101017029**

*(Offered at BLC)*

**Required General Education Courses**

- Heritage/ Humanities .......................................................... 3
- Social/ Behavioral Sciences .................................................. 3
- Natural Sciences with Laboratory 1 ...................................... 4 – 5
- Quantitative Reasoning 2 .................................................... 3
- Written Communication ....................................................... 3

**Subtotal: General Education Requirements** 16-17

1. Science requirement may be satisfied by:
   - One semester of college biology with lab, or
   - One semester of college chemistry with lab, or
   - Course approved by the program coordinator.

2. Assessment score above the KCTCS transitional course placement level or completion of transitional courses (offered at BLC).

**Required Technical Core Courses**

- BTN 101 Introduction to Biotechnology .................................. 1
- BTN 105 Applied Biotechnology Laboratory Calculations .......... 3
- BTN 201 Biotechnology Techniques I ................................... 4
- BTN 202 Biotechnology Techniques II .................................. 4
- Digital Literacy 3 ................................................................ 0-3

**Subtotal: Technical Core Requirements** 12-1

3. Digital literacy must be demonstrated either by competency exam or by successfully completing a digital literacy course.

**Required Technical Elective Courses**

Choose at least 28 credit hours:

- BTN 106 Fundamentals of Scientific Communication ............. 3
- BTN 110 Nucleic Acids ....................................................... 4
- BTN 115 Biomanufacturing .................................................. 4
- BTN 120 Biofuels .............................................................. 4
- BTN 125 Bioinformatics I .................................................... 2
- BTN 126 Bioinformatics II .................................................. 2
- BTN 160 Introduction to Agricultural Biotechnology .......... 4
- BTN 210 Cell Culture and Function ..................................... 4
- BTN 220 Immunological Methods ..................................... 4
- BTN 225 Protein Bioseparation Methods ............................ 4
- BTN 295 Independent Investigation in Biotechnology 4 OR .... 1-3
- BTN 298 Biotechnology Learning Laboratory 5 OR ............. 1-8

4. Students are strongly encouraged to gain hands-on experience by enrolling in BTN 295, BTN 298 or COE 199, to reinforce technical skills learned in the classroom.

**Technical Support Courses**

Choose at least 4 credit hours within Natural Sciences and Mathematics, usually courses with prefixes ANA, BIO, BTN, CHE, EST, GLY, MA, MAT, PGY, PHY, STA or any course approved by the program coordinator. BTN courses not used to satisfy Technical Electives may be used to satisfy Technical Support.

**Subtotal: Technical Support Courses** 4

**Total** 60 - 64

**Certificate**

**Biotechnology Laboratory Assistant - 4101013040**

*(Offered at BLC)*

- BTN 100 Contextual Science with Laboratory 6 ..................... 4
- BTN 103 Contextual Laboratory Language 7 ........................ 3
- BTN 104 Contextual Laboratory Calculations 8 .................... 3
- BTN 101 Introduction to Biotechnology ................................ 1
- BTN 106 Fundamentals of Scientific Communications .......... 3
- Digital Literacy 3 ................................................................ 3

**Total** 17

6. Science requirement may be satisfied by:
   - Completion of the Biotechnology Laboratory Assistant Certificate, or
   - Completion of BTN 100, BTN 104 or cohort with a “C” or better, or
   - One semester of college biology with lab, or
   - One semester of college chemistry with lab, or
   - Course approved by the program coordinator.

**Basic Biotechnician- 4101013020**

*(Offered at BLC)*

- BTN 101 Introduction to Biotechnology ................................ 1
- BTN 105 Applied Biotechnology Laboratory Calculations .......... 3
- BTN 201 Biotechnology Techniques I ................................... 4
- BTN 202 Biotechnology Techniques II .................................. 4
- Science 6 ........................................................................... 4-5

**Total** 16-17

**Advanced Biotechnician - 4101013050**

*(Offered at BLC)*

- BTN 101 Introduction to Biotechnology ................................ 1
- BTN 105 Applied Biotechnology Laboratory Calculations .......... 3
- BTN 201 Biotechnology Techniques I ................................... 4
- BTN 202 Biotechnology Techniques II .................................. 4
- **Choose 15 credits from the following:**
  - BTN 106 Fundamentals of Scientific Communication ............. 3
  - BTN 110 Nucleic Acids ....................................................... 4
  - BTN 115 Biomanufacturing .................................................. 4
  - BTN 120 Biofuels .............................................................. 4
  - BTN 125 Bioinformatics I .................................................... 2
  - BTN 126 Bioinformatics II .................................................. 2
  - BTN 160 Introduction to Agricultural Biotechnology .......... 4
  - BTN 210 Cell Culture and Function ..................................... 4
  - BTN 220 Immunological Methods ..................................... 4
  - BTN 225 Protein Bioseparation Methods ............................ 4
  - BTN 295 Independent Investigation in Biotechnology 4 OR .... 1-3
  - BTN 298 Biotechnology Learning Laboratory 5 OR ............. 1-8
The Broadband Technology program provides training through three distinct tracks—Broadband Technician, Broadband Telecommunications Equipment Installer Track, and Broadband Design and Applications Track. The program includes instruction in telecommunications, outside plant operations, computer networking, communications networks and systems, signals, circuits, fiber optics, and wireless systems and technology. Progression in the Broadband Technology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

**Broadband Technician Track**

The track provides course work, competencies and experiences to prepare the students for success as Broadband Technicians. Areas of study as related to this track include HFC (Hybrid Fiber Cable), Fiber Optics Systems, Basic Telephony Installations and Maintenance, Outside Plant Pole Climbing and Construction Safety, and Electrical Construction (specifically Fiber Optic and Data Cable Installations).

**Broadband Telecommunications Equipment Installer Track**

This track provides course work, competencies and experiences to prepare the students for success as Broadband Telecommunications Equipment Installers. Areas of study as related to this track include Computer Hardware and Software, Introduction to GIS (Graphical Information Systems), Functions and Operation of PBX Systems, Fiber Optics Systems Splicing and Maintenance, Basic Telephony Installations and Maintenance, Outside Plant Pole Climbing and Construction Safety.

**Broadband Design and Applications Track**

The track provides course work, competencies and experiences to prepare the students for success in Broadband Design and Applications. Areas of study as related to this track include GIS (Graphical Information Systems), Security Systems and Regulations, HFC (Hybrid Fiber Cable), Satellite Dishes, Fiber Optic Systems, NEC (National Electrical Code) outlining the standards for proper installation of communication cables and systems according to the NFPA70 (National Fire Protection Association), and Electrical Construction (specifically Fiber Optic and Data Cable Installations).

**Bioinformatics – 4101013060**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>BTN 105</td>
<td>Applied Biotechnology Laboratory Calculations</td>
<td>3</td>
</tr>
<tr>
<td>BTN 125</td>
<td>Bioinformatics I</td>
<td>2</td>
</tr>
<tr>
<td>BTN 126</td>
<td>Bioinformatics II</td>
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<td>BTN 201</td>
<td>Biotechnology Techniques I</td>
<td>4</td>
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<td>BTN 202</td>
<td>Biotechnology Techniques II</td>
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<tr>
<td>CIT 149</td>
<td>Java I OR</td>
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<tr>
<td>CS 115</td>
<td>Introduction to Computer Programming OR</td>
<td>3</td>
</tr>
<tr>
<td>INF 120</td>
<td>Elementary Programming</td>
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</tr>
<tr>
<td>CIT 170</td>
<td>Database Design Fundamentals OR</td>
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<tr>
<td>INF 282</td>
<td>Introduction to Databases</td>
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<tr>
<td>CIT 249</td>
<td>Java II OR</td>
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<td>CS 215</td>
<td>Introduction to Program Design, Abstraction, and Problem</td>
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<tr>
<td>INF 260</td>
<td>Object Oriented Programming 1 AND</td>
<td>3</td>
</tr>
<tr>
<td>INF 260L</td>
<td>Object Oriented Programming 1 Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development OR</td>
<td>3</td>
</tr>
<tr>
<td>IMD 133</td>
<td>Beginning Web Design OR</td>
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</tr>
<tr>
<td>INF 286</td>
<td>Introduction to Web Development</td>
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</tr>
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</table>

**Total** 28-29

**Environmental Biotechnician – 4101013070**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>BTN 201</td>
<td>Biotechnology Techniques I</td>
<td>4</td>
</tr>
<tr>
<td>BTN 202</td>
<td>Biotechnology Techniques II</td>
<td>4</td>
</tr>
<tr>
<td>CHE 170</td>
<td>General College Chemistry I</td>
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<tr>
<td>CHE 175</td>
<td>General College Chemistry Laboratory I</td>
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<tr>
<td>EST 150</td>
<td>Introductory Ecology</td>
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<tr>
<td>EST 170</td>
<td>Environmental Sampling Laboratory</td>
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</tr>
<tr>
<td>EST 260</td>
<td>Environmental Methods and Analysis Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total** 21

*Students are strongly encouraged to gain hands-on experience by enrolling in BTN 295, BTN 298 or COE 199, to reinforce technical skills learned in the classroom.

**Prerequisites:**

- At least one semester of college level chemistry and college level biology, with an earned associate’s degree or higher.
- Or consent of program coordinator.

**Environmental Methods and Analysis Lab**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
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</tr>
<tr>
<td>BTN 201</td>
<td>Biotechnology Techniques I</td>
<td>4</td>
</tr>
<tr>
<td>BTN 202</td>
<td>Biotechnology Techniques II</td>
<td>4</td>
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<tr>
<td>CHE 170</td>
<td>General College Chemistry I</td>
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<tr>
<td>CHE 175</td>
<td>General College Chemistry Laboratory I</td>
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<tr>
<td>EST 150</td>
<td>Introductory Ecology</td>
<td>4</td>
</tr>
<tr>
<td>EST 170</td>
<td>Environmental Sampling Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>EST 260</td>
<td>Environmental Methods and Analysis Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total** 21
learn a variety of duties including installation, changes of service, additional outlet installation, disconnection of service, payment collection, and any special requests customers may have in regard to installation.

Associate in Applied Science

Broadband Technology – 4701037019

(Offered at BSC)

General Education:
MAT 150 College Algebra OR.................................................3
MAT 126 Technical Algebra and Trigonometry.......................(3)
PHY 171 Applied Physics OR..................................................4
Other Natural Science with Consent of Program Coordinator .................................................(3)
ENG 101 Writing I.................................................................3
Social/Behavioral Science Course...........................................3
Oral Communications Course.............................................3
Heritage/Humanities............................................................3
General Education Credit Hours .........................................18-19

Technical Core
ELT 110 Circuits I...............................................................5
ELT 120 Digital I.................................................................3
BBT 289 Broadband Technology Capstone............................1
CIT 105 Introduction to Computers OR.................................3
Digital Literacy course .......................................................(3)
CIT 111 Computer Hardware and Software..........................4
CIT 161 Introduction to Networks.........................................4
ISX 100 Industrial Safety.....................................................3
BBT 100 Introduction to HFC Cable-TV...............................3
BBT 200 Introduction to Cellular Technology.........................2
Subtotal .................................................................28

Broadband Technician Track - 470103701

(Offered at BSC)
EET 253 Electrical Construction II Lab....................................2
EET 250 National Electrical Code ...........................................4
Track Subtotal ...............................................................21

Total Credit Hours .....................................................67-68

Certificates

Broadband Basic Installer – 4701033050

(Offered at )

ELT 110 Circuits I...............................................................5
BBT 100 Introduction to HFC Cable-TV...............................3
BBT 200 Introduction to Cellular Technology.........................2
ELT 224 Basic Telecommunications Installation and Maintenance..3
Total .................................................................13

Broadband Support Technician – 4701033060

(Offered at )

ELT 110 Circuits I...............................................................5
ELT 120 Digital I.................................................................3
CIT 105 Introduction to Computers OR.................................3
Digital Literacy Course.......................................................(3)
CIT 111 Computer Hardware and Software..........................4
CIT 161 Introduction to Networks.........................................4
ISX 100 Industrial Safety.....................................................3
BBT 100 Introduction to HFC Cable-TV...............................3
BBT 200 Introduction to Cellular Technology.........................2
Total .................................................................27

Broadband Technician Specialist – 4701033070

(Offered at )

BBT 100 Introduction to HFC Cable-TV...............................3
BBT 200 Introduction to Cellular Technology.........................2
EET 110 Voice & Data Installer Level I.................................4
ETT 116 Fiber Optic Systems..............................................3
ELT 224 Basic Telecommunications Installation and Maintenance..3
ELT 222 Mechanics of Telephony..........................................3
EET 154 Electrical Construction I.........................................2
EET 155 Electrical Construction I Laboratory........................2
EET 252 Electrical Construction II.......................................2
EET 253 Electrical Construction II Laboratory........................2
Total .................................................................26

Broadband Telecommunications Equipment Installer – 4701033080

(Offered at )

CIT 105 Introduction to Computers OR.................................3
Digital Literacy Course.......................................................(3)
CIT 111 Computer Hardware and Software..........................4
BTT 220 PBX Installations....................................................2
BTT 200 Introduction to Cellular Technology.........................2
EET 110 Voice & Data Installer Level I.................................4
EET 116 Fiber Optics Systems..............................................3
CIT 161 Introduction to Networks.........................................4
Technical Elective Approved by Program Coordinator.................1-3
Total .................................................................23-25

Broadband Cyber Security Technician – 4701033090

(Offered at )

BTT 210 Security Systems Applications..................................3
EET 105 Introduction to Computers OR.................................3
Digital Literacy Course.......................................................(3)
CIT 111 Computer Hardware and Software..........................4
CIT 161 Introduction to Networks.........................................4
CIT 180 Security Fundamentals............................................3
CIT 184 Attacks and Exploits..............................................3
CRJ 220 Introduction to Computer Forensics for Criminal Justice..3
Total .................................................................27
Broadcast Television Production

The Broadcast Television Production Certificate program provides students with a hands-on introduction to the practice of video production and a comprehensive understanding of professional broadcasting in the United States. Students will be required to read, write, and reflect about concepts such as the role of the media in our society, history of broadcasting in the United States, and different job positions available in the field of broadcasting. Students will also learn all aspects of the television production process from conception to the completed program. Students will develop skills in a range of areas including script preparation, camera operation, directing, lighting, and editing. In addition to an understanding of the elements of television production, graduates will have a greater understanding of the collaborative process through creative problem solving, and critical thinking. Students will need to achieve a “C” or better in each class to remain in the program.

Certificate

Broadcast Television Production – 1001053189
(Offered at MYC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMS 105</td>
<td>Multi-Media Production I</td>
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<tr>
<td>CMS 141</td>
<td>Communications Practicum</td>
<td>4</td>
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<tr>
<td>CMS 155</td>
<td>Introduction to Broadcasting</td>
<td>3</td>
</tr>
<tr>
<td>CMS 266</td>
<td>Basic Television Production</td>
<td>3</td>
</tr>
<tr>
<td>COM 249</td>
<td>Mass Media and Mass Culture</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Building Controls Technician

The Building Controls Technician Certificate is designed to prepare graduates for a career in the building controls field. The curriculum provides a background in electricity and HVAC technologies, and a hands-on experience in networked building control systems. Graduates will have an understanding of the importance of optimizing and maintaining building control systems in relation to sustainability and economic benefit.

Building Controls Technician – 4604013099

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 100</td>
<td>Refrigeration Fundamentals</td>
<td>3</td>
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<tr>
<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
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<tr>
<td>ACR 102</td>
<td>HVAC Electricity</td>
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<tr>
<td>ACR 103</td>
<td>HVAC Electricity Lab</td>
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<tr>
<td>CRA 230</td>
<td>Building Controls I</td>
<td>5</td>
</tr>
<tr>
<td>CRA 232</td>
<td>Building Controls II</td>
<td>5</td>
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<tr>
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<td>Total</td>
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</table>

Technical Electives (Must complete 10 credit hours from the list below.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 206</td>
<td>Boilers</td>
<td>5</td>
</tr>
<tr>
<td>ACR 207</td>
<td>Commercial HVAC Systems</td>
<td>5</td>
</tr>
<tr>
<td>ACR 208</td>
<td>Chillers</td>
<td>4</td>
</tr>
<tr>
<td>Other Technical Electives approved by the Program Coordinator</td>
<td>3-10</td>
<td></td>
</tr>
</tbody>
</table>

Business Studies

Four programs are offered under the broader heading of Business Studies. They are Administrative Office Technology, Business Administration Systems, Medical Information Technology, and Supply Chain Management.

Administrative Office Technology

The Administrative Office Technology program is an integrated curriculum, which prepares graduates at the certificate, diploma, and associate degree level. The Administrative Office Technology program prepares students to work in an office environment of people, process, and technologies. Job titles may include Administrative Assistant, Office Assistant, Office Manager, and Financial Assistant. These personnel use a variety of office technology and computer-based applications (word processing, electronic mail, desktop publishing, graphics, database, and spreadsheet). They support and help facilitate accurate communication and information exchange to internal and external customers on a timely basis. Technical courses combined with general education courses prepare students for today’s workforce and provide a basis for lifelong learning, a necessity for the workforce of the future. Students select an area of specialty from the following tracks: financial assistant, administrative, desktop publishing, and legal. Program graduates are employed in professional office, education, government, businesses, and industries. Graduates may choose to sit for the Certified Professional Secretary Examination or Certified Administrative Professional Examination or Microsoft Office Specialists Certifications.

Progression in the Administrative Office Technology program is contingent upon achievement of a grade of “C” or better in all OST courses.

Associate in Applied Science

Administrative Office Technology – 5204027039
(Offered at BLC, ELC, JFC, HPC, MYC, OWC)

<table>
<thead>
<tr>
<th>General Education</th>
<th>Credits</th>
<th>Technical Core</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
<td>OST 105</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105 Business Mathematics OR</td>
<td>3</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110 Applied Mathematics OR</td>
<td>3</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>Higher Level Quantitative Reasoning Course</td>
<td>3</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
<td>Advanced Word Processing Application</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications Course</td>
<td>3</td>
<td>Software Integration</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences Course</td>
<td>3-4</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences Course***</td>
<td>3</td>
<td>Office Management</td>
<td>3</td>
</tr>
<tr>
<td>General Education Credit Hours</td>
<td>18-19</td>
<td>Technical Core Credit Hours</td>
<td>24</td>
</tr>
</tbody>
</table>

***Association of Collegiate Business Schools and Programs (ACBSP) accredited colleges must require Economics.
Choose two courses (6 credit hours) from the following list:

- BAS 160 Introduction to Business
- ENG 102 Writing II
- BAS 120 Personal Finance
- OST 255 Introduction to Business Graphics
- OST 150 Transcription and Office Technology
- OST 108 Editing Skills for the Office Professional
- OST 272 Presentation Graphics
- OST 250 Advanced Desktop Publishing
- Elective course approved by Program Coordinator

Total Administrative Track Credit Hour: 18

Total Credit Hours: 60-61

Desktop Publishing Track - 520402704
(Offered at BLC)

Choose two courses (6 credit hours) from the following list:

- OST 130 Typography
- OST 215 Office Procedures
- OST 225 Introduction to Desktop Publishing
- OST 250 Advanced Desktop Publishing
- OST 255 Introduction to Business Graphics
- OST 272 Presentation Graphics
- OST 220 Administrative Office Simulation OR
- OST 295 Administrative Office Technology Internship OR
- COE 199 Cooperative Education

Total Desktop Publishing Track Credit Hours: 20-21

Total Credit Hours: 62-64

Financial Assistant Track - 520402703
(Offered at BLC)

Choose two courses (6 hours) from the following list:

- ACT 101 Fundamentals of Accounting I OR
- ACT 102 Fundamentals of Accounting II OR
- ACT 279 Computerized Accounting Systems
- OST 295 Administrative Office Technology Internship OR
- COE 199 Cooperative Education

Total Financial Assistant Track Credit Hours: 18

Total Credit Hours: 60-61

Legal Administrative Track - 520402705
(Offered at BLC)

Choose two courses (6 hours) from the following list:

- ACT 101 Fundamentals of Accounting I OR
- BAS 267 Higher Level Accounting
- BAS 120 Personal Finance
- OST 221 Legal Office Simulations
- MIT 103 Medical Office Terminology OR
- CLA 131 Medical Terminology from Greek and Latin OR

Total Legal Administrative Assistant Track Credit Hours: 18

Total Credit Hours: 60-61

Diplomas

Administrative Assistant - 5204024019
(Offered at BLC, BSC, ELC, JFC, MYC)

Available Completely Online

General Education
- OST 108 Editing Skills for the Office Professional
- ENG 101 Writing I
- OST 213 Business Calculations for the Office Professional
- MAT 105 Business Mathematics OR
- ACT 101 Fundamentals of Accounting I OR
- MAT 105 Business Mathematics OR
- Higher Level Quantitative Reasoning Course

Total General Education: 6

Technical Courses
- OST 105 Introduction to Information Systems
- ACT 101 Fundamentals of Accounting I OR
- ACT 110 Document Formatting and Word Processing
- OST 160 Records and Database Management
- OST 210 Advanced Word Processing Applications
- OST 215 Office Procedures
- OST 225 Introduction to Desktop Publishing
- OST 235 Business Communications Technology
- OST 240 Software Integration
- OST 295 Administrative Office Technology Internship OR
- COE 199 Cooperative Education

Total Technical Hours: 35-36

Total Credit Hours: 41-42

Desktop Publishing Specialist - 5204024029
(Offered at BLC)

Available Completely Online

General Education
- OST 108 Editing Skills for the Office Professional
- ENG 101 Writing I
- OST 213 Business Calculations for the Office Professional
- MAT 105 Business Mathematics OR
- ACT 101 Fundamentals of Accounting I OR
- MAT 105 Business Mathematics OR
- Higher Level Quantitative Reasoning Course

Total General Education: 6
<table>
<thead>
<tr>
<th>Technical Courses</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
</tr>
<tr>
<td>OST 130</td>
<td>Typography</td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Applications</td>
</tr>
<tr>
<td>OST 215</td>
<td>Office Procedures</td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communication Technology</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration</td>
</tr>
<tr>
<td>OST 250</td>
<td>Advanced Desktop Publishing</td>
</tr>
<tr>
<td>OST 255</td>
<td>Introduction to Business Graphics</td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
</tr>
<tr>
<td>OST 220</td>
<td>Administrative Office Simulation OR</td>
</tr>
<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
</tr>
</tbody>
</table>

**Total Technical Hours**: 38-39

**Total Credit Hours**: 44-45

---

**Financial Assistant - 5204024049**
*(Offered at BLC, BSC, ELC, JFC)*

*Available Completely Online*

**General Education**

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 108</td>
</tr>
<tr>
<td>ENG 101</td>
</tr>
<tr>
<td>OST 213</td>
</tr>
<tr>
<td>MAT 105</td>
</tr>
<tr>
<td>Higher Level Quantitative Reasoning Course</td>
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</table>

**Total General Education**: 6

---

**Technical Courses**

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>OST 105</td>
</tr>
<tr>
<td>ACT 101</td>
</tr>
<tr>
<td>ACT 102</td>
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<tr>
<td>Higher Level Accounting Course</td>
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<td>ACT 279</td>
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<td>OST 110</td>
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<tr>
<td>OST 295</td>
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<tr>
<td>COE 199</td>
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</table>

**Choose two courses (6 hours) from the following list:**

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<th>Course</th>
</tr>
</thead>
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<td>BAS 160</td>
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<tr>
<td>ENG 102</td>
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<tr>
<td>BAS 120</td>
</tr>
<tr>
<td>OST 255</td>
</tr>
<tr>
<td>OST 272</td>
</tr>
<tr>
<td>OST 250</td>
</tr>
</tbody>
</table>

**Total Technical Hours**: 32-33

**Total Credit Hours**: 38-39

---

**Legal Office Assistant - 5204024059**
*(Offered at BLC)*

**General Education**

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 108</td>
</tr>
<tr>
<td>ENG 101</td>
</tr>
<tr>
<td>BAS 120</td>
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<tr>
<td>Higher Level Quantitative Reasoning Course</td>
</tr>
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</table>

**Total General Education**: 6

---

**Technical Courses**

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 105</td>
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<td>BAS 267</td>
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<tr>
<td>OST 295</td>
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<tr>
<td>COE 199</td>
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**Choose one course (3 hours) from the following:**

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<tr>
<td>BAS 120</td>
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<td>OST 255</td>
</tr>
<tr>
<td>OST 108</td>
</tr>
<tr>
<td>OST 272</td>
</tr>
<tr>
<td>OST 250</td>
</tr>
</tbody>
</table>

**Total Technical Hours**: 36

**Total Credit Hours**: 42

---

**Office Assistant - 5204024039**
*(Offered at BLC, BSC, ELC, JFC, MYC)*

*Available Completely Online*

**Technical Courses**

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 105</td>
</tr>
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<td>OST 160</td>
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<td>OST 210</td>
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<tr>
<td>OST 295</td>
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<tr>
<td>COE 199</td>
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**Choose two courses (6 hours) from the following list:**

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<th>Course</th>
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<tbody>
<tr>
<td>BAS 160</td>
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<tr>
<td>BAS 120</td>
</tr>
<tr>
<td>OST 255</td>
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<tr>
<td>OST 108</td>
</tr>
<tr>
<td>OST 272</td>
</tr>
<tr>
<td>OST 250</td>
</tr>
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**Total Technical Hours**: 30

**Total Credit Hours**: 36
Certificates

Administrative - 5204023039
(Offered at BLC, BSC, HPC, JFC, MYC, OWC)
Available Completely Online

<table>
<thead>
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<th>Course Title</th>
<th>Credit Hours</th>
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<td>Editing Skills for the Office Professional OR</td>
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</tr>
<tr>
<td>ENG 101</td>
<td>Writing I .............................................</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems ................</td>
<td>3</td>
</tr>
<tr>
<td>OST 213</td>
<td>Business Calculations for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR ..................................</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 110</td>
<td>Higher Level Quantitative Reasoning Course ........</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 215</td>
<td>Office Procedures .......................................</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration .....................................</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology ..................</td>
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</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management ........................</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamental of Accounting I OR .......................</td>
<td>3</td>
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<tr>
<td>OST 150</td>
<td>Higher level Accounting Course ........................</td>
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<td></td>
<td>Transcription and Office Technology ..................</td>
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Basic Business Presentation - 5204023119
(Offered at BLC)
Available Completely Online

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<th>Course Title</th>
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<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems ................</td>
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<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I .............................................</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing ................</td>
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<tr>
<td>OST 255</td>
<td>Introduction to Business Graphics ..................</td>
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<tr>
<td>OST 272</td>
<td>Presentation Graphics ..................................</td>
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Data Entry Operator - 5204023079
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, MYC, OWC,WKC)
Available Completely Online

<table>
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<tr>
<td>OST 105</td>
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<td>Document Formatting and Word Processing ............</td>
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Desktop Publishing - 5204023099
(Offered at BLC, BSC)
Available Completely Online

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<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 213</td>
<td>Business Calculations for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR ..................................</td>
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</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems ................</td>
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<td>OST 110</td>
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<td>OST 130</td>
<td>Typography ...........................................</td>
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<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing ................</td>
<td>3</td>
</tr>
<tr>
<td>OST 255</td>
<td>Introduction to Business Graphics ..................</td>
<td>3</td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics ..................................</td>
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Financial Assistant Clerk - 5204023129
(Offered at BLC, BSC, HPC, JFC, OWC)
Available Completely Online

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<tr>
<th>Course Code</th>
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<th>Credit Hours</th>
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<tbody>
<tr>
<td>OST 105</td>
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<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR ....................</td>
<td>3</td>
</tr>
<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I .............................................</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing ............</td>
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<tr>
<td>OST 160</td>
<td>Records and Database Management ........................</td>
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<td>OST 213</td>
<td>Business Calculations for the Office Professional OR</td>
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<td>MAT 105</td>
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Financial Assistant Trainee - 5204023139
(Offered at BLC, BSC, HPC, JFC, OWC)
Available Completely Online

<table>
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<tr>
<td>OST 105</td>
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</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR ....................</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Higher Level Accounting Course ........................</td>
<td>(3)</td>
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<tr>
<td></td>
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Financial Record Keeper - 5204023069
(Offered at BLC, BSC, HPC, JFC, OWC)
Available Completely Online

<table>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems ................</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR ....................</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Higher Level Accounting Course ........................</td>
<td>(3)</td>
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<tr>
<td></td>
<td>Business Calculations for the Office Professional OR</td>
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Integrated Office Skills - 5204023059
(Offered at BLC, BSC, ELC, HPC, JFC, MYC, OWC,WKC)

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<th>Course Title</th>
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<tr>
<td>ENG 101</td>
<td>Writing I .............................................</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems ................</td>
<td>3</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing ............</td>
<td>3</td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management ........................</td>
<td>3</td>
</tr>
<tr>
<td>OST 213</td>
<td>Office Procedures .....................................</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics OR ..................................</td>
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Legal Receptionist - 5204023149
(Offered at BLC)

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<tr>
<td>OST 105</td>
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<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
<td>3</td>
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<tr>
<td>ENG 101</td>
<td>Writing I .............................................</td>
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</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing ............</td>
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<tr>
<td>OST 160</td>
<td>Records and Database Management ........................</td>
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Receptionist - 5204023089
(Offered at BLC, BSC, ELC, HPC, JFC, MYC, OWC,WKC)
Available Completely Online

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems ................</td>
<td>3</td>
</tr>
<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I .............................................</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management ........................</td>
<td>3</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing ............</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours</strong> ................................</td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>
The Business Administration Systems Program prepares students for a variety of careers in business. A core curriculum provides students with a foundation of knowledge applicable to any business career. The Business Administration Systems Program offers an Associate in Applied Science degree, diplomas and a variety of certificates in the areas of Accounting, Entrepreneurship, Financial Perspectives, Business, Hospitality Management, Human Resource Management, Industrial Supervisor, Informatics, Leadership, Management, Office Systems, Operations Management, Real Estate Management, Sales, Small Business Management, and Team Leadership.

The curriculum is designed for those who seek entry level jobs as well as for currently employed individuals wishing to enhance their skills. A student specializes by choosing from the following Tracks, Diplomas and Certificates:

The Accounting Track / Diploma / Certificate leads to careers in accounting including bookkeeper, accounting clerk, cost payroll clerk and positions using microcomputer-based systems.

The Business Management Track leads to careers for planning and managing people and other resources within organizations.

The Equine Business Management Track / Certificate provides the knowledge and skills students need to take advantage of various employment opportunities within the horse industry.

The Hospitality Management Track / Certificate prepares students for careers directing specific aspects of hospitality operations and for overall hospitality management.

The Human Resource Management Track / Certificate prepares students for entry-level positions in the human resource field and related occupations.


The Management Track / Certificate prepares the student with broad-based management knowledge and skills which lead to a variety of positions in organizations.

The Marketing and Retailing Track prepares for careers in sales, merchandising management, buying, department supervising, or retail management.

The Office Systems Track / Diploma / Certificate prepares the student with a broad base of knowledge and skills needed for a variety of positions in an office.

The Real Estate Management Track / Certificate leads to a career in real estate which may include sales, finance, counseling, development, marketing analysis, valuation, and/or property management.

The Organizational Leadership Diploma curriculum is designed to prepare students to manage a department or to become team leaders in team-based or self-managed organizations.

The Small Business Management Diploma / Certificate curricula is designed to prepare students for the position of entrepreneur and business owner and offers the prospective business owner the fundamentals of starting and operating a business.

The Accounting Recordkeeping Specialist Certificate prepares students for entry level employment as a bookkeeper.

The Advanced Business Administration Certificate is designed to be a building block to complete the Associate in Applied Science Degree, Business Administration Core courses.

The Business Certificate prepares the student for positions in supervision, management and general business.

The Business Transfer Certificate is designed to provide the business transfer student an exit point by offering business preparation courses that will transfer to a four-year institution.

The Entrepreneurship Certificate is focused on providing foundational business knowledge necessary to turn a project, idea, product or service into a business venture. Certificate graduates will learn how to prepare a business plan, identify sources of venture and operating capital, gain product development knowledge, learn methods of marketing their idea or business, learn how to read and understand financial statements, and gain personal and organization leadership qualities that will provide business tools to new or current entrepreneurs.

The Financial Perspectives Certificate prepares the student for entry-level positions in accounting, financial services and small business management.

The Industrial Supervisor certificate prepares the student in the field of industrial front-line supervision.

The Leadership Certificate enables the student to qualify for leadership positions, work effectively in teams, lead problem solving work groups, understand the conflict resolution processes and plan effectively.

The Operations Management Certificate provides students with the knowledge and skills needed to effectively function as first-line supervisors in an operations environment whether in distribution, services, or manufacturing. It will also increase the understanding of the operations function for non-operations students who will be working in a distribution, services or manufacturing organization.

The Payroll Accounting Specialist Certificate prepares the student for entry level work in payroll processing.

The Sales Certificate prepares the student for a career in sales.

The Supervisory Management Certificate prepares the student in the field of front-line supervision.

The Team Leadership Certificate prepares the student for a career in team leadership, supervision and/or management in a variety of different organizations. Modules are available.

The Supervisory Management Certificate prepares the student in the field of front-line supervision.

**Associate in Applied Science**

**Business Administration Systems - 5202017129**

(Offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

**General Education:**

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<thead>
<tr>
<th>Course</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO</td>
<td>Any Economics Course</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>3</td>
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### Business Administration Systems Tracks

#### Accounting Track – 520201701

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, MDC, MYC, OWC, SKY, SMC, WKC)  
Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
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<tr>
<td>ACT 279 Computerized Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACT 281 Individual Taxation</td>
<td>3</td>
</tr>
<tr>
<td>ACT 286 Financial Accounting Topics</td>
<td>3</td>
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<tr>
<td>Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.</td>
<td></td>
</tr>
<tr>
<td>ACT 196 Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 277 Managerial Accounting Topics</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212 Introduction to Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>ACT 290 Selected Topics in Accounting (Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>ACT 295 Corporate and Partnership Taxation</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120 Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>CIT 234 Advanced Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>CIT 236 Advanced Data Organization</td>
<td>3</td>
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<tr>
<td>COE 199 Cooperative Education: (Business Administration) OR</td>
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<tr>
<td>BAS 280 Business Internship</td>
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#### Equine Business Management Track – 520201718

(Offered at BLC, OWC)

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<tr>
<td>EQS 110 Basic Equine Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103 Racehorse Care</td>
<td>1</td>
</tr>
<tr>
<td>EQS 104 Racehorse Care Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>EQS 299 Equine Internship</td>
<td>(1-9)</td>
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<tr>
<td>EQS 118 Equine Bloodstock</td>
<td>3</td>
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<tr>
<td>EQM 120 Introduction to Commercial Breeding Practices</td>
<td>3</td>
</tr>
<tr>
<td>EQS 130 Introduction to the Racing Industry</td>
<td>3</td>
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<tr>
<td>EQS 240 Equine Legal and Business Principles</td>
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#### Hospitality Management Track – 520201703

(Offered at BSC, SMC, WKC)

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<tbody>
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<tr>
<td>HOS 100 Introduction to Hospitality</td>
<td>3</td>
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<tr>
<td>CUL 100 Culinary Arts Profession</td>
<td>2</td>
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<tr>
<td>HOS 282 Tourism Marketing</td>
<td>3</td>
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<tr>
<td>Choose 9 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses (HOS, CUL, &amp; BAS) as approved by the Business Administration Systems Program Coordinator.</td>
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</tr>
<tr>
<td>BAS 200 Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274 Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290 Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>COE 199 Cooperative Education: Business Administration OR</td>
<td>1-3</td>
</tr>
<tr>
<td>BAS 280 Business Internship</td>
<td>(1-3)</td>
</tr>
<tr>
<td>CUL 200 Sanitation &amp; Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 105 Applied Fundamental of the Culinary Arts Profession</td>
<td>2</td>
</tr>
<tr>
<td>CUL 280 Cost &amp; Control</td>
<td>3</td>
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<tr>
<td>HOS 160 Security for the Hospitality Industry</td>
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<tr>
<td>HOS 200 Cultural Heritage Tourism</td>
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</tr>
<tr>
<td>HOS 210 Front Office Management</td>
<td>3</td>
</tr>
<tr>
<td>HOS 220 Housekeeping &amp; Maintenance Management</td>
<td>3</td>
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<td>CUL 270 Human Relations Management</td>
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#### Business Management Track – 520201717

(Offered at BLC, HZC, HEC, OWC)

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<tbody>
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<tr>
<td>MGT 200 Small Business Management OR</td>
<td>3</td>
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<tr>
<td>MGT 256 Operations Management</td>
<td>(3)</td>
</tr>
<tr>
<td>MGT 274 Human Resource Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT 287 Supervisory Management</td>
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</tr>
<tr>
<td>MGT 292 Strategic Management</td>
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<tr>
<td>ENG 203 Business Writing</td>
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<td>MGT 101 Quality Management Principles</td>
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<td>Choose a total of 3 hours from the following:</td>
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<tr>
<td>BAS 120 Personal Finance</td>
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<td>MGT 200 Small Business Management</td>
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<tr>
<td>MGT 240 Business Ethics and Self-Management</td>
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<tr>
<td>MGT 256 Operations Management</td>
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<tr>
<td>MGT 258 Project Management</td>
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<tr>
<td>MGT 274 Human Resource Management</td>
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<tr>
<td>MGT 287 Supervisory Management</td>
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<td>MGT 288 Self Management</td>
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<tr>
<td>MGT 292 Supervisory Management</td>
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<td>MKT 155 Personal Selling</td>
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<tr>
<td>MKT 290 Advertising and Promotion</td>
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<tr>
<td>MKT 291 Retail Management</td>
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</tr>
<tr>
<td>MKT 293 Buying and Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>MKT 299 Selected Topics in Business Management: (Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>MKT 299 Selected Topics in Marketing: (Topic)</td>
<td>1-3</td>
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<td>COE 199 Cooperative Education</td>
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<td>REA 120 Real Estate Marketing</td>
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<td>MA 123 Elementary Calculus</td>
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<td>STA 291 Statistical Methods</td>
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<td>PSY 110 General Psychology OR</td>
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**Note:** Students in this track must take ENG 102, MAT 150 or higher quantitative reasoning and ECO 201 or ECO 202 as part of the core.
Human Resource Management Track - 520201715
(Offered at BLC, ELC, HEC, MDC, SKY, WKC)
Available Completely Online

**Required:**
- BAS 274 Human Resource Management ........................................ 3
- BAS 287 Supervisory Management .................................................. 3
- ACT 196 Payroll Accounting ............................................................ 3

Choose 9 hours (not duplicated from the core) from the following Approved Technical Courses with no more than 3 credit hours from IFM courses to count towards graduation:
- BAS 280 Business Internship OR .................................................. 1-4
- COE 199 Cooperative Education ................................................... (1-4)
- BAS 284 Applied Management Skills .............................................. 3
- BAS 288 Person & Organizational Leadership .................................... 3
- BAS 290 Management, Ethics & Society ........................................... 3
- BAS 299 Selected Topics in Management: (Track Topic) ...................... 1-3
- ISX 100 Industrial Safety ............................................................... 3
- OST 275 Office Management .......................................................... 3
- QMS 101 Introduction to Quality Systems ........................................ 3
- QMS 202 Performance Management ............................................... 3
- PSY 180 Human Relations .............................................................. 3
- IFM 111 Client-Side Informatics Software ....................................... 3
- IFM 128 Principles of Informatics .................................................... 3
- IFM 130 Business Data Communications ........................................ 3
- IFM 211 Collaboration Software ..................................................... 3
- IFM 215 Information Systems Analysis ............................................ 3
- IFM 225 Advanced Informatics ...................................................... 3
- IFM 235 Information Systems and Business Intelligence .................... 3

**Subtotal** 18

**Total Credits** 64-67

Informatics Track - 520201716
(Offered at GTW, HEC, MYC, SMC)

**Required:**
- IFM 128 Principles of Informatics ................................................ 3
- CIT 120 Computational Thinking .................................................. 3
- CIT 170 Database Design Fundamentals ......................................... 3
- IFM 215 Information Systems Analysis ........................................... 3

Choose 6 hours from the following Technical Courses. Students may select other courses (CIT & BAS) as approved by the Business Administration Systems Program Coordinator.
- IFM 130 Business Data Communication ........................................ 3
- IFM 235 Information Systems and Business Intelligence .................. 3
- MGT 258 Project Management ...................................................... 3
- IFM 111 Client-Side Informatics Software ...................................... 3
- IFM 225 Advanced Informatics .................................................... 3
- IFM 211 Collaboration Software ................................................... 3
- CIT 150 Internet Technologies ...................................................... 3

**Subtotal** 18

**Total Credits** 64-67

Management Track - 520201708
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMY, WKC)
Available Completely Online

**Required:**
- BAS 212 Introduction to Financial Management OR .......................... 3
- BAS 284 Applied Management Skills .............................................. 3

*Must be a General Education Quantitative Reasoning that is different from core Quantitative Reasoning selection.

Choose 11-12 hours (not duplicated from the core) from the following Management and/or Technical Courses with no more than 3 hours selected from Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

**Management Courses**
- BAS 170 Entrepreneurship ............................................................... 3
- BAS 200 Small Business Management ........................................... 3
- BAS 212 Introduction to Financial Management ............................... 3
- BAS 289 Operations Management .................................................. 3
- BAS 290 Management, Ethics & Society ......................................... 3
- BAS 296 International Business ...................................................... 3
- BAS 260 Professional Development and Protocol ............................. 2
- BAS 274 Human Resource Management ........................................... 3
- BAS 285 Problems in Marketing and Management .............................. 3
- BAS 287 Supervisory Management .................................................. 3
- BAS 288 Personal and Organizational Leadership .............................. 3
- BAS 291 Retail Management ........................................................... 3
- BAS 299 Selected Topics in Management: (Track Topic) .................... 1-3
- OST 275 Office Management .......................................................... 3
- QMS 101 Introduction to Quality Systems ........................................ 3
- QMS 201 Customer Service Improvement Skills ............................... 3
- QMS 202 Performance Management .............................................. 3

**Technical Courses:**
- ACT 196 Payroll Accounting .......................................................... 3
- ACT 177 Entrepreneurial Accounting ............................................... 3
- BAS 110 Worksheets in Business Applications ................................ 3
- BAS 120 Personal Finance ............................................................. 3
- CIT 234 Advanced Productivity Software ........................................ 3
- CIT 236 Advanced Data Organization ............................................. 3
- ENG 203 Business Writing OR ...................................................... (3)
- OST 235 Business Communications Technology ............................... (3)
- COE 199 Cooperative Education: (Business Administration) .......... 1-4
- OR
- BAS 280 Business Internship ........................................................... (1-4)
- ECO 150 Introduction to Global Economics ................................... 3
- ECO 201 Principles of Microeconomics OR .................................... 3
- ECO 202 Principles of Macroeconomics .......................................... (3)
- LOM 100 Introduction to Logistics Management ............................. 3
- CIT 155 Web Page Development .................................................... 3
- IFM 111 Client-Side Informatics Software ...................................... 3
- IFM 128 Principles of Informatics ................................................... 3
- IFM 130 Business Data Communications ......................................... 3
- IFM 211 Collaboration Software .................................................... 3
- IFM 215 Information Systems Analysis ........................................... 3
- IFM 225 Advanced Informatics ...................................................... 3
- IFM 235 Information Systems and Business Intelligence .................. 3

**Subtotal** 17-18

**Total Credits** 64-67

Marketing and Retailing Track - 520201719
(Offered at BLC, OWC)

**Note:** Students in this track must take ENG 102, MAT 150 or higher quantitative reasoning and ECO 201 or ECO 202 as part of the core.

**Required:**
- MKT 155 Personal Selling OR ....................................................... 3
- COE 199 Cooperative Education .................................................... (3)
- MKT 290 Advertising and Promotion ............................................. 3
- MKT 291 Retail Management .......................................................... 3
- MKT 293 Buying and Merchandising ............................................... 3
- ENG 203 Business Writing ............................................................ 3

Choose 3 hours from the following:
- BAS 120 Personal Finance ............................................................. 3
- MGT 200 Small Business Management ........................................... 3
- MGT 258 Project Management ....................................................... 3
- MGT 288 Self-Management ........................................................... 3
- MKT 299 Selected Topics in Marketing: (Topic) ............................... 1-3

103
COE 199 Cooperative Education .................................................. 1-4
ECO 202 Principles of Macroeconomics ..................................... 3

Subtotal 18

Total Credits 64-67

**Office Systems Track - 520201705**
*(Offered at BSC, GTW, HEC, HZC, MDC, MYC, SMC, WKC)*

Available Completely Online

**Required:**
OST 110 Document Formatting and Word Processing .................. 3
OST 210 Advanced Word Processing Applications..................... 3
OST 215 Office Procedures ..................................................... 3
OST 220 Administrative Office Simulations ................................ 3

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Office Systems Program Coordinator.

OST 130 Transcription and Office Technology............................ 3
OST 160 Records and Database Management ............................. 3
OST 216 Selected Topics in Office Systems: (Topic) ..................... 1-3
OST 235 Business Communications Technology ........................ 3
OST 295 Office Systems Technology Internship OR .................... 1-3
COE 199 Cooperative Education: (Business Technology) OR ......... (1-3)
BAS 280 Business Internship ............................................. (1-3)
OST 275 Office Management ................................................ 3

Subtotal 18

Total Credits 64-67

**Real Estate Management Track - 520201706**
*(Offered at BSC, BLC, ELC, WKC)*

**Required:**
REA 100 Real Estate Principles I ............................................. 3
REA 121 Appraising .............................................................. 3
REA 225 Real Estate Finance .................................................. 3
REA 230 Real Estate Law .................................................... 3

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Real Estate Program Coordinator.

REA 120 Real Estate Marketing .................................................. 3
REA 122 Construction and Blueprints ...................................... 3
REA 200 Real Estate Principles II ............................................. 3
REA 201 Property Management .................................................. 3
REA 202 Real Estate Investments I ............................................. 3
REA 203 Commercial and Industrial Property ............................ 3
REA 204 Land Planning and Development ................................ 3
REA 205 Farm Brokerage ...................................................... 3
REA 212 Real Estate Investments II .......................................... 3
REA 220 Real Estate Brokerage Management ............................. 3
COE 199 Cooperative Education: (Business Administration) ....... (1-4)

BAS 280 Business Internship ....................................... (1-4)

Subtotal 18

Total Credits 64-67

**Diplomas**

**Accounting - 5202014049**
*(Offered at BSC, GTW, HPC, MYC, OWC, SMC, WKC)*

**General Education:**

**Area 1 =**
ENG 101 Writing I .............................................................. 3
ENG 102 Writing II OR .......................................................... 3
ENG 203 Business Writing OR ............................................. (3)
OST 235 Business CommunicationsTechnology ........................ (3)

Oral Communications ................................................. 3

Area 2 =
Quantitative Reasoning course ........................................... 3
(Excluding MAT 205, MAT 206, STA 200, STA 210)

General Education Subtotal 12

**Required Technical:**

Corresponding Technical Course: (Offered at BSC, GTW, HEC, HZC, MDC, MYC, SMC, WKC)

CTT 130 Introduction to Computers OR ..................................... 3
OST 240 Introduction to Information Systems ............................. (3)
ACC 201* Financial Accounting OR ........................................ 3
ACT 101 Fundamentals of Accounting ILAND .................................. (3)
ACT 102 Fundamentals of Accounting II .................................. (3)
ACT 279 Computerized Accounting Systems ............................. 3
COE 199 Cooperative Education OR ......................................... 3
BAS 280 Business Internship ............................................. (3)

Additional accounting hours approved by Program Coordinator .................. 6

Required Technical Subtotal 18-24

**Related Courses (Choose 6 credit hours from the following list with Program Coordinator Approval):**

BAS 120 Personal Finance ..................................................... 3
BAS 267 Introduction to Business Law ..................................... 3
BAS 283 Principles of Management ......................................... 3
BAS 200 Small Business Management ..................................... 3
BAS 260 Professional Development and Protocol ....................... 2
Economics course .............................................................. 3
Quantitative Reasoning course ............................................. 3

Total Credits 39-45

*No course can be used to fulfill more than one requirement.

**Informatics - 5202014059**
*(Offered at HEC, MYC, SMC)*

**General Education:**

**Area 1 =**
ENG 101 Writing I .............................................................. 3

**Area 2 =**
ECO Any Economics Course ................................................ 3

General Education Subtotal 6

**Required Technical:**

CTT 105 Introduction to Computers OR ..................................... 3
OST 105 Introduction to Information Systems ............................. (3)
BAS 160 Introduction to Business .......................................... 3
BAS 283 Principles of Management ......................................... 3
BAS 282 Principles of Marketing ............................................ 3
ACC 201* Financial Accounting OR ........................................ 3
ACT 101 Fundamentals of Accounting ILAND .................................. (3)
ACT 102 Fundamentals of Accounting II .................................. (3)
IFM 128 Principles of Informatics .......................................... 3
CTT 170 Database Design Fundamentals ................................... 3
IFM 215 Information Systems Analysis .................................... 3
BAS 280 Business Internship OR ............................................ 1-3
COE 199 Cooperative Education ............................................. (1-4)

Required Technical Subtotal 25-31

**Related Courses (Choose 6 hours from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator):**

IFM 130 Business Data Communication ................................... 3
IFM 235 Information Systems and Business Intelligence .............. 3
MGT 258 Project Management ............................................... 3
IFM 111 Client-Side Informatics Software ................................ 3
IFM 225 Advanced Informatics ............................................. 3
IFM 211 Collaboration Software ............................................ 3
CTT 150 Internet Technologies ............................................... 3
CTT 120 Computational Thinking .......................................... 3

Approved Technical Subtotal 6

Total Credits 40-45

No course can be used to fulfill more than one requirement.
Office Systems - 5202014019
(Offered at BSC, HZC, GTW, MDC, SMC, WKC)

General Education:

Area 1 =
ENG 101 Writing I OR ................................................. 3
COM 181 Basic Public Speaking OR .......................................... (3)
COM 252 Introduction to Interpersonal Communication .............. (3)

Area 2 =
ECO Any Economics Course ................................................. 3

General Education Subtotal 6

Required Technical:
CTT 105 Introduction to Computers OR ..................................... 3
OST 105 Introduction to Information Systems .......................... (3)
ACC 201 Financial Accounting OR .......................................... 3
ACT 101 Fundamentals of Accounting I AND .............................. (3)
ACT 102 Fundamentals of Accounting II .................................... (3)
BAS 160 Introduction to Business ............................................. 3
OST 110 Document Formatting and Word Processing ................. 3
OST 210 Advanced Word Processing Applications .................... 3
OST 213 Business Calculations for the Office Professional ......... 3
OST 215 Office Procedures ..................................................... 3
OST 220 Administrative Office Simulations ............................... 3
CTT 130 Productivity Software OR ........................................... 3
OST 240 Software Integration .................................................. (3)
BAS 280 Business Internship OR ............................................. 1-4
COE 199 Cooperative Education .............................................. (1-3)

Required Technical Subtotal 28-34

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Office Systems Program Coordinator.
OST 150 Transcription and Office Technology ........................... 3
OST 160 Records and Database Management .......................... 3
OST 216 Selected Topics in Office Systems: (Topic) ................. 1-3
OST 235 Business Communications Technology ................. 3
OST 295 Office Systems Technology Internship .................... 1-3
OST 275 Office Management .................................................. 3

Approved Technical Courses .................................................. 6
Total Credits 40-46

Organizational Leadership - 5202014029
(Offered at BSC, ELC, HZC, JFC, MDC, OWC, SKY, SMC, WKC)
Available Completely Online

General Education:

Area 1 =
ENG 101 Writing I OR ..................................................... 3
COM 181 Basic Public Speaking OR ......................................... (3)
COM 252 Introduction to Interpersonal Communication ............. (3)

Area 2 =
ECO Any Economics Course ................................................. 3

General Education Subtotal 6

Required Technical:
CTT 105 Introduction to Computers OR ..................................... 3
OST 105 Introduction to Information Systems .......................... (3)
BAS 160 Introduction to Business OR ....................................... (3)
BAS 170 Entrepreneurship* .................................................. (3)
BAS 200 Small Business Management .................................. (3)
BAS 212 Introduction to Financial Management * OR ............... 3
BAS 237 Second Quantitative Reasoning Course* .................... (3)
BAS 267 Introduction to Business Law .................................. 3
BAS 282 Principles of Marketing ............................................ 3
BAS 283 Principles of Management ......................................... 3
ACC 201 Financial Accounting OR .......................................... 3
ACT 177 Entrepreneurial Accounting OR ................................ (3)
ACT 101 Fundamentals of Accounting I AND .............................. (3)
ACT 102 Fundamentals of Accounting II ................................... (3)
BAS 280 Business Internship OR ............................................. 1-3
COE 199 Cooperative Education .............................................. (1-4)

Required Technical Subtotal 25-31

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.
BAS 212 Introduction to Financial Management ......................... 3
BAS 170 Entrepreneurship* .................................................. 3
BAS 274 Human Resource Management .................................. 3
BAS 288 Personal and Organizational Leadership .................... 3
BAS 290 Management, Ethics & Society ................................... 3
ACT 196 Payroll Accounting .................................................. 3
ACC 202 Managerial Accounting ............................................ 3
CTT 130 Productivity Software OR ........................................... 3
OST 240 Software Integration .................................................. (3)
QMS 101 Introduction to Quality Systems .................................. 3
QMS 201 Customer Service Improvement Skills .................... 3

Approved Technical Courses 6
Total Credits 37-43

Small Business Management - 5202014039
(Offered at BSC, ELC, HZC, JFC, MDC, SKY, SMC, WKC)
Available Completely Online

General Education:

Area 1 =
ENG 101 Writing I OR ..................................................... 3
COM 181 Basic Public Speaking OR ......................................... (3)
COM 252 Introduction to Interpersonal Communication ............. (3)

Area 2 =
ECO Any Economics Course ................................................. 3

General Education Subtotal 6

Required Technical:
CTT 105 Introduction to Computers OR ..................................... 3
OST 105 Introduction to Information Systems .......................... (3)
BAS 160 Introduction to Business OR ....................................... (3)
ACT 101 Fundamentals of Accounting I AND .............................. (3)
ACT 102 Fundamentals of Accounting II ................................... (3)
BAS 280 Business Internship OR ............................................. 1-3
COE 199 Cooperative Education .............................................. (1-4)

Required Technical Subtotal 22-28

Choose 11-12 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.
BAS 212 Introduction to Financial Management ......................... 3
BAS 260 Professional Development and Protocol ...................... 2
BAS 267 Introduction to Business Law .................................. 2
BAS 274 Human Resource Management .................................. 3
BAS 282 Principles of Marketing ............................................ 3
BAS 290 Management, Ethics & Society ................................... 3
OST 275 Office Management .................................................. 3
ACC 202 Managerial Accounting ............................................ 3
ACT 130 Productivity Software OR ........................................... 3
OST 240 Software Integration .................................................. (3)
QMS 101 Introduction to Quality Systems .................................. 3
QMS 201 Customer Service Improvement Skills .................... 3

Approved Technical Courses 11-12
Total Credits 39-46

*Not allowed as an Approved Technical Course if course has been taken as a required course.
### Certificates

#### Accounting - 5202013119
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
**Available Completely Online**

**Required:**
- ACC 201 Financial Accounting OR .................................................. 3
- ACT 101 Fundamentals of Accounting I AND ........................................ (3)
- ACT 102 Fundamentals of Accounting II ............................................. (3)
- ACC 202 Managerial Accounting ........................................................ 3

Choose 12 hours from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

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<td>ACT 277</td>
<td>Managerial Accounting Topics</td>
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<td>ACT 279</td>
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<td>ACT 281</td>
<td>Individual Taxation</td>
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<td>ACT 286</td>
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<td>ACT 290</td>
<td>Selected Topics in Accounting (Topic)</td>
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<td>ACT 295</td>
<td>Corporate and Partnership Taxation</td>
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<td>BAS 120</td>
<td>Personal Finance</td>
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<td>BAS 212</td>
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<td>CIT 234</td>
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<td>BAS 280</td>
<td>Business Internship</td>
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**Total Credits**: 18-21

**Accounting Recordkeeping Specialist - 5202013429**
(Offered at ASC, BSC, ELC, HEC, OWC, MDC, MYC, SEC, SKY, WKC)

**Required:**
- ACC 201 Financial Accounting OR .................................................. 3
- ACT 251 Fundamentals of Accounting I AND ...................................... (3)
- ACT 102 Fundamentals of Accounting II ............................................. (3)
- ACT 196 Payroll Accounting .............................................................. 3
- ACT 279 Computerized Accounting Systems ......................................... 3
- ACT 281 Individual Taxation ............................................................... 3
- ACT 284 Productivity Software OR ....................................................... 3
- CIT 130 Business Internship ................................................................ 3
- CIT 130 Business Internship ................................................................ 3
- CIT 130 Business Internship ................................................................ 3
- CIT 130 Business Internship ................................................................ 3
- CIT 234 Advanced Productivity Software ............................................... 3
- CIT 236 Advanced Data Organization .................................................... 3
- COE 199 Cooperative Education: (Business Administration) OR .......... 3
- BAS 280 Business Internship ................................................................ 3

**Total Credits**: 18-21

**Advanced Business Administration - 5202013129**
(Offered at ASC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
**Available Completely Online**

**Required:**
- BAS 282 Principles of Marketing ......................................................... 3
- BAS 283 Principles of Management ....................................................... 3
- BAS 267 Introduction to Business Law .................................................. 3
- BAS 284 Applied Management Skills .................................................... 3
- CIT 130 Productivity Software OR ....................................................... 3
- CIT 240 Software Integration ................................................................ 3

**Total Credits**: 15

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</table>
**Available Completely Online**

**Required:**
- ACC 201 Financial Accounting .......................................................... 3
- ACC 202 Managerial Accounting ......................................................... 3
- ECO 201 Principles of Microeconomics ............................................... 3
- ECO 202 Principles of Macroeconomics .............................................. 3
- STA 220 Statistics .............................................................................. 3

**Total Credits**: 15

**Entrepreneurship – 5202013379**
(Offered at ASC, BSC, ELC, HEC, HPC, MDC, MYC, OWC, SEC, SKY, WKC)

**Required:**
- ACC 201 Financial Accounting OR .................................................. 3
- ACT 177 Entrepreneurial Accounting ................................................... (3)
- BAS 170 Entrepreneurship .................................................................. 3
- BAS 282 Principles of Marketing ......................................................... 3
- BAS 288 Personal and Organizational Leadership ............................... 3

**Total Credits**: 12

**Equine Business Management – 5202013479**
(Offered at ELC, GTW, HEC, OWC)

**Required:**
- EQM 100 Introduction to Equine Studies ........................................... 3
- EQM 120 Introduction to Commercial Breeding .................................... 3
- EQM 140 Equine Business Management I .......................................... 2
- EQM 160 Introduction to Business ...................................................... 3
- EQM 240 Equine Business Management II ......................................... 2
- EQM 242 Equine Law .......................................................................... 3
- EQM 246 Current Trends in the Equine Industry .................................. 1
- PSY 110 General Psychology ............................................................. 3
- MGT 101 Quality Management Principles ........................................ 3

**Total Credits**: 23

**Financial Perspectives - 5202013159**
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SEC, SMC, WKC)
**Available Completely Online**

**Required:**
- ACC 201 Financial Accounting OR .................................................. 3
- ACT 101 Fundamentals of Accounting I AND ...................................... (3)
- ACT 102 Fundamentals of Accounting II ............................................. (3)
- BAS 160 Introduction to Business ...................................................... 3
- BAS 120 Personal Finance .................................................................. 3

**Total Credits**: 9-12

**General Business - 5202013169**
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
**Available Completely Online**

**Required:**
- BAS 160 Introduction to Business ...................................................... 3
- CIT 105 Introduction to Computers OR ............................................... (3)
- CIT 240 Software Integration ................................................................ 3
- CIT 105 Introduction to Information Systems ....................................... (3)
- ACT 101 Fundamentals of Accounting I OR ........................................ 3
- ACC 201 Financial Accounting .......................................................... 3
- ECO Any Economics Course .............................................................. 3

**Total Credits**: 12
Hospitality Management  - 5202013179  
*(Offered at BSC, HZC, SEC, SM, WKC)*

**Required:**
- HOS 100 Introduction to Hospitality ......................... 3
- CUL 100 Culinary Arts Profession ............................... 2
- HOS 282 Tourism Marketing ...................................... 3

**Choose 9 hours from the following Technical Courses:**

**Students may select other courses (HOS or CUL) as approved by the Business Administration Systems Program Coordinator.**
- BAS 200 Small Business Management ............................. 3
- BAS 274 Human Resource Management .......................... 3
- COE 199 Cooperative Education: Business Administration OR 1-3
- BAS 280 Business Internship OR ................................1-4
- BAS 290 Management, Ethics & Society ....................... 1-3
- CUL 100 Sanitation & Safety ..................................... 2
- CUL 105 Applied Fundamentals of the Culinary Arts Profession 2
- CUL 280 Cost & Control ........................................... 3
- HOS 160 Security for the Hospitality Industry .................. 3
- HOS 200 Cultural Heritage Tourism ............................... 3
- HOS 210 Front Office Operations & Management ................ 3
- HOS 220 Housekeeping & Maintenance Management ............ 3
- CUL 270 Human Relations Management ........................... 3

**Total Credits** 17

Human Resource Management  - 5202013359  
*(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, SEC, SKY, WKC)*

**Required:**
- BAS 274 Human Resource Management .......................... 3
- BAS 287 Supervisory Management ................................ 3
- ACT 196 Payroll Accounting ....................................... 3

**Choose 9 hours from the following Technical Courses:**

**Students may select other courses as approved by the Business Administration Systems Program Coordinator.**
- BAS 280 Business Internship OR ................................1-3
- COE 199 Cooperative Education: Business Administration OR 1-3
- ISX 100 Industrial Safety .......................................... 3
- BAS 284 Applied Management Skills ............................... 3
- BAS 288 Person & Organizational Leadership .................... 3
- BAS 290 Management, Ethics & Society ........................... 3
- BAS 299 Selected Topics in Management: (Track Topic) ........ 3
- QMS 286 Office Management ....................................... 1-3
- QMS 101 Introduction to Quality Systems ........................ 3
- QMS 201 Customer Service Improvement Skills ................... 3
- QMS 202 Performance Management ................................ 3
- PSY 180 Human Relations .......................................... 3
- IFM 128 Principles of Informatics .................................. 3
- IFM 130 Business Data Communications .......................... 3
- IFM 211 Collaboration Software .................................... 3
- IFM 215 Information System Analysis .............................. 3
- IFM 225 Advanced Informatics .................................... 3
- IFM 235 Information Systems and Business Intelligence ........ 3

**Total Credits** 18

Industrial Supervisor  - 5202013339  
*(Offered at ASC, HPC, SEC)*

**General Education:**
- ENG 101 Writing I .................................................. 3
- MAT 150 College Algebra .......................................... 3
- COM 181 Basic Public Speaking OR ................................. 3
- COM 252 Interpersonal Communications OR ....................... 3
- PSY 110 General Psychology ....................................... 3

**Required Technical:**
- BAS 287 Supervisory Management ................................ 3
- INDT 120 Industrial Safety ........................................... 3
- INDT 233 Statistical Process Control ............................... 3

- BAS 274 Human Resource Management .......................... 3
- CTT 105 Introduction to Computers OR .............................. 3
- OST 105 Introduction to Information Systems ..................... 3

**Choose 6 hours from the approved Technical Courses:**
- BAS 160 Introduction to Business ................................... 3
- INDT 220 Introduction to Industrial Psychology ................. 3
- ENV 101 Fundamentals of Environment Science .................. 1
- ENV 132 Environment Management .................................. 2
- INDT 250 Team Dynamics & Problem – Solving .................... 3

**Total Credits** 30

Informatics Fundamentals  - 5202013449  
*(Offered at HEC, MYC, SEC, SMC)*

- IFM 128 Principles of Informatics ................................. 3
- CTT 170 Database Design Fundamentals ......................... 3
- IFM 215 Information Systems Analysis ............................ 3

**Total Credits** 9

Informatics Business Analyst  - 5202013459  
*(Offered at HEC, MYC, SEC, SM)*

**Required:**
- Choose 6 hours from the following Courses.
- IFM 130 Business Data Communications .......................... 3
- IFM 235 Information Systems and Business Intelligence ........ 3
- IFM 111 Client-Side Informatics Software ........................ 3

**Total Credits** 6

Leadership  - 5202013199  
*(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OW, SEC, SKY, SM, WKC)*  
*Available Completely Online*

**Required:**
- BAS 288 Personal and Organizational Leadership ................ 3
- BAS 160 Introduction to Business ................................... 3
- ECO 110 Any Economics Course ..................................... 3
- COM 181 Basic Public Speaking OR ................................. 3
- COM 252 Introduction to Interpersonal Communication ........ 3

**Total Credits** 12

Management  - 5202013209  
*(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OW, SEC, SKY, SM, WKC)*  
*Available Completely Online*

**Required:**
- BAS 283 Principles of Management ................................ 3
- BAS 212 Introduction to Financial Management OR ............... 3
- ECO 211 Second Quantitative Reasoning Course from General Education not duplicative of core math .................... 3
- BAS 284 Applied Management Skills ................................ 3

**Choose 6 hours from the following Technical Courses:**

**Students may select other courses as approved by the Business Administration Systems Program Coordinator.**
- BAS 200 Small Business Management ............................. 3
- BAS 256 International Business ..................................... 3
- BAS 260 Professional Development & Protocol .................... 2
- BAS 274 Human Resource Management ........................... 3
- BAS 285 Problems in Marketing & Management ................... 3
- BAS 287 Supervisory Management ................................ 3
- BAS 288 Personal & Organizational Leadership .................... 3
- BAS 289 Operations Management .................................... 3
- BAS 290 Management, Ethics & Society ........................... 3
- BAS 291 Retail Management .......................................... 3
- BAS 299 Selected Topics in Management: (Track Topic) ........ 1-3
- QMS 286 Office Management ....................................... 1-3
- QMS 101 Introduction to Quality Systems ........................ 3
- QMS 202 Performance Management ................................ 3

**Total Credit Hours** 15
Office Systems - 5202013219
(Offered at BSC, GTW, HEC, HZC, MDC, SEC, SMC, WKC)

**Required:**
- OST 110 Document Formatting and Word Processing .................. 3
- OST 210 Advanced Word Processing Applications .................. 3
- OST 215 Office Procedures ........................................ 3
- OST 220 Administrative Office Simulations .................. 3

Choose 6 hours from the following Technical Courses.

Students may select other courses as approved by the Business Administration Systems Program Coordinator.

- OST 150 Transcription and Office Technology .................. 3
- OST 160 Records and Database Management .................. 3
- OST 216 Selected Topics in Office Systems: (Topic) ................. 1-3
- OST 235 Business Communications Technology .................. 3
- OST 295 Office Systems Technology Internship OR .................. 1-3
- COE 199 Cooperative Education: (Business/Technology) OR ...... (1-3)
- BAS 280 Business Internship ....................................... (1-4)
- OST 275 Office Management ........................................ 3

**Total Credits** 18

Operations Management - 5202013369
(Offered at BSC, GTW, HEC, HPC, MYC, SEC, WKC)

**Required:**
- BAS 160 Introduction to Business .................................. 3
- BAS 287 Supervisory Management OR .......................... 3
- BAS 288 Personal & Organizational Leadership OR ............... (3)
- QMS 101 Introduction to Quality Systems ..................... (3)
- BAS 289 Operations Management OR .................................. 3
- MFG 256 Production Management ................................... 3
- COM 181 Basic Public Speaking OR .................................. 3
- COM 252 Introduction to Interpersonal Skills ................. (3)

**Total Credits** 12

Payroll Accounting Specialist - 5202013439
(Offered at ASC, BSC, ELC, HEC, MDC, MYC, OWC, SEC, SKY, WKC)

**Required:**
- ACC 201 Financial Accounting OR................................. 3
- ACT 101 Fundamentals of Accounting I AND.................. (3)
- ACT 102 Fundamentals of Accounting II ......................... (3)
- ACT 196 Payroll Accounting ......................................... 3
- ACT 279 Computerized Accounting Systems .................. 3

**Total Credits** 9-12

Pre-Licensing Real Estate - 5202013239
(Offered at ASC, BLC, BSC, ELC, MDC, MYC, OWC, SEC, SMC, WKC)

**Required:**
- REA 100 Real Estate Principles I .................................. 3

Choose 3 hours from the following Technical Courses.

Students may select other courses as approved by the Business Administration Systems Program Coordinator.

- REA 120 Real Estate Marketing .................................. 3
- REA 200 Real Estate Principles II .................................. 3
- REA 225 Real Estate Finance ......................................... 3
- REA 230 Real Estate Law ........................................ 3

**Total Credits** 6

Real Estate Pre-Brokerage Management- 5202013489
(Offered at BLC, OWC, SEC)

**Required:**
- REA 100 Real Estate Principles I .................................. 3
- REA 220 Brokerage Management .................................. 3
- REA 230 Real Estate Law ........................................ 3

**Subtotal** 9

Choose 9 hours from the following list:

- REA 120 Real Estate Marketing .................................. 3
- REA 121 Appraising .................................................. 3
- REA 122 Construction and Blueprints .................................. 3
- REA 201 Property Management .................................. 3
- REA 202 Real Estate Investments I .................................. 3
- REA 225 Real Estate Finance ........................................ 3

**Subtotal** 9

Additional General Education Requirements

Choose 6 hours from the following:

- PSY 110 General Psychology ........................................... 3
- ECO 201 Principles of Microeconomics ....................... 3
- ACC 201 Financial Accounting ...................................... 3
- CIT 130 Productivity Software OR ....................... 3
- OST 240 Software Integration .......................................... (3)

**Subtotal** 6

Total Credits 24

Residential Real Estate - 5202013249
(Offered at BSC, ELC, MDC, MYC, OWC, SEC, SMC, WKC)

**Required:**
- REA 100 Real Estate Principles I .................................. 3
- REA 120 Real Estate Marketing .................................. 3

Choose 6 hours from the following Approved Technical Courses.

- REA 121 Appraising .................................................. 3
- REA 122 Construction and Blueprints .................................. 3
- REA 200 Real Estate Principles II .................................. 3
- REA 201 Property Management .................................. 3
- REA 225 Real Estate Finance ........................................ 3
- REA 230 Real Estate Law ........................................ 3

**Total Credits** 12

Sales - 5202013259
(Offered at BSC, ELC, GTW, MYC, OWC, SEC, SMC)

**Required:**
- BAS 155 Personal Selling .................................................. 3
- COM 181 Basic Public Speaking OR .................................. 3
- COM 252 Introduction to Interpersonal Communication ............... (3)

Choose 6 hours from the following Technical Courses.

Students may select other courses as approved by the Business Administration Systems Program Coordinator.

- BAS 291 Retail Management .................................................. 3
- CIT 155 Web Page Development ........................................... 3
- QMS 201 Customer Service Improvement Skills ....................... 3
- BAS 260 Professional Development and Protocol ....................... 2
- COE 199 Cooperative Education OR .................................. (1-3)
- BAS 280 Business Internship ................................ ............... (1-4)

**Total Credits** 12
Small Business Management - 5202013269
(Offered at ASC, BSC, ELC, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SMC,WKC)
Available Completely Online

Required:
BAS  160  Introduction to Business OR .......................... 3
BAS  170  Entrepreneurship .......................................... 3
BAS  200  Small Business Management .......................... 3
BAS  212  Introduction to Financial Management OR .......... 3
BAS  287  Supervisory Management OR .......................... 3
BAS  288  Personal & Organization Leadership ................ 3

Total Credits 18-21

Supervisory Management - 5202013279
(Offered at ASC, BSC, ELC, GTC, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
Available Completely Online

Required:
CIT  105  Introduction to Computers OR ....................... 3
OST  235  Business Communications Technology ............. 3
BAS  287  Supervisory Management .............................. 3
BAS  274  Human Resource Management ........................ 3

Choose 6 hours from the following Technical Courses.

18

Team Leadership - 5202013309
(Offered at BSC, ELC, HEC, JFC, MDC, MYC, OWC, SEC, SKY, WKC)
Available Completely Online

Required Courses:
OST  105  Introduction to Information Systems OR .......... 3
CIT  105  Introduction to Computers ............................ (3)
OST  235  Business Communication Technology OR ......... 3
COM  181  Basic Public Speaking OR ............................ (3)
COM  252  Interpersonal Communications ........................ (3)
BAS  287  Supervisory Management .............................. 3
BAS  288  Personal & Organization Leadership ................ 3

Total Credits 18

Medical Information Technology

Medical Information Technology graduates prepare medical records and reports, maintain paper and electronic files, order supplies, perform accounting procedures, work with medical insurance and coding, and receive patients in a variety of health care settings. Some of the degree tracks include Medical Administrative Assistant, Medical Insurance Cod- er, and Electronic Medical Records. Students enrolled in the degree or diploma programs are required to do an internship or capstone course.

Progression in the Medical Information Technology program is contingent upon achievement of a grade of “C” or better in each course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Medical Information Technology - 5107167019
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SKY, SMC,WKC)

General Education:
MAT  105  Business Math OR ................................. 3
MAT  110  Applied Mathematics OR ............................ (3)
MAT  150  College Algebra OR ................................. (3)
ENG  101  Writing I ............................................ 3
BIO  155  Basic Anatomy and Physiology with Laboratory** 4
MAT  150  College Algebra OR ................................. (3)
ENG  101  Writing I ............................................ 3
BIO  155  Basic Anatomy and Physiology with Laboratory** 4

Technical Core:
OST  105  Introduction to Information Systems OR .......... 3
CIT  105  Introduction to Computers ............................ (3)
OST  235  Business Communication Technology ............. 3
MIT  230  Medical Information Management .................. 3
OST  240  Software Integration OR ............................ 3
CIT  130  Productivity Software ............................... (3)
MIT  103  Medical Office Terminology OR .................... 3
AHS  115  Medical Terminology OR ............................ (3)
CLA  131  Medical Terminology from Greek and Latin ........ 3
MIT  104  Medical Insurance .................................. 3
MIT  217  Medical Office Procedures .......................... 3
MIT  224  Medical Practice Management ..................... 3
MIT  228  Electronic Medical Records ........................ 3
MIT  295  Medical Information Technology Capstone .......... 3

Total 30

Medical Administrative Track - 510716705
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SKY, SMC,WKC)
Available Completely Online

ACT  101  Fundamentals of Accounting I OR .................... 3
ACC  201  Financial Accounting I ............................... (3)
OST  225  Introduction to Desktop Publishing ................ 3
OST  235  Business Communications Technology ............. 3
OST  210  Advanced Word Processing Application ............ 3

Course Approved by Program Coordinator ..................... 3

Total 15

Total 64
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<td>Financial Accounting I</td>
<td>3</td>
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<td>MIT 204</td>
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**Medical Coding Track - 510716706**
*(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SMC, WKC)*

**Diplomas**

**Medical Administrative Assistant - 5107164019**
*(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, SKY, SMC, WKC)*

**General Education/Applied Academics**

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**Technical or Support Courses**

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<td>ACC 201</td>
<td>Financial Accounting I</td>
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<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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<td>OST 213</td>
<td>Business Calculation for Office Professionals OR</td>
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<td>MAT 105</td>
<td>Business Mathematics OR</td>
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### Hospital Admissions Specialist - 5107163029
(Offered at ASC, BLC, BSC, ELG, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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<td>MIT 240 Medical Office Procedures</td>
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<tr>
<td>MIT 103 Medical Office Terminology OR</td>
<td>3</td>
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<td>MIT 224 Medical Practice Management</td>
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<td>MIT 228 Electronic Medical Records</td>
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**Total 30**

### Medical Receptionist - 5107163110
(Offered at ASC, BLC, BSC, ELG, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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<td>CIT 105 Introduction to Computers</td>
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<tr>
<td>OST 110 Document Formatting and Word Processing</td>
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<td>MIT 230 Medical Information Management</td>
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<td>MIT 240 Medical Office Procedures</td>
<td>3</td>
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<tr>
<td>MIT 103 Medical Office Terminology OR</td>
<td>3</td>
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<td>MIT 104 Medical Insurance</td>
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**Total 15**

### Medical Coding - 5107163079
(Offered at ASC, BLC, BSC, ELG, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
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<td>MIT 104 Medical Insurance</td>
<td>3</td>
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<td>MIT 204 Advanced Medical Coding</td>
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<td>MIT 205 Advanced Medical Coding</td>
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**Total 22**

### Electronic Health Records Specialist – 5107163069
(Offered by ASC, BLC, BSC, ELG, HZC, MDC, MYC, OWC, SKY, SMC, WKC)

<table>
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<td>AHS 115 Medical Terminology OR</td>
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<td>MIT 104 Medical Insurance</td>
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<td>OST 110 Document Formatting and Word Processing</td>
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<td>MIT 217 Medical Office Procedures</td>
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<td>MIT 224 Medical Practice Management</td>
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### Medical Scribe – 5107163099
(Offered by ASC, BLC, BSC, ELG, HZC, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

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<td>OST 110 Document Formatting and Word Processing</td>
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<td>MIT 105 Introduction to Information Systems OR</td>
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**Total 28-30**

**Students can fulfill the Biology requirement with both BIO 137 and BIO 119.**

### Supply Chain Management

The Supply Chain Management AAS degree incorporates knowledge of the field of logistics, supply chain management, quality management, lean concepts and application, business and operations management, critical communication skills, and digital literacy required for successful employment in the logistics industry. The program will prepare students to perform functions in the modern logistics and supply chain management environment as well as give the preparation to obtain two national industry credentials (CLA and CLT) as a result.

The Supply Chain Specialist Certificate program prepares students for skilled entry-level positions in the field of Logistics. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Quality Technician Certificate program prepares students with quality management knowledge and strategic concepts of planning as a proactive catalyst for organizational and quality improvement in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Operations Certificate program provides students with knowledge in business, operations, and project management leading to a variety of positions in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.
Associate in Applied Science

Supply Chain Management – 5202037029
(Offered at GTW)

General Education
ENG 101 Writing I .................................................. 3
COM 181 Basic Public Speaking OR .......................... 3
COM 252 Introduction to Interpersonal Communications ...(3)
ECO 101 Contemporary Economic Issues OR .............. 3
ECO 201 Principles of Microeconomics ...........................(3)
MAT 110 Applied Mathematics or Higher Quantitative Reasoning ...(3)
Natural Sciences Course ............................................ 3
Heritage/Humanities .................................................. 3
Subtotal 18

Technical Courses
CIT 105 Introduction to Computers .................................. 3
OST 235 Business Communications ............................... 3
BAS 160 Introduction to Business ..................................... 3
BAS 256 International Business ....................................... 3
BAS 288 Personal and Organization Leadership ................. 3
BAS 289 Operations Management ................................... 3
LOM 100 Introduction to Logistics Management ................. 3
LOM 101 Transportation ................................................. 3
LOM 102 Supply Chain Management ................................ 3
LOM 202 Applied Supply Chain Management .................... 3
LOM 210 Lean for Logistics ............................................. 3
QMS 101 Introduction to Quality Systems .......................... 3
QMS 201 Customer Improvement Skills ............................ 3
QMS 212 Project Management OR ................................. 3
MGT 258 Project Management OR ................................... (3)
QMS 251 Strategic Quality Planning .................................. (3)
BAS 280 Business Internship OR ..................................... 3
COE 199 Cooperative Education ...................................... (0-6)
Subtotal 42-48

Total Credits 60-66

Certificate
Supply Chain Specialist – 520203059
(Offered at GTW)
CIT 105 Introduction to Computers .................................. 3
LOM 100 Introduction to Logistics Management .................... 3
LOM 102 Supply Chain Management .................................. 3
LOM 210 Lean for Logistics ............................................. 3
OST 235 Business Communications OR ............................... 3
COM 252 Interpersonal Communications ............................ (3)
Total Credits 15

Logistics Quality Technician – 5202033069
(Offered at GTW)
CIT 105 Introduction to Computers .................................. 3
LOM 100 Introduction to Logistics Management .................... 3
LOM 102 Supply Chain Management .................................. 3
LOM 210 Lean for Logistics ............................................. 3
QMS 101 Introduction to Quality Systems .......................... 3
QMS 251 Strategic Quality Planning .................................. 3
OST 235 Business Communications OR ............................... 3
COM 252 Interpersonal Communications ............................ (3)
Total Credits 21

Logistics Operations – 5202033079
(Offered at GTW)
CIT 105 Introduction to Computers .................................. 3
LOM 100 Introduction to Logistics Management .................... 3
LOM 102 Supply Chain Management .................................. 3
LOM 210 Lean for Logistics ............................................. 3
BAS 289 Operations Management ..................................... 3
QMS 212 Project Management OR ................................. 3
MGT 258 Project Management OR ................................... (3)
OST 235 Business Communications OR ............................... 3
COM 252 Interpersonal Communications ............................ (3)
Total Credits 21

Business Communication

The certificate in business communication will prepare students for a career in the rapidly evolving and expanding community of global enterprise. Students will learn both theoretical and applied lessons concerning effective management, team building, evaluation, message construction, effective listening, and standards for establishing mentorships through networking and workplace integration and socialization. They will complete a 5 course, 15 credit hour sequence with 2 courses selected from among class options in business and 3 courses selected from among class options in communication. There is no definitive time frame for a student to complete the certificate and they may choose to incorporate it as part of their broader degree attainment.

Certificate
Business Communication – 5202013469
(Offered at ASC, BSC, OWC, SEC)

Complete 2 (two) course from the list below.
BAS 160 Introduction to Business ..................................... 3
BAS 274 Human Resource Management .......................... 3
BAS 282 Principles of Marketing ...................................... 3
BAS 283 Principles of Management ................................... 3
BAS 287 Supervisory Management ................................... 3
Subtotal 6

Complete 3 (three) course from the list below.
COM 181 Basic Public Speaking ....................................... 3
COM 252 Introduction to Interpersonal Communication ............ 3
COM 254 Introduction to Intercultural Communication .............. 3
COM 281 Communication in Small Groups ........................... 3
COM 287 Persuasive Speaking .......................................... 3
Subtotal 9

Total Credit Hours 15

112
Business Foundations

The Business Foundations certificate incorporates foundational knowledge of finance, quality systems, and external environmental factors that affect businesses today. The certificate will prepare students to perform functions in an integrated business environment and better understand organizational strategies.

Certificate

**Business Foundations – 5201013029**

*(Offered at ASC, BSC, HZC, GTW, SEC)*

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<tr>
<td>ACC 201</td>
<td>Financial Accounting OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I AND (3)</td>
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<tr>
<td>ACT 102</td>
<td>Fundamentals of Accounting II (3)</td>
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<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics OR (3)</td>
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</tr>
<tr>
<td>ECO 101</td>
<td>Contemporary Economic Issues OR (3)</td>
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</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics (3)</td>
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</tr>
</tbody>
</table>

Technical Courses* ............................................ 9

Total Credit Hours 18-21

Select 9 (nine) credit hours from the following technical courses*:

BAS 267 Introduction to Business Law ................................ 3
BAS 290 Management, Ethics & Society** ....................................... 3
BAS 288 Personal & Organizational Leadership ................................ 3
QMS 240 Statistics for Quality I*** ..................................... 3
QMS 212 Project Management .................................................... 3

**BAS 290 pre-requisite is BAS 283 or Consent of Instructor. BAS 283 pre-requisite is BAS 160 or Consent of Instructor.

***QMS 240 pre-requisite is MAT 150.

**Certified Medical Technician**

The program bundles the current classes of NAA100, PHB152, PHB170 and CPR100. Once all of these classes are completed successfully the graduate will be eligible to receive the certified medical technician certificate. The program allows the graduate to either enter the healthcare field with a varied technical skill set and/or enter a healthcare program.

Certificates

**Certified Medical Technician – 5108993039**

*(Offered at MDC, SMC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
<td>1</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills 1</td>
<td>3</td>
</tr>
<tr>
<td>PHB 152</td>
<td>Phlebotomy: Clinical Experience</td>
<td>1</td>
</tr>
<tr>
<td>PHB 170</td>
<td>Applied Phlebotomy</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 8

Civil Engineering Technology

The Civil Engineering Technology program is an Associates of Applied Science program designed to offer students the training necessary to establish careers in civil engineering technology fields. Career options include materials testing, commercial, residential and highway surveying; highway construction management; construction management; construction estimation; construction documentation; construction site design and waste-water management.

The Civil Engineering Technology Program will focus on the field tasks and hands on aspects of construction.

**Associate in Applied Science**

**Civil Engineering Technology - 1502017019**

*(Offered at BLC, BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II*</td>
<td>3</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer-Aided Design OR</td>
<td>3</td>
</tr>
<tr>
<td>ACH 185</td>
<td>Computer-Aided Drafting I (3)</td>
<td></td>
</tr>
<tr>
<td>MA 109</td>
<td>College Algebra*</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications Course*</td>
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<tr>
<td>PHY 211</td>
<td>General Physics*</td>
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<tr>
<td>Social/Behavioral Sciences Course*</td>
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Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACH 160</td>
<td>Building Materials and Construction I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 225</td>
<td>Structures</td>
<td>3</td>
</tr>
<tr>
<td>CE 211</td>
<td>Surveying</td>
<td>4</td>
</tr>
<tr>
<td>CET 150</td>
<td>Civil Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CET 200</td>
<td>Civil Engineering Materials</td>
<td>3</td>
</tr>
<tr>
<td>CET 210</td>
<td>Structural Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CET 220</td>
<td>Intermediate Surveying</td>
<td>4</td>
</tr>
<tr>
<td>CET 260</td>
<td>Hydrology and Drainage</td>
<td>3</td>
</tr>
<tr>
<td>MA 112</td>
<td>Trigonometry</td>
<td>2</td>
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<td>Elective</td>
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</table>

Subtotal 40

Total 67

Technical Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ACH 100</td>
<td>Construction Documents I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 150</td>
<td>Construction Documents II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 161</td>
<td>Building Materials and Construction II</td>
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<tr>
<td>ACH 285</td>
<td>Computer-Aided Drafting II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 290</td>
<td>Building Codes I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 291</td>
<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>ACH 292</td>
<td>Building Codes II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 294</td>
<td>Specification Writing</td>
<td>3</td>
</tr>
<tr>
<td>ACH 297</td>
<td>Estimating Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ACH 298</td>
<td>Computer-3D Modeling</td>
<td>3</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer-Aided Design</td>
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</tr>
<tr>
<td>CET 280</td>
<td>Highway Design</td>
<td>3</td>
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<tr>
<td>CET 295</td>
<td>Independent Problems</td>
<td>1-4</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education: CET</td>
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<tr>
<td>GIS 110</td>
<td>Spatial Data Analysis and Map Interpretation</td>
<td>3</td>
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<tr>
<td>GIS 120</td>
<td>Introduction to Geographic Information Systems</td>
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</tr>
<tr>
<td>GIS 210</td>
<td>Advanced Topics in GIS</td>
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</tr>
<tr>
<td>GLY 220</td>
<td>Principles of Physical Geology</td>
<td>4</td>
</tr>
</tbody>
</table>

* Satisfies General Education requirement for AAS degree

**Other course(s) approved by program coordinator
Community Dental Health Coordinator

This program is designed for Registered Dental Hygienists (RDHs) who are interested in working in community dental health as Community Dental Health Coordinators (CDHCs). A CDHC is a Community Health Worker (CHW) with a focused skill set pertaining to oral health. CDHCs provide oral health education, prevention intervention, and low level dental care while helping patients navigate the public health system in pursuit of oral health care.

Certificate

Community Dental Health Coordinator – 5122083009

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDH 110</td>
<td>Dental Health Communication Skills</td>
<td>3</td>
</tr>
<tr>
<td>CDH 115</td>
<td>Dental Health Coordination, Documentation, Reporting, and Finance</td>
<td>3</td>
</tr>
<tr>
<td>CDH 125</td>
<td>Dental Health Teaching and Learning Skills</td>
<td>2</td>
</tr>
<tr>
<td>CDH 220</td>
<td>Prevention of Periodontal Disease</td>
<td>3</td>
</tr>
<tr>
<td>CDH 245</td>
<td>Community Dental Health Coordinator Internship</td>
<td>6</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

Computer Aided Drafting and Design

A computer aided drafter and designer is a technical specialist with broad-based skills for architectural, civil, mechanical, and manufacturing fields. In this program, the students are taught manual drafting techniques, 2D and 3D CAD, and 3D printing. Specific skills taught include, but are not limited to, lettering, geometric construction, orthographic projections, dimensioning and tolerancing, and related technical processes. These skills are required to transform specifications and instructions of architects, designers, and engineers into complete and precise drawings. The drafter is a skilled technician with a thorough understanding of the graphic language and is an indispensable contributor to the engineering design team.

Progression in the Computer Aided Drafting and Design program is contingent upon achievement of a grade of "C" or greater in each technical and mathematics course with maintenance of a 2.0 cumulative grade point average or above (on a 4 scale).

Associate in Applied Science

Computer Aided Drafting and Design - 1513017029

*(Offered at BLC, BSC, ELC)*

General Education:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I ...........................................</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Quantitative Reasoning (MAT 105 excluded)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities</td>
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<td>Oral Communications</td>
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Technical Core:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design OR</td>
<td>3</td>
</tr>
<tr>
<td>CAD 103</td>
<td>CAD Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer Aided Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 201</td>
<td>Parametric Modeling</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Technical Electives (Choose from the Technical Electives List)</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>42-46</strong></td>
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<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>60-64</strong></td>
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</tbody>
</table>

NOTE: Computer/Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Technical Electives: (This list is not all inclusive, other courses may be taken as approved by the program coordinator such as courses with prefix ACH, BRX, CAR, SMT, and PLW.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 108</td>
<td>Introduction to Surveying</td>
<td>3</td>
</tr>
<tr>
<td>CAD 120</td>
<td>Introduction to Architecture</td>
<td>4</td>
</tr>
<tr>
<td>CAD 150</td>
<td>Programming in CAD</td>
<td>4</td>
</tr>
<tr>
<td>CAD 212</td>
<td>Industrial Drafting Processes</td>
<td>4</td>
</tr>
<tr>
<td>CAD 216</td>
<td>Building Information Modeling</td>
<td>4</td>
</tr>
<tr>
<td>CAD 222</td>
<td>Mechanical Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 220</td>
<td>Architectural Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 230</td>
<td>Construction Techniques</td>
<td>4</td>
</tr>
<tr>
<td>CAD 240</td>
<td>Advanced Dimensioning and Measurement</td>
<td>4</td>
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<td>CAD 252</td>
<td>Commercial Detailing</td>
<td>4</td>
</tr>
<tr>
<td>CAD 262</td>
<td>Working Drawings</td>
<td>4</td>
</tr>
<tr>
<td>CAD 292</td>
<td>Industrial Applications</td>
<td>4</td>
</tr>
<tr>
<td>CAD 293</td>
<td>Special Problems</td>
<td>4</td>
</tr>
<tr>
<td>DPT 100</td>
<td>Introduction to 3D Printing Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Diploma

Computer Aided Drafting and Design - 1513014049

*(Offered at ASC, BLC, BSC, ELC, HZC, HPC, JFC, MYC, SEC, WKC)*

General Education:

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communication, Oral Communications, Humanities, Heritage</td>
<td>3</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Area 2</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Quantitative Reasoning (MAT 105 excluded)</td>
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| Subtotal | 6 |

Technical Core:

<table>
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<th>Units</th>
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<tr>
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<table>
<thead>
<tr>
<th>Area 2</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Computer Aided Design OR</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CAD Fundamentals</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Drafting Fundamentals</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Engineering Graphics</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Intermediate Computer Aided Design</td>
<td>4</td>
<td></td>
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<tr>
<td>Parametric Modeling</td>
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| Subtotal | 38-42 |

| Total Credits | 44-48 |

NOTE: Computer/Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Technical Electives: (This list is not all inclusive, other courses may be taken as approved by the program coordinator such as courses with prefix ACH, BRX, CAR, SMT, and PLW.)

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>Introduction to Surveying</td>
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<tr>
<td>Introduction to Architecture</td>
<td>4</td>
<td></td>
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<tr>
<td>Descriptive Geometry</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Programming in CAD</td>
<td>4</td>
<td></td>
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<tr>
<td>Industrial Drafting Processes</td>
<td>4</td>
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<tr>
<td>Building Information Modeling</td>
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<td>Mechanical Design</td>
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<td>Architectural Design</td>
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<tr>
<td>Construction Techniques</td>
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<td>Advanced Dimensioning and Measurement</td>
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<tr>
<td>Commercial Detailing</td>
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<td>Working Drawings</td>
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<td>Industrial Applications</td>
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<td>Special Problems</td>
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<tr>
<td>Cooperative Experience</td>
<td>1-3</td>
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| DPT 100 | Introduction to 3D Printing Technology | 3 |
**General Education:**
- Written Communication, Oral Communications, or Humanities/Heritage ................................................. 3
- Quantitative Reasoning (MAT 105 excluded) .......................................................... 3

**Subtotal** ................................................. 6

**Technical Core:**
- Digital Literacy course OR demonstrated competency .................................................. 0-3
- CAD 100 Introduction to Computer Aided Design OR .................................................. 3
- CAD 103 CAD Fundamentals ................................................................. (4)
- CAD 102 Drafting Fundamentals ................................................................. 4
- CAD 112 Engineering Graphics ................................................................. 4
- CAD 200 Intermediate Computer Aided Design .................................................. 4
- CAD 201 Parametric Modeling ................................................................. 4
- Technical Elective ......................................................................................... 4

**Subtotal** ................................................. 23-27

**Total Credits** ................................................. 29-33

**Civil Drafter - 1513013049**
(Offered at ASC, BLC, BSC, HZC, JFC, SEC)

**General Education:**
- Quantitative Reasoning (MAT 105 excluded) .................................................. 3

**Subtotal** ................................................. 3

**Technical Core:**
- Digital Literacy course OR demonstrated competency .................................................. 0-3
- CAD 100 Introduction to Computer Aided Design OR .................................................. 3
- CAD 103 CAD Fundamentals ................................................................. (4)
- CAD 102 Drafting Fundamentals ................................................................. 4
- CAD 112 Engineering Graphics ................................................................. 4

**Subtotal** ................................................. 11-15

**Surveying Core:**

**Choose 9-12 hours from the following courses:**
- CAD 108 Introduction to Surveying .................................................. 3
- CAD 130 Descriptive Geometry ................................................................. 4
- SMT 110 Principles of Surveying ................................................................. 3
- SMT 130 Land Surveying Graphics ................................................................. 3
- SMT 160 Construction Surveying ................................................................. 3
- SMT 210 Advanced Surveying Measurements .................................................. 3
- SMT 220 Surveying Lab ................................................................. 3
- SMT 230 Land Boundary Location ................................................................. 3
- SMT 250 Mine Surveying ................................................................. 3

**Subtotal** ................................................. 9-12

**Total Credits** ................................................. 23-30

**Computer & Information Technologies**


This program includes tracks in Applications, Information Security, Internet Technologies, Network Administration, Networking Technologies, Programming, Computer Science, Video Game Design, and Data Center Technologies, with a core of courses common to all. The core includes a general education component essential to a collegiate education and a technical component giving students an introduction to information systems, computer applications, program development, system maintenance, networking, security, Internet technologies, database design, and collaborative system development. In addition to core courses, students take specialty courses for their selected track.

- Students graduating with a degree or certificate in Computer & Information Technologies may only use a course with a grade of “C” or higher (or a “Pass” for Pass/Fail courses) to fulfill a core or track graduation requirement.
- The Computer & Information Technologies department does not accept non-Gen Ed courses older than 5 years from returning or transfer students without consent from the local program coordinator.
- Students may not use one course to fulfill multiple requirements.
The Applications track emphasizes several aspects of application software. It includes such productivity applications as: word processing, spreadsheets, database management, presentation, geographic information systems, website development/maintenance, and help desk tracking systems. Completion of this track will prepare students to work with computer-based systems in business and industry.

Business Software Specialist - Designed to train students to operate a wide variety of software packages and to assist businesses in developing and maintain databases, producing financial statements, and developing applications using various software packages

Computer Support - Provides an in-depth knowledge of application software, computer system configurations, Help Desk Tools/Software, end-user documentation, user training, and other user support skills.

Geographic Information Systems - Provides students with practical GIS skills and a solid foundation for geographical manipulation through developing and implementing GIS Applications.

Software Support - Provides an in-depth knowledge of application software, computer system configurations, and data driven websites.

The Information Security track will provide a solid background in information security. Fundamentals of information security, offensive and defensive techniques, and security topics such as operating system security, network security design, or other security topics are covered. This track will help prepare students for entry-level positions of network security, auditing and penetration testing, firewall configuration, and computer crime investigation.

The Internet Technologies track prepares students to design, program, and maintain Internet-based services. With specializations in web programming and web server administration, this track will help prepare students for positions developing and maintaining interactive web sites.

The Network Administration track provides the concepts and skills needed to design, set-up, maintain and expand network and telecommunications systems. The curriculum provides specific training in Cisco, and/or Microsoft network systems. Upon completion of the track, the graduate will be qualified to take industry designed and recognized certification examinations. Employment opportunities include entry-level positions in installation and administration of local and wide area networks in medium to large businesses and organizations, and computer network administration positions in small businesses.

The Network Technologies track provides the concepts and skills needed to set up, maintain, and expand networked computer systems. This track requires sequences in Microsoft Windows, Cisco, and UNIX/Linux as well as courses providing deeper insight into Internet protocols and network security. Employment opportunities include entry-level positions in installation and administration of local and wide area networks in medium to large organizations, and computer network administrators in small business.

The Programming track prepares students to design, develop, and maintain computer programs written in current and emerging programming languages. With tracks in Information Systems and Software Development, students successfully completing this track are prepared for entry-level positions in computer programming.

Information Systems - This track is designed with an emphasis on programming for a business environment. Students completing the Information Systems track study basic business concepts, one programming language at an advanced level, and two programming languages at an introductory level.

Software Development - This track emphasizes computer software development. Students completing the Software Development track study a minimum of two computer programming languages at an advanced level and additional programming language(s) at an introductory level. Flexibility within this track allows students to focus on a specific area of software development by means of the programming languages they choose to study (object-oriented programming, database programming, game development, etc.).

The Computer Science track prepares students interested in an advanced study of computer programming. The curriculum couples the study of programming with computer science concepts such as computational complexity, advanced data structures, and proof techniques. The curriculum may also be used to prepare students for entry into bachelor-level programs in computer science.

The Video Game Design track prepares students to design, develop, and market digital games and simulations. This track focuses on game development with an emphasis on game programming.

The Data Center Technologies track provides experience with Cloud computing areas such as virtualization, storage, security, high availability and adherence to standards in provisioning of computing resources that meet business and organizational needs. The curriculum may be used to prepare students for entry level positions in organizations that manage and design data centers.

Computer Technician Certificate

The Computer Technician Certificate offers students the opportunity to earn a credential demonstrating computer technician competencies. This certificate consists of the core skills that students need to achieve the industry A+ and Security+ certifications. In addition, this certificate will provide a way for professionals currently in the industry to update their technician skills and for new students to show progress in the CIT program.

CIT Fundamentals Certificate

The CIT Fundamentals Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computers. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency.

Productivity Software Specialist Certificate

The Productivity Software Specialist Certificate offers students the opportunity to earn a credential demonstrating productivity software competencies. This certificate consists of the core skills that students need to effectively use various productivity software products. In addition, this certificate will provide a way for professionals currently in the industry to update their productivity software skills and for new students to show progress in the CIT program.

Computer Tech Basic Certificate

The Computer Tech Basic Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer information technology. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency. The Computer Tech Basic Certificate prepares students for the CompTIA A+ and Net+ certification exams which are recognized by the computer industry around the world.
Computer Support Technician Certificate
The Computer Support Technician Certificate offers students the opportunity to earn a credential demonstrating computer support technician competencies. The certificate consists of the core skills that students need for computer and end-user support. In addition, this certificate will provide a way for professionals currently in the industry to update their computer support technician skills and for new students to show progress in the CIT program.

Information Security Specialist Certificate
The Information Security Specialist Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their information security skills and for new students to show progress in the CIT program.

Microsoft Network Administrator Certificate
The Microsoft Network Administrator Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program.

CISCO Networking Associate Certificate
The CISCO Networking Associate Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA and Net+ exams which are recognized by the computer industry around the world.

Network Technologies Specialist Certificate
The Network Technologies Specialist Certificate offers students the opportunity to earn a credential demonstrating networking technology competencies. This certificate consists of specialized networking classes that students need to effectively configure and maintain networks using network technologies specialist skills. In addition, this certificate will provide a way for professionals currently in the industry to update their network technologies specialist skills.

Net+ Certificate
The Net+ Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Net+ Certificate prepares students for the CompTia Net+ exam which is recognized by the computer industry around the world.

Security + Certificate
The Security+ Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Security+ Certificate prepares students for the CompTia Security+ exam which is recognized by the computer industry around the world.

CISCO Networking Enhanced Certificate
The CISCO Networking Enhanced Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA and Net+ exams which are recognized by the computer industry around the world.

A+ Certificate
The A+ Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer hardware and software. The certificate consists of one course that prepares students for the CompTia A+ certification exams which are recognized by the computer industry around the world. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of proficiency.

Microsoft Enterprise Administrator Certificate
The Microsoft Enterprise Administrator certificate offers students the opportunity to earn a credential demonstrating skills in the administration and design of Microsoft enterprise networks. This certificate consists of the core skills that students need to effectively plan, build, and maintain a Microsoft network. In addition, this certificate will provide a way for professionals currently in the industry to update their Microsoft network administrator skills.

Programming Certificate
The Software Developer Certificate offers students the opportunity to earn a credential demonstrating programming competencies. This certificate consists of the core skills that students need to effectively develop programs using multiple computer languages. In addition, this certificate will provide a way for professionals currently in the industry to update their programming skills and for new students to show progress in the CIT program.

Web Programming Certificate
The Web Programming Certificate offers students the opportunity to earn a credential demonstrating web programming competencies. This certificate consists of the core skills that students need to effectively develop websites using web programming. In addition, this certificate will provide a way for professionals currently in the industry to update their web programming skills and for new students to show progress in the CIT program.

Web Administration Certificate
The Web Administration Certificate offers students the opportunity to earn a credential demonstrating web administration competencies. This certificate consists of the core skills that students need to effectively maintain web sites through network and web server administration. In addition, this certificate will provide a way for professionals currently in the industry to update their web administration skills and for new students to show progress in the CIT program.
Digital Forensics Certificate

The Digital Forensics Certificate offers students the opportunity to earn a credential demonstrating skills in digital forensics. Digital forensics covers the retrieval and investigation of material found in digital devices. Digital material refers to all methods of electronic data storage and transfer devices, including computers, laptops, cell phones, tablets, gaming consoles, and portable storage devices. The goal of digital forensics is to ensure the integrity of that digital material while thoroughly examining it. Digital forensics requires in-depth knowledge of the understanding of the legal as well as the technical aspects of cyber-crime. This certificate consists of the core skills that students need to demonstrate in basic digital forensics skills. It provides an introduction to information security and incident response, forensic preparation and data recovery and analysis. The goals of this certificate focus on the principles and techniques used to identify, search, seize and analyze digital media, and to conduct cyber investigations. In addition, this certificate will provide a way for professionals currently in the industry to update their digital forensics skills and for new students to show progress in the CIT program.

Mobile Apps Development Certificate

The Mobile Apps Development Certificate offers students the opportunity to earn a credential demonstrating mobile apps development competencies. This certificate consists of the core skills that students need to effectively develop mobile apps. It provides a way for professionals currently in the industry to update their mobile app development skills and for new students to show progress in the CIT program.

Informatics Programming Certificate

This certificate offers students the opportunity to earn a credential demonstrating informatics programming competencies. It consists of core abilities that students need to design well-structured databases and effectively develop secure applications using an object-oriented programming language to interface with databases.

Associate in Applied Science

Computer and Information Technologies - 1101017089

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Core Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIT 120</td>
<td>Computational Thinking</td>
<td>3</td>
</tr>
<tr>
<td>CIT 150</td>
<td>Internet Technologies OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development OR</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 157</td>
<td>Web Site Design and Production</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 170</td>
<td>Database Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIT 180</td>
<td>Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIT 291</td>
<td>CIT Capstone</td>
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<td><strong>Technical Core Subtotal</strong></td>
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Applications Track – 110101711

(Offered at ASC, BLC, BSC, HEC, HPC, JFC, MDC, MYC, OWC, SEC, WKC)

Business Software Specialist

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 234</td>
<td>Advanced Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>CIT 236</td>
<td>Advanced Data Organization</td>
<td>3</td>
</tr>
<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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Computer Support

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 232</td>
<td>Help Desk Operations</td>
<td>3</td>
</tr>
<tr>
<td>CIT 234</td>
<td>Advanced Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>CIT 236</td>
<td>Advanced Data Organization</td>
<td>3</td>
</tr>
<tr>
<td>CIT 251</td>
<td>CIT Technical Course</td>
<td>3</td>
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<tr>
<td><strong>Subtotal</strong></td>
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Geographic Information Systems

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 125</td>
<td>Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>CIT 225</td>
<td>GIS Software Tools</td>
<td>3</td>
</tr>
<tr>
<td>CIT 229</td>
<td>Selected Topics in GIS</td>
<td>3</td>
</tr>
<tr>
<td>CIT 253</td>
<td>Data-Driven Web Pages: Topic</td>
<td>3</td>
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<td><strong>Subtotal</strong></td>
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</table>

Software Support

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 234</td>
<td>Advanced Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>CIT 236</td>
<td>Advanced Data Organization</td>
<td>3</td>
</tr>
<tr>
<td>CIT 253</td>
<td>Data-Driven Web Pages: Topic</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II OR</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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Total

| | | **65** |

General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Heritage/Humanities Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences Course</td>
<td>3</td>
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<td><strong>Subtotal</strong></td>
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General Education for Computer Science Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 174</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>Social/Behavioral Science Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Heritage/Humanities Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHY 231</td>
<td>General University Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHY 241</td>
<td>General University Physics Laboratory</td>
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<tr>
<td><strong>General Education (CS) Subtotal</strong></td>
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</table>

Applications Track – 110101711

(Continued on following page)
### Computer Science Track - 110101714

(Offered at BLC, BSC, HEC, HPC, HZC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 215 Introduction to Web Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIT 216 Introduction to Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CIT 275 Discrete Mathematics</td>
<td>4</td>
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</table>

**Total** 11

### Information Security Track - 110101712

(Offered at ASC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 182 Perimeter Defense</td>
<td>3</td>
</tr>
<tr>
<td>CIT 184 Attacks and Exploits</td>
<td>3</td>
</tr>
<tr>
<td>CIT 217 UNIX/Linux Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total** 12

### Internet Technologies Track - 110101710

(Offered at ASC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 150 Internet Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155 Web page Development</td>
<td>3</td>
</tr>
<tr>
<td>CIT 157 Web Site Design and Production</td>
<td>3</td>
</tr>
<tr>
<td>CIT 253 Data-Driven Web Pages</td>
<td>3</td>
</tr>
<tr>
<td>CIT 257 Applied Internet Technologies OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 258 Internet Technologies Seminar</td>
<td>3</td>
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</table>

**Total** 24

### Network Administration Track - 110101708

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 213 Microsoft Client Configuration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 214 Microsoft Server Configuration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 215 Microsoft Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 216 Microsoft Server Advanced Series</td>
<td>3</td>
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</table>

**Total** 12

### Network Administration Specialization Sequences:

#### Microsoft Windows Administration Specialization Sequence

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 214 Microsoft Server Configuration AND CIT 215 Microsoft Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 216 Microsoft Server Advanced Services</td>
<td>3</td>
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</table>

**Total** 12

### Network Technologies Track - 110101713

(Offered at ASC, BSC, HEC, MDC, MYC, OWC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 219 Internet Protocols</td>
<td>3</td>
</tr>
<tr>
<td>CIT 288 Network Security</td>
<td>3</td>
</tr>
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</table>

**Total** 12

### Approved Level I Network Technologies Specialization Sequences*

#### Microsoft Windows Sequence I

Any 6 credit hours of course work from the Approved Microsoft Windows Network Specialization Course list...

**Total** 6

#### UNIX/Linux Sequence I

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 217 UNIX/Linux Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 218 UNIX/Linux Net Infrastructure</td>
<td>3</td>
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</tbody>
</table>

**Total** 6

#### Cisco Sequence I

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 167 Routing &amp; Switching Essentials</td>
<td>4</td>
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</tbody>
</table>

**Total** 4

#### Security Sequence I

Any 6 credit hours of course work from the Approved Security Specialized Sequence Course list which is not taken as part of another sequence...

**Total** 6

### Approved Level II Network Technologies Specialization Sequences*

#### Microsoft Windows Sequence II

Any 6 credit hours of course work from the Approved Microsoft Windows Network Specialization Course list (after completing the requirements for the Microsoft Windows Specialization Sequence I), or other courses as approved by the CIT Program Coordinator...

**Total** 6

#### UNIX/Linux Sequence II

**Choose two:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 255 Web Server Administration OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 286 UNIX/Linux Net Security</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total** 12

---

*Approved CIT Technical Course

*Approved Microsoft Windows Network Specialization Course

*Approved Level I, Level II or Level III Network Technologies Specialization Sequence

*Approved Level I Network Technologies Specialization Sequence

*Approved Level II Network Technologies Specialization Sequence

*Approved Security Sequence
Choose one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 140</td>
<td>JavaScript I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 141</td>
<td>PHP I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 142</td>
<td>C++ I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 144</td>
<td>Python I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 145</td>
<td>Perl I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 149</td>
<td>Java I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 255</td>
<td>Web Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 286</td>
<td>UNIX/Linux OS Security, OR</td>
<td>3</td>
</tr>
</tbody>
</table>

**University Level I programming Languages as approved by local Program Coordinator:** 3-4

**Cisco Sequence II**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 209</td>
<td>Scaling Networks</td>
<td>4</td>
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<tr>
<td>CIT 212</td>
<td>Connecting Networks</td>
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**Sequence Subtotal**: 8

**Approved Level III Network Technologies Specialization Sequences**

**Internet Servers Administration Sequence**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 255</td>
<td>Web Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 265</td>
<td>MS Applications Servers</td>
<td>3</td>
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**Microsoft Windows Sequence III**

Any 6 credit hours of course work from the Approved Microsoft Windows Network Specialization Course list (after completing the requirements for the Microsoft Windows Sequence II), or other courses as approved by the CIT Program Coordinator.

**Sequence Subtotal**: 6

**Programming Track - 110101709**

(Offered at BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
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<tr>
<td>CIT</td>
<td>Approved CIT Technical Course(s)</td>
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**Programming Track Specialization Sequence**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>3</td>
</tr>
<tr>
<td>CIT</td>
<td>Approved Level II Programming Language</td>
<td>3</td>
</tr>
<tr>
<td>CIT</td>
<td>Approved Level I, II or III Programming Language</td>
<td>3</td>
</tr>
<tr>
<td>CIT</td>
<td>Approved Programming Management Course</td>
<td>3</td>
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<tr>
<td>CIT</td>
<td>Approved Programming Business Course</td>
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**Subtotal**: 15

**Programming Software Development Specialization Sequence**

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 253</td>
<td>Data-Driven Web Pages: Topic</td>
<td>3</td>
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</table>

**Subtotal**: 15

**Video Game Design Track - 110101715**

(Offered at BLC, HEC, HZC, MYC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT/IMD124</td>
<td>Introduction to Game Development</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD272</td>
<td>Game Design Theory</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD274</td>
<td>Seminar in Game Development</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD221</td>
<td>Computer Graphics AND</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD222</td>
<td>3D Modelling for Video Games AND</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD223</td>
<td>3D Animation for Video Games AND</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD273</td>
<td>Game Production AND</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Video Game Design Elective</td>
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</tbody>
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OR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>DGD 131</td>
<td>3D Texturing and Lighting I AND</td>
<td>3</td>
</tr>
<tr>
<td>DGD 132</td>
<td>Introduction to 3D Graphics AND</td>
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</tr>
<tr>
<td>DGD 234</td>
<td>3D Animation AND</td>
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</tr>
<tr>
<td>DGD 236</td>
<td>Game Engines I AND</td>
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<tr>
<td>DGD 237</td>
<td>Game Engines II AND</td>
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**Track Subtotal**: 24

**Data Center Technologies Track – 110101716**

(Offered at JFC, WKC)

<table>
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<tr>
<td>CIT 167</td>
<td>Routing and Switching Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CIT 201</td>
<td>Information Storage Management</td>
<td>3</td>
</tr>
<tr>
<td>CIT 214</td>
<td>Microsoft Server Configuration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 217</td>
<td>Unix/Linux Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 203</td>
<td>Introduction to Virtualization</td>
<td>3</td>
</tr>
<tr>
<td>CIT 204</td>
<td>VMware Optimize and Scale</td>
<td>3</td>
</tr>
<tr>
<td>CIT 205</td>
<td>Cloud Infrastructure and Services</td>
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**Track Subtotal**: 22

**Course Choice Lists**

**Approved Business Courses**

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<th>Course</th>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting</td>
<td>3</td>
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<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
<td>3</td>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>IFM 128</td>
<td>Principles of Informatics</td>
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</tr>
<tr>
<td>IFM 211</td>
<td>Collaboration Software</td>
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Any business or informatics course approved by Program Coordinator.

**Approved Management Courses**

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<thead>
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<th>Course</th>
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<tbody>
<tr>
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<td>Small Business Management</td>
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<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
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<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
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<td>MFG 256</td>
<td>Production Management</td>
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<td>OST 275</td>
<td>Office Management</td>
<td>3</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
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Any management course approved by Program Coordinator.

**Approved Level I Networking Courses**

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<th>Credits</th>
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<tr>
<td>CIT 160</td>
<td>Intro to Networking Concepts</td>
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<tr>
<td>CIT 161</td>
<td>Introduction to Networks</td>
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**Approved Network Elective Courses**

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<tr>
<td>CIT 167</td>
<td>Routing &amp; Switching Essentials</td>
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</tr>
<tr>
<td>CIT 209</td>
<td>Scaling Networks</td>
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<tr>
<td>CIT 212</td>
<td>Connecting the Networks</td>
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<tr>
<td>CIT 214</td>
<td>Microsoft Server Configuration</td>
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<td>CIT 215</td>
<td>Microsoft Server Administration</td>
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<td>CIT 216</td>
<td>Microsoft Server Advanced Services</td>
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<tr>
<td>CIT 218</td>
<td>UNIX/Linux Net Infrastructure</td>
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<tr>
<td>CIT 219</td>
<td>Internet Protocols</td>
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<tr>
<td>CIT 260</td>
<td>Network Hardware Installation and Troubleshooting</td>
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<tr>
<td>CIT 263</td>
<td>Advanced Microsoft Topics</td>
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Or other Microsoft networking courses as approved by the CIT Program Coordinator.

**Approved Security Elective Courses**

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<td>Computer Forensics</td>
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<tr>
<td>CIT 285</td>
<td>Windows OS Security</td>
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<tr>
<td>CIT 286</td>
<td>UNIX/Linux OS Security</td>
<td>3</td>
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<tr>
<td>CIT 287</td>
<td>Cisco OS Security</td>
<td>3</td>
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<tr>
<td>CIT 288</td>
<td>Network Security</td>
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Approved Microsoft Windows Network Specialization Courses*
CIT 213 Microsoft Client Configuration .......................... 3
CIT 214 Microsoft Server Configuration ....................... 3
CIT 215 Microsoft Server Administration ........................ 3
CIT 216 Microsoft Server Advanced Services ................... 3
CIT 265 MS Applications Servers ................................. 3
CIT 266 MS Enterprise Administration .......................... 3

Approved Security Sequence Courses*
CIT 182 Perimeter Defense and Countermeasures ............... 3
CIT 184 Attacks and Exploits ..................................... 3
CIT 284 Computer Forensics ..................................... 3
CIT 285 Windows OS Security ..................................... 3
CIT 286 UNIX/Linux OS Security ................................. 3

Approved Level I Programming Language Courses*
CIT 140 JavaScript I ............................................... 3
CIT 141 PHP I .................................................. 3
CIT 142 C++ I .................................................. 3
CIT 143 C# I ................................................... 3
CIT 144 Python I ................................................. 3
CIT 145 Perl I .................................................. 3
CIT 147 Programming I: Language .................................. 3
CIT 148 Visual Basic I .......................................... 3
CIT 149 Java I .................................................. 3
CIT 171 SQL I .................................................. 3

Approved Level II Programming Language Courses*
CIT 241 PHP II .................................................. 3
CIT 242 C++ II .................................................. 3
CIT 243 C# II ................................................... 3
CIT 244 Python II ................................................. 3
CIT 246 2D Game Development: Language ...................... 3
CIT 247 Programming II: Language .................................. 3
CIT 248 Visual Basic II .......................................... 3
CIT 249 Java II .................................................. 3
CIT 271 SQL II .................................................. 3

Approved Level III Programming Language Courses*
CIT 276 3D Game Development: Language ..................... 3
CIT 277 Programming III: Language ............................. 3
CIT 278 Visual Basic III ......................................... 3

Approved Level I Web Programming Language Courses*
CIT 141 PHP I .................................................. 3
CIT 148 Visual Basic I .......................................... 3
CIT 149 Java I .................................................. 3

Approved Level II Web Programming Language Courses*
CIT 241 PHP II .................................................. 3
CIT 248 Visual Basic II .......................................... 3
CIT 249 Java II .................................................. 3

Approved Social Media Courses*
CIT 151 Social Media I ........................................... 3
CIT 152 Social Media Tools and Technologies ..................... 3
CIT 251 Social Media II .......................................... 3

Approved Mobile Apps Programming Courses*
CIT 140 JavaScript I ............................................. 3
CIT 143 C# I ................................................... 3
CIT 149 Java I .................................................. 3

Approved Video Game Design Electives*
CIT 246 2-D Game Development: [Language TBA] ............... 3
CIT 276 3-D Game Development: [Language TBA] ............... 3

Approved CIT Technical Courses*

*Or other courses approved by Computer & Information Technologies Program Coordinator

Note: Students may not use one course to fulfill multiple requirements. Students may choose CIT 290 or COE 199 for a maximum of 3 credit hours.

Certificates

Computer Technician - 1101013289
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SJM, WKC)
CIT 105 Introduction to Computing ................................ 3
CIT 111 Computer Hardware and Software ....................... 4
CIT 180 Security Fundamentals .................................... 3
Total .......... 14

CIT Fundamentals - 1101013309
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SJM, WKC)
CIT 105 Introduction to Computing ................................ 3
CIT 111 Computer Hardware and Software ....................... 4
CIT 120 Computational Thinking ................................... 3
CIT 150 Internet Technologies OR ................................ 3
CIT 155 Web Page Development OR ................................ (3)
CIT 157 Web Site Design and Production ........................... (3)
CIT 170 Database Design Fundamentals ......................... (3)
CIT 180 Security Fundamentals .................................... 3
Total .......... 26

Productivity Software Specialist - 1101013299
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SJM, WKC)
CIT 105 Introduction to Computing ................................ 3
CIT 130 Productivity Software ...................................... 3
CIT 234 Advanced Productivity Software ......................... 3
CIT 236 Adv. Data Organization Software ......................... 3
Total .......... 12

Computer Tech Basic - 1101013319
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SJM, WKC)
CIT 105 Introduction to Computers ................................ 3
CIT 111 Computer Hardware and Software ....................... 4
Total .......... 11

Computer Support Technician - 1101013329
(Offered at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SJM, WKC)
CIT 130 Productivity Software ...................................... 3
CIT 131 Computer Hardware and Software ....................... 4
CIT 232 Help Desk Operations ..................................... 3
CIT 234 Advanced Productivity Software ......................... 3
CIT 236 Advanced Data Organization Software ................... 3
Total .......... 16
### Information Security Specialist - 1101013339

(Offered at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>Approved Level I Networking Course</td>
<td>4</td>
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<tr>
<td>CIT 180 Security Fundamentals</td>
<td>3</td>
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<tr>
<td>CIT 182 Perimeter Defense</td>
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<td>CIT 184 Attacks and Exploits</td>
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### Microsoft Network Administrator - 1101013499

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Approved Level I Networking Course</td>
<td>4</td>
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<tr>
<td>CIT 213 Microsoft Client Configuration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 214 Microsoft Server Configuration</td>
<td>3</td>
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<tr>
<td>CIT 215 Microsoft Server Administration</td>
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<tr>
<td>CIT 216 Microsoft Server Advanced Services</td>
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### CISCO Networking Associate - 1101013359

(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, SEC, SKY, WKC)

<table>
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<td>CIT 161 Introduction to Networks</td>
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### Network Technologies Specialist - 1101013369

(Offered at ASC, BLC, BSC, HEC, HPC, HZC, MDC, MYC, OWC, SEC)

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CIT 219 Internet Protocols</td>
<td>3</td>
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<tr>
<td>CIT 288 Network Security</td>
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<td>Approved Level I and Level II Network Technologies</td>
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<td>Microsoft Windows Course Sequence OR</td>
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<td>Approved Level I and Level II Network Technologies</td>
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<tr>
<td>Cisco Course Sequence OR</td>
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<td>Approved Level I and Level II Network Technologies</td>
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<td>UNIX/Linux Course Sequence</td>
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### CISCO Networking Enhanced - 1101013379

(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, SEC, SKY, SMC, WKC)

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<tbody>
<tr>
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<tr>
<td>Cisco Network Associate Specialization Sequence</td>
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### A+ - 1101013389

(Offered at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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### Net+ - 1101013399

(Offered at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC)

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<th>Course</th>
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<tr>
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### Security+ - 1101013409

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC)

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<tbody>
<tr>
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### Microsoft Enterprise Administrator - 1101013419

(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, WKC)

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Approved Level I Networking Course</td>
<td>4</td>
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<tr>
<td>CIT 213 Microsoft Client Configuration</td>
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<tr>
<td>CIT 214 Microsoft Server Configuration</td>
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<td>CIT 215 Microsoft Server Administration</td>
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<td>CIT 216 Microsoft Server Advanced Services</td>
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<tr>
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### Programming – 1101013429

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

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<tr>
<td>Approved Level I Programming Language</td>
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<td>Approved Level II Programming Language</td>
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### Web Programming - 1101013439

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CIT 120 Computational Thinking</td>
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<tr>
<td>CIT 150 Internet Technologies</td>
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<tr>
<td>CIT 155 Web Page Development</td>
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<tr>
<td>CIT 157 Web Site Design and Production</td>
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<tr>
<td>CIT 171 SQL I</td>
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<tr>
<td>CIT 253 Data-Driven Web Pages: Topic</td>
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<tr>
<td>Approved Level I Web Programming Language</td>
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### Web Administration - 1101013449

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SMC)

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
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<tr>
<td>CIT 150 Internet Technologies</td>
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<td>CIT 155 Web Page Development</td>
<td>3</td>
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<td>CIT 157 Web Site Design and Production</td>
<td>3</td>
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<tr>
<td>CIT 253 Data-Driven Web Pages: Topic</td>
<td>3</td>
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<tr>
<td>CIT 219 Internet Protocols</td>
<td>3</td>
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<tr>
<td>CIT 225 Linux Admin</td>
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<tr>
<td>CIT 227 Microsoft Client Configuration AND</td>
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<tr>
<td>CIT 229 Microsoft Client Configuration</td>
<td>3</td>
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<tr>
<td>CIT 233 Microsoft Server Administration</td>
<td>3</td>
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<tr>
<td>CIT 235 Microsoft Server Advanced Services</td>
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</table>
**Computerized Manufacturing and Machining**

Work activities in machine shop involve applying knowledge of machine capabilities, the properties of materials, and shop practices to set-up and operate various machines. The skills needed to position work pieces, adjust machines, and verify the accuracy of machine functions and finish products are taught by classroom instruction, demonstration, and hands on experience.

Students enrolled in the Computerized Manufacturing & Machining program must achieve a minimum grade of “C” in each technical course.

**Associate in Applied Science**

**Computerized Manufacturing & Machining - 4805037019**

*(Offered at BLC, BSC, ELC, MYC, OWC, SKY, WKC)*

**General Education:**

<table>
<thead>
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<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
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<td>MAT 126</td>
<td>Technical Algebra and Trigonometry or Higher</td>
<td>3</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
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<td>MAT 126</td>
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**Technical:**

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<tr>
<td>CMM 112</td>
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<td>CMM 212</td>
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<td>Conversational Editing and Subroutines OR</td>
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<td>CMM 230</td>
<td>Conversational Programming OR</td>
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<td>CMM 234</td>
<td>CNC Machines and Coding Practices</td>
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<td>Advanced 3-D Code Sequencing and Macro Systems OR</td>
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<td>CMM 240</td>
<td>Intro to 3-D Programming OR</td>
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**Total Credits**

64-67

* Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

---

**Academic Curricula**

**Social Media Specialist – 1101013469**

*(Offered at ASC, BSC, HZC, HEC, HPC, HZC, MDC, MYC, OWC, SEC, SMIC)*

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<td>CIT 155</td>
<td>Web Page Development</td>
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<tr>
<td>CIT 151</td>
<td>Social Media I</td>
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<td>CIT 152</td>
<td>Social Media Tools and Technologies</td>
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<td>Social Media II</td>
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<td>Introduction to Business</td>
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**Digital Forensics – 1101013459**

*(Offered at ASC, BSC, HZC, HEC, MDC, OWC, SEC, SMIC)*

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<td>CIT 111</td>
<td>Hardware and Software</td>
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<td>Intro to Networking Concepts</td>
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<td>Criminal Investigations</td>
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<td>CIT 180</td>
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**Mobile Apps Development – 1101013479**

*(Offered at ASC, BSC, ELC, GTW, HZC, HEC, MDC, OWC, SKY, WKC)*

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<td>CIT 140</td>
<td>JavaScript I</td>
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<td>CIT 155</td>
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**Informatics Programming – 1101013489**

*(Offered at ASC, BSC, ELC, GTW, HZC, HEC, MDC, OWC, MYC, OWC, SEC, SMIC)*

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<tr>
<td>CIT 149</td>
<td>Java I AND</td>
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<tr>
<td>CIT 249</td>
<td>Java II</td>
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<td>CS 115</td>
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<tr>
<td>CIT 142</td>
<td>C++ I AND</td>
<td>3</td>
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<tr>
<td>CIT 242</td>
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<td>CIT 248</td>
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<tr>
<td>CIT 143</td>
<td>C# I AND</td>
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**Informatics Programming Language Pairs**

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<td>INF 260</td>
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<td>CIT 249</td>
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<td>C++ II</td>
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<tr>
<td>CIT 148</td>
<td>Visual Basic I AND</td>
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<td>CIT 143</td>
<td>C# I AND</td>
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### Diploma

#### CNC Machinist - 4805034069

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

**General Education:**

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<td><strong>Area 2:</strong></td>
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#### Technical:

- **Digital Literacy** .................................................. 0-3
- **CMM 110 Fundamentals of Machine Tools A AND** .................................................. 3
- **CMM 112 Fundamentals of Machine Tools B OR** .................................................. 3
- **CMM 114 Fundamentals of Machine Tools** .................................................. (6)
- **CMM 118 Metrology/Control Charts** .................................................. 2
- **CMM 120 Applied Machining I AND** .................................................. 3
- **CMM 122 Applied Machining II OR** .................................................. 3
- **CMM 124 Applied Machining** .................................................. (6)
- **CMM 130 Manual Programming AND** .................................................. 3
- **CMM 132 CAD/CAM/CNC OR** .................................................. 3
- **CMM 134 Manual Programming/CAD/CAM/CNC OR** .................................................. (6)
- **CMM 138 Intro to Programming & CNC Machines** .................................................. (6)
- **CMM 210 Industrial Machining I AND** .................................................. 3
- **CMM 212 Industrial Machining II OR** .................................................. 3
- **CMM 214 Industrial Machining** .................................................. (6)
- **CMM 220 Advanced Industrial Machining I AND** .................................................. 4
- **CMM 222 Advanced Industrial Machining II OR** .................................................. 2
- **CMM 224 Advanced Industrial Machining** .................................................. (6)
- **CMM 2301 Intro to Conversational Programming AND** .................................................. 3
- **CMM 2302 Conversational Editing and Subroutines OR** .................................................. 3
- **CMM 2303 Conversational Programming OR** .................................................. (6)
- **CMM 234 CNC Machines and Coding Practices** .................................................. (6)
- **CMM 2401 Intro to 3-D Code Sequencing and Tool path Production AND** .................................................. 3
- **CMM 2402 Advanced 3-D Code Sequencing and Macro Systems OR** .................................................. 3
- **CMM 2410 Intro to 3-D Programming OR** .................................................. (6)
- **CMM 244 Advanced Programming/Setup Practices** .................................................. (6)
- **BRX 110 Basic Blueprint Reading for Machinist AND** .................................................. 2
- **BRX 210 Mechanical Blueprint Reading for Machinist OR** .................................................. 2
- **BRX 112 Blueprint Reading for Machinist** .................................................. (4)

| **Subtotal** | 36-39 |
| **Total Credits** | 55-58 |

### Certificates

#### Exploratory Machining I - 4805033199

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

| CMM 110 Fundamental Machine Tools A AND | 3 |
| CMM 112 Fundamental Machine Tools B OR | 3 |
| CMM 114 Fundamentals of Machine Tools | (6) |
| CMM 118 Metrology/Control Charts | 2 |
| CMM 120 Applied Machining I AND | 3 |
| CMM 122 Applied Machining II OR | 3 |
| CMM 124 Applied Machining | (6) |
| CMM 130 Manual Programming AND | 3 |
| CMM 132 CAD/CAM/CNC OR | 3 |
| CMM 134 Manual Programming/CAD/CAM/CNC OR | (6) |
| CMM 138 Intro to Programming & CNC Machines | (6) |
| CMM 210 Industrial Machining I AND | 3 |
| CMM 212 Industrial Machining II OR | 3 |
| CMM 214 Industrial Machining | (6) |
| CMM 220 Advanced Industrial Machining I AND | 4 |
| CMM 222 Advanced Industrial Machining II OR | 2 |
| CMM 224 Advanced Industrial Machining | (6) |
| CMM 2301 Intro to Conversational Programming AND | 3 |
| CMM 2302 Conversational Editing and Subroutines OR | 3 |
| CMM 2303 Conversational Programming OR | (6) |
| CMM 234 CNC Machines and Coding Practices | (6) |
| CMM 2401 Intro to 3-D Code Sequencing and Tool path Production AND | 3 |
| CMM 2402 Advanced 3-D Code Sequencing and Macro Systems OR | 3 |
| CMM 2410 Intro to 3-D Programming OR | (6) |
| CMM 244 Advanced Programming/Setup Practices | (6) |
| BRX 110 Basic Blueprint Reading for Machinist AND | 2 |
| BRX 210 Mechanical Blueprint Reading for Machinist OR | 2 |
| BRX 112 Blueprint Reading for Machinist | (4) |

| **Subtotal** | 48-51 |
| **Total Credits** | 55-58 |

#### Machine Tool Operator I - 4805033109

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

| CMM 110 Fundamental Machine Tools A AND | 3 |
| CMM 112 Fundamental Machine Tools B OR | 3 |
| CMM 114 Fundamentals of Machine Tools | (6) |
| CMM 130 Manual Programming AND | 3 |
| CMM 132 CAD/CAM/CNC OR | 3 |
| CMM 134 Manual Programming/CAD/CAM/CNC OR | (6) |
| CMM 138 Intro to Programming & CNC Machines | (6) |
| BRX 110 Basic Blueprint Reading for Machinist AND | 2 |
| BRX 112 Blueprint Reading for Machinist | (4) |

| **Subtotal** | 11-12 |
| **Total Credits** | 17-19 |
Machine Tool Operator II - 4805033119
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWY, SEC, SKY, SMC, WKC)

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<td>CMM 112</td>
<td>Fundamentals of Machine Tools B OR</td>
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<td>CMM 114</td>
<td>Fundamentals of Machine Tools OR</td>
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<td>CMM 118</td>
<td>Metrology/Control Charts</td>
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<td>CMM 120</td>
<td>Applied Machining LAND</td>
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<td>Applied Machining II OR</td>
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CNC Operator - 4805033129
(Offered at BLC, HPC, JFC, SEC, SMC, WKC)

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<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist OR</td>
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<td>BRX 112</td>
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Tool & Die Apprentice - 4805033130
(Offered at BLC, JFC, SEC)

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<td>Machinery’s Handbook/Metallurgy OR</td>
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<td>CMM 152</td>
<td>Jigs, Fixtures and Gaging OR</td>
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<td></td>
<td>Special Problems III</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>29–34</td>
</tr>
</tbody>
</table>

CNC Machining & Waterjet Technology - 4805033189
(Offered at BLC, SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 138</td>
<td>Intro to Programming &amp; CNC Machines</td>
<td>6</td>
</tr>
<tr>
<td>CMM 234</td>
<td>CNC Machines &amp; Coding Practices</td>
<td>6</td>
</tr>
<tr>
<td>CMM 244</td>
<td>Advance Programming/Setup Practices</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

* Computer/Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course

Construction Technology

The Construction Technology program is designed to prepare students for entry level positions in the construction industry. Residential and light commercial construction applications are taught. This program includes instructional units in blueprint reading, building site layout procedures, foundation systems, light framing construction methods, exterior and interior finish systems, concrete forming systems and construction safety. Units of instruction are designed to include lecture and practical experience in the lab or on-site projects. This program also offers an excellent prerequisite for students that plan to pursue a career in areas such as construction management, civil engineering or architectural design.

The Green Building Technology certificate familiarizes students with the principles of green building technologies and methods of sustainable construction. Emphasis is placed on green materials used in the construction of buildings along with alternative and/or renewable energy systems. Covers both Leadership in Energy and Environmental Design (LEED) and the National Green Building Standard’s rating systems for the certification process of green buildings.

Progression in the Construction Technology Program is contingent upon achievement of a grade of “C” or better in each technical and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Construction Technology - 4602017029
(Offered at BLC, ELC)

General Education Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Higher level Quantitative Reasoning course</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Oral Communications</td>
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</tr>
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<td><strong>Subtotal</strong></td>
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<td>18</td>
</tr>
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</table>

Technical Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading For Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
</tr>
<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
<td>3</td>
</tr>
<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I</td>
<td>3</td>
</tr>
<tr>
<td>CAR 191</td>
<td>Light Frame Const. I-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II</td>
<td>3</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Const. II-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 200</td>
<td>Light Frame Construction III</td>
<td>3</td>
</tr>
<tr>
<td>CAR 201</td>
<td>Light Frame Const. III-Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits 18
CAR 298 Practicum in Construction OR……………………………….. 2
CAR 299 Co-op in Construction……………………………………… (2-4)
ISX 100 Industrial Safety………………………………………………… 3
Technical Electives* …………………………………………………….. 10
Subtotal 42-47
Total 60-65

Note: Digital Literacy must be demonstrated either by competency exam or by completing
an approved digital literacy course.

*Technical Electives: (This list is not all inclusive. Other
courses [technical or general education] may be taken as
approved by Construction Technology instructor.)
BRX 120 Basic Blueprint Reading………………………………………. 3
CAR 150 Construction Formwork……………………………………… 3
CAR 151 Construction Formwork - Lab……………………………….. 2
CAR 198 Special Topics in Construction……………………………… 1 - 6
CAR 240 Light Frame Construction IV………………………………… 3
CAR 241 Light Frame Const. IV-Lab…………………………………….. 2

Diploma
Construction Carpenter - 4602014019
(Offered at BLC, BSC, ELC, JFC, MYC, SEC, SMC)

General Education Requirements:
Area 1:
Written Communication, Oral
Communications, or Humanities/Heritage ………………………… 3

Area 2:
Social/Behavioral Sciences, Natural
Sciences, or Quantitative Reasoning ……………………………….. 3
Subtotal 6

Technical Requirements:
Digital Literacy course OR demonstrated competency……….. 0-3
INF 105 Introduction to Painting……………………………………….. 2
INF 111 Advanced Painting…………………………………………… 2
INF 115 Introduction to Wall covering………………………………... 2
INF 121 Advanced Wall Covering…………………………………….. 2
INF 125 Introduction to Drywall ……………………………………….. 2
INF 131 Advanced Drywall …………………………………………… 2
INF 205 Introduction to Acoustical Carpentry……………………….. 3
INF 211 Advanced Acoustical Carpentry…………………………….. 2
INF 220 Customer Relations…………………………………………… 2
INF 298 Practicum (or) ……………………………………………………. 2
CAR 299 Cooperative Education in Construction………………….. (2-4)

Subtotal 24-29
Total Credits 30-35

Note: Digital Literacy must be demonstrated either by competency exam or by completing
an approved digital literacy course.

Certificates
Carpenter Helper - 4602013109
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

Technical Requirements:
Digital Literacy course OR demonstrated competency……….. 0-3
BRX 220 Blueprint Reading for Construction……………………….. 3
CAR 126 Intro to Construction …………………………………………… 3
CAR 127 Intro to Construction-Lab ……………………………………… 1
CAR 140 Surveying & Foundations ……………………………………… 3
CAR 141 Surveying & Foundations-Lab ………………………………… 2
CAR 190 Light Frame Construction I …………………………………… 3
CAR 191 Light Frame Const. I-Lab ……………………………………….. 2
CAR 196 Light Frame Construction II ………………………………….. 3
CAR 197 Light Frame Const. II-Lab ………………………………………. 2
CAR 200 Light Frame Construction III ………………………………… 3
CAR 201 Light Frame Const. III-Lab …………………………………….. 2
CAR 298 Practicum in Construction OR……………………….. 2
CAR 299 Co-op in Construction ……………………………………….. (2-4)
ISX 100 Industrial Safety………………………………………………… (3)
Technical Electives* …………………………………………………….. 6
Subtotal 42-47
Total Credits 17

Construction Forms Helper - 4602013029
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

Technical Requirements:
Digital Literacy course OR demonstrated competency……….. 0-3
BRX 220 Blueprint Reading for Construction……………………….. 3
CAR 126 Intro to Construction …………………………………………… 3
CAR 127 Intro to Construction-Lab ……………………………………… 1
CAR 140 Surveying & Foundations ……………………………………… 3
CAR 141 Surveying & Foundations-Lab ………………………………… 2
CAR 190 Light Frame Construction I – Floors and Walls …………….. 3
CAR 191 Light Frame Construction I – Floors and Walls (Lab) ……… 2

Total Credits 18

*Technical Electives: (This list is not all inclusive. Other
courses [technical or general education] may be taken as
approved by Construction Technology Program Coordinator.)
BRX 120 Basic Blueprint Reading……………………………………….. (3)
ISX 100 Industrial Safety…………………………………………………… (3)
CAR 140 Construction Surveying and Foundation Systems……….. (3)
CAR 141 Construction Surveying and Foundation Systems-Lab ……(2)
CAR 150 Construction Formwork ……………………………………….. (3)
CAR 151 Construction Formwork - Lab ………………………………… (2)
CAR 190 Light Frame Construction I – Floors and Walls …………….. (3)
CAR 191 Light Frame Construction I – Floors and Walls-Lab …………. (2)
### Electives: Suggested Technical Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
</tr>
<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
</tr>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
</tr>
<tr>
<td>CAR 241</td>
<td>Light Frame Construction IV-Cabinetry and Trim Carpentry Techniques (Lab)</td>
</tr>
<tr>
<td>DLC 100</td>
<td>Digital Literacy</td>
</tr>
</tbody>
</table>

Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.

### Residential Carpenter - 4602013059

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
</tr>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
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<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
</tr>
<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
</tr>
<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
</tr>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I - Floors and Walls</td>
</tr>
<tr>
<td>CAR 191</td>
<td>Light Frame Construction I - Floors and Walls (Lab)</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II - Ceilings and Roofs</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Construction II - Ceilings and Roofs (Lab)</td>
</tr>
<tr>
<td>CAR 200</td>
<td>Light Frame Construction III - Exterior and Interior Finish</td>
</tr>
<tr>
<td>CAR 201</td>
<td>Light Frame Construction III - Exterior and Interior Finish (Lab)</td>
</tr>
<tr>
<td>CAR 240</td>
<td>Light Frame Construction IV - Cabinetry and Trim Carpentry Techniques (Lab)</td>
</tr>
<tr>
<td>CAR 241</td>
<td>Light Frame Construction IV - Cabinetry and Trim Carpentry Techniques</td>
</tr>
</tbody>
</table>

**Total Credits: 32**

### Residential Roofer - 4602013069

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
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<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II - Ceilings and Roofs</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Construction II - Ceilings and Roofs (Lab)</td>
</tr>
</tbody>
</table>

**Total Credits: 12**

### Residential Site Layout Assistant - 4602013079

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
</tr>
<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
</tr>
<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
</tr>
</tbody>
</table>

Electives: *Suggested Technical Electives* 6

**Total Credits: 15**

### Suggested General Education Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
</tr>
<tr>
<td>COM 252</td>
<td>Intro to Interpersonal Communications</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
</tr>
<tr>
<td>PHX 150</td>
<td>Introductory Physics</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management</td>
</tr>
<tr>
<td>WPP 200</td>
<td>Workplace Principles</td>
</tr>
</tbody>
</table>

Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.

### Rough Carpenter - 4602013089

(Offered at BSC, ELC, HZC, JFC, SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
</tr>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
</tr>
<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
</tr>
<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
</tr>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I - Floors and Walls</td>
</tr>
<tr>
<td>CAR 191</td>
<td>Light Frame Construction I - Floors and Walls (Lab)</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II - Ceilings and Roofs</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Construction II - Ceilings and Roofs (Lab)</td>
</tr>
</tbody>
</table>

**Total Credits: 22**

### Basic Carpenter - 4602013139

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
</tr>
</tbody>
</table>

Electives: (Any five [5] additional credits, program or otherwise) 5

**Total Credits: 9**

### Acoustical Carpenter - 4602013119

(Offered at BSC, ELC, HZC, JFC, SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>INF 205</td>
<td>Introduction to Acoustical Carpentry</td>
</tr>
<tr>
<td>INF 211</td>
<td>Advanced Acoustical Carpentry</td>
</tr>
</tbody>
</table>

Electives: *Technical Electives* 6

**Total Credits: 11**
Cosmetology

Knowledge of the theories of hair, skin, and nail care is coupled with practice of the various techniques used in salons.

Any person enrolling in a cosmetology program shall meet KCTCS admission requirements and complete an application for enrollment provided by the Board of Hairdressers and Cosmetologists. As required by the Board of Hairdressers and Cosmetologists, the applicant shall furnish proof that he or she has earned a high diploma or its equivalent.

Documentation of digital literacy as defined by KCTCS is required prior to graduation for the diploma credential.

Progression in the Cosmetology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

After successful completion of the prescribed 1800 hours of instruction and the six-month apprenticeship, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed cosmetologists.

After successful completion of the prescribed 1000 hours of instruction, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed cosmetology instructors.

After successful completion of the prescribed 600 hours of instruction, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed nail technicians.

After successful completion of the prescribed 1000 hours of instruction, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed estheticians.

Diploma

Cosmetologist - 1204014019
(Offered at ASC, BLC, BSC, GTW, HZC, JFC, SMIC, WKC)

General Education:
Area 1 =
Written Communication, Oral Communications, or Humanities/Heritage ........................................ 3
Area 2 =
Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ........................................ 3
Subtotal ........................................ 6

NOTE: Documentation of digital literacy as defined by KCTCS is required prior to graduation.

Technical Courses:
COS 114 Cosmetology I ........................................ 14
COS 116 Cosmetology II ........................................ 14
COS 218 Cosmetology III ...................................... 14
COS 220 Cosmetology IV ....................................... 12
Subtotal ........................................ 54
Total Credits ........................................ 60

Electives:
COS 135 Individual Requirements I .......................... 1-8
COS 235 Individual Requirements II .......................... 1-8
The Criminal Justice Program prepares the student for entry level work in the fields of law enforcement, corrections, court systems, loss safety and prevention, and other related occupations. The Criminal Justice vocations evolved from jobs with minimal requirements to employment positions that require complex knowledge and skills. Criminal Justice Program Curriculum provides the student with a foundation of theory, principles, and techniques employed by the criminal justice agencies. Graduates who complete an AAS Criminal Justice Degree may seek job opportunities on the federal, state, county, municipal levels of government, and private sectors of the criminal justice field.

Progression in the Criminal Justice Program is contingent upon the achievement of a grade of “C” or better in each CRJ course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

The grading scale for criminal justice courses with a Pass/Fail scale, the grade of “P or Pass” meets the requirement for the Criminal Justice Program.

Criminal Justice Program Certificates are embedded in the Criminal Justice AAS Degree. The certificates are not stand alone certificates; therefore a student cannot receive financial aid for just a certificate. The student must be a Criminal Justice AAS Degree seeker in order to obtain program certificates.

Criminal background checks are currently not required for the Criminal Justice AAS Program; however students should understand that certain disqualifiers may hinder employment in the field of criminal justice. Such disqualifiers include, but are not limited to the following: criminal convictions, substance abuse, offensive social media activities, excessive traffic related offenses, and visible tattoos and body piercings. Students seeking employment in the criminal justice field or related field should research the requirements and disqualifiers of their desired areas or agencies of employment.

**Associate in Applied Science**

**Criminal Justice - 4301037039**

*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)*

**Available Completely Online**

**General Education:**

- ENG 101 Writing I ................................. 3
- ENG 102 Writing II ............................... 3
- COM 181 Basic Public Speaking OR ......... 3
- COM 252 Introduction to Interpersonal Communication (3)
- Quantitative Reasoning Course ................. 3
- Natural Sciences Course ........................ 3
- Heritage/Humanities Course .................... 3
- POL 101 American Government OR .......... 3
- POL 255 State Government ....................... 3
- PSY 110 General Psychology ................... 3
- SOC 101 Introduction to Sociology ............. 3
- Elective Courses (Can be Technical or General Education Elective courses) ............... 6
- **Subtotal** ........................................ 33

Digital Literacy OR General Education Elective ............. 3
(Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course; if student does not have to take a digital literacy class then the student must choose a general education elective for the completion of the three (3) hours).

- **Subtotal** ........................................ 3

**Technical Core Requirements:**

- CRJ 100 Introduction to Criminal Justice .......... 3
- CRJ 202 Issues and Ethics in Criminal Justice .......... 3
- CRJ 204 Criminal Investigations .................. 3
- CRJ 216 Criminal Law ................................ 3
- CRJ 217 Criminal Procedures ..................... 3
- CRJ 295 Criminal Justice Capstone ............... 1
- **Subtotal** ........................................ 16

**Criminal Justice Track - 430103701**

*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)*

**Track Electives: (Choose 9 credit hours from the following courses)**

- CRJ 102 Introduction to Corrections ................ 3
- CRJ 108 Advanced Firearms and Less Than Lethal Weapons .......... 4
- CRJ 110 Principles of Asset Protection ............. 3

129
CRJ 201 Introduction to Criminalistics ........................................ 3
CRJ 203 Community Corrections/Probation & Parole ....................... 3
CRJ 208 Delinquency and the Juvenile Justice System .................... 3
CRJ 210 Physical Security Technology and Systems ....................... 3
CRJ 211 Liability and Legal Issues ............................................. 3
CRJ 215 Introduction to Law Enforcement .................................... 3
CRJ 218 Police Supervision ..................................................... 3
CRJ 219 Police Recruit Defensive Tactics ...................................... 4
CRJ 220 Introduction to Computer Forensics ................................. 3
CRJ 222 Prison and Jail Administration ....................................... 3
CRJ 224 Basic Traffic Collision Investigation ................................. 4
CRJ 225 Driving and Traffic Enforcement for Law Enforcement ........ 4
CRJ 230 Criminal Justice Courtroom Procedures ......................... 3
CRJ 231 Legal Aspects of Corrections ......................................... 3
CRJ 240 Introduction to Corporate and Industrial Security ............... 3
CRJ 245 Introduction to Business and Financial Fraud .................... 3
CRJ 277 Introduction to Criminology .......................................... 3
CRJ 279 Terrorism and Political Violence .................................... 3
CRJ 290 Internship in Criminal Justice ....................................... 3
CRJ 299 Selected Topics in Criminal Justice ................................. 1-3
Subtotal ............................................................................... 9

Technical Elective ..................................................................... 0-3
Subtotal ............................................................................... 0-3

Total Credits 61-64

Law Enforcement Track - 430103702
(Offered at ASC, BLC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SMC, WKC)

Available Completely Online

Required Course:
CRJ 215 Introduction to Law Enforcement .................................... 3
Subtotal ............................................................................... 3

Track Electives: (Choose 6 credit hours from the following courses)
CRJ 108 Advanced Firearms and Less Than Lethal Weapons ............ 4
CRJ 201 Introduction to Criminalistics ........................................ 3
CRJ 208 Delinquency and the Juvenile Justice System .................... 3
CRJ 218 Police Supervision ..................................................... 3
CRJ 219 Police Recruit Defensive Tactics ...................................... 4
CRJ 220 Introduction to Computer Forensics ................................. 3
CRJ 224 Basic Traffic Collision Investigation ................................. 4
CRJ 225 Driving and Traffic Enforcement for Law Enforcement ........ 4
CRJ 230 Criminal Justice Courtroom Procedures ......................... 3
CRJ 277 Introduction to Criminology .......................................... 3
CRJ 279 Terrorism and Political Violence .................................... 3
CRJ 290 Internship in Criminal Justice ....................................... 3
CRJ 299 Selected Topics in Criminal Justice ................................. 1-3
Subtotal ............................................................................... 9

Technical Elective ..................................................................... 0-3
Subtotal ............................................................................... 0-3

Total Credits 61-64

Corrections Track - 430103703
(Offered at ASC, BLC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SMC, WKC)

Required:
CRJ 102 Introduction to Corrections .......................................... 3
Subtotal ............................................................................... 3

Track Electives: (Choose 6 credit hours from the following courses)
CRJ 203 Community Corrections/Probation & Parole ....................... 3
CRJ 208 Delinquency and the Juvenile Justice System .................... 3
CRJ 220 Introduction to Computer Forensics ................................. 3
CRJ 222 Prison and Jail Administration ....................................... 3

CRJ 231 Legal Aspects of Corrections ......................................... 3
CRJ 277 Introduction to Criminology .......................................... 3
CRJ 290 Internship in Criminal Justice ....................................... 3
CRJ 299 Selected Topics in Criminal Justice ................................. 1-3
Subtotal ............................................................................... 9

Technical Elective ..................................................................... 0-3
Subtotal ............................................................................... 0-3

Total Credits 61-64

Security and Loss Prevention Track - 430103704
(Offered ASC, BLC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SMC, WKC) Available Completely Online

Required course:
CRJ 110 Principles of Asset Protection ......................................... 3
Subtotal ............................................................................... 3

Track Electives: (Choose 6 credit hours from the following courses)
CRJ 210 Physical Security Technology and Systems ....................... 3
CRJ 211 Liability and Legal Issues .............................................. 3
CRJ 220 Introduction to Computer Forensics ................................. 3
CRJ 240 Introduction to Corporate and Industrial Security ............... 3
CRJ 245 Introduction to Business and Financial Fraud .................... 3
CRJ 290 Internship in Criminal Justice ....................................... 3
CRJ 299 Selected Topics in Criminal Justice ................................. 1-3
Subtotal ............................................................................... 9

Technical Elective ..................................................................... 0-3
Subtotal ............................................................................... 0-3

Total Credits 61-64

NOTE: CRJ 107 Introduction to Firearms I may be used as a technical elective only. Course will not substitute for track elective.

Certificates

Computer Forensics - 4301033019
(Offered ASC, BLC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SMC, WKC)

CRJ 100 Introduction to Criminal Justice ................................. 3
CRJ 204 Criminal Investigations ............................................... 3
CRJ 220 Introduction to Computer Forensics ................................. 3
CRJ 230 Criminal Justice Courtroom Procedures ......................... 3
CIT 105 Introduction to Computers ........................................... 3
CIT 111 Computer Hardware and Software ................................ 4
CIT 160 Introduction to Networking Concepts ............................ 4
CIT 161 Introduction to Networks ............................................. 4
CIT 180 Security Fundamentals .............................................. 3
Total ............................................................................... 23

Criminal Justice Core – 4301033029
(Offered ASC, BLC, ELC, GTW, HPC, JFC, MYC, SEC, SMC, WKC)

CRJ 100 Introduction to Criminal Justice ................................. 3
CRJ 202 Issues and Ethics in Criminal Justice ......................... 3
CRJ 204 Criminal Investigations ............................................... 3
CRJ 216 Criminal Law ............................................................ 3
CRJ 217 Criminal Procedures ................................................. 3
Total ............................................................................... 15

Corrections – 4301033039
(Offered ASC, BLC, ELC, GTW, HPC, JFC, MYC, SEC, SMC, WKC)

CRJ 102 Introduction to Corrections .......................................... 3
CRJ 203 Community Corrections/Probation & Parole .................... 3
CRJ 208 Delinquency and the Juvenile Justice System .................. 3
CRJ 222 Prison and Jail Administration ....................................... 3
CRJ 231 Legal Aspects of Corrections ......................................... 3
Total ............................................................................... 15
Law Enforcement – 4301033049
(Offered ASC, BSC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

| CRJ | 201 | Introduction to Criminalistics OR | 3 |
| CRJ | 204 | Criminal Investigations | 3 |
| CRJ | 208 | Delinquency and Juvenile Justice System | 3 |
| CRJ | 211 | Liability and Legal Issues | 3 |
| CRJ | 215 | Introduction to Law Enforcement | 3 |
| CRJ | 218 | Police Supervision | 3 |
| **Total** | 15 |

Security and Loss Prevention – 4301033059
(Offered ASC, BSC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

| CRJ | 110 | Principles of Asset Protection | 3 |
| CRJ | 210 | Physical Security Technology & Systems | 3 |
| CRJ | 211 | Liability and Legal Issues | 3 |
| CRJ | 220 | Introduction to Corporate Forensics | 3 |
| CRJ | 240 | Introduction to Corporate Security | 3 |
| **Total** | 15 |

Advanced Law Enforcement – 4301033069
(Offered ASC, BSC, BLC, HPC, MDC, MYC, OWC, SEC, SMC)

| CRJ | 107 | Introduction to Firearms | 1 |
| CRJ | 108 | Advanced Firearms and Less Than Lethal Weapons | 4 |
| CRJ | 204 | Criminal Investigations | 3 |
| CRJ | 215 | Introduction to Law Enforcement | 3 |
| CRJ | 219 | Police Recruit Defensive Tactics | 4 |
| CRJ | 224 | Basic Traffic Collision Investigation | 4 |
| CRJ | 225 | Driving and Traffic Enforcement for Law Enforcement | 4 |
| **Total** | 23 |

Culinary Arts

The KCTCS Culinary Arts program is designed to prepare students for careers in the Culinary Arts, Food and Beverage Management, Restaurant Management, Catering, Institutional Food Service, and as Professional Chefs. Course work covers a broad spectrum: the preparation of basic and specialized foods, catering and special event planning, international cuisine, baking and pastry arts, nutrition, sanitation, management techniques and functions, cost control, purchasing and culinary fundamentals. Students work in commercial kitchen/laboratory and dining room through the course of study. The program uses the teaching philosophy of the American Culinary Federation, the Academy of Chefs, the National Restaurant Association Education Foundation, and the American Personal Chef Association. The program competencies are those of the American Culinary Federation.

Progression in the Culinary Arts program is contingent upon achievement of a grade of "C" or better in each CUL and NFS courses.

Associate in Applied Science

Culinary Arts - 1205037029
(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

**General Education**

- Quantitative Reasoning ........................................... 3
- Natural Sciences ................................................. 3
- Social/Behavioral Sciences ................................... 3
- Heritage/Humanities ........................................... 3
- Written Communication ...................................... 3
- Oral Communications ......................................... 3
- **Required General Education Hours** 18

Culinary Arts Technical Core

| CUL | 100 | Introduction to Culinary Arts OR | 2 |
| CUL | 105 | Applied Introduction to Culinary Arts | 2 |
| CUL | 250 | Garde Manger | 4 |
| CUL | 125 | Sanitation and Safety | 2 |
| CUL | 211 | Basic Food Production | 4 |
| CUL | 215 | Basic Baking | 4 |
| CUL | 230 | Basic Nutrition OR | 3 |
| NFS | 101 | Human Nutrition and Wellness | 3 |
| CUL | 240 | Meats, Seafood, and Poultry | 4 |
| CUL | 270 | Human Relations Management | 3 |
| CUL | 280 | Cost and Control | 3 |
| CUL | 285 | Front of the House OR | 3 |
| CUL | 290 | Front of the House/Catering | 4 |
| **Digital Literacy** | | | 0-3 |
| **Required Technical Core Hours** | | | 32-36 |

* Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Culinary Arts Degree Track - 120503702
(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

| CUL | 220 | Advanced Baking and Pastry Arts | 4 |
| CUL | 260 | International and Classical Cuisine | 4 |
| CUL | 298 | Culinary Arts Practicum Experience OR | 2-3 |
| CUL | 299 | Culinary Arts Cooperative Education Experience | 2-3 |
| **Total Hours** | 60-65 |

Food and Beverage Management Degree Track - 120503703
(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

| BAS | 160 | Introduction to Business | 3 |
| BAS | 170 | Entrepreneurship OR | 3 |
| BAS | 283 | Principles of Management | 3 |
| BAS | 282 | Principles of Marketing | 3 |
| CUL | 298 | Culinary Arts Practicum Experience OR | 2-3 |
| CUL | 299 | Culinary Arts Cooperative Education Experience | 2-3 |
| **Total Hours** | 61-66 |

Catering and Personal Chef Degree Track - 120503701
(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

| BAS | 160 | Introduction to Business AND | 3 |
| BAS | 295 | Doing Business as a Personal Chef OR | 3 |
| BAS | 296 | Introduction to Business AND | 3 |
| BAS | 283 | Principles of Management | 3 |
| CUL | 298 | Culinary Arts Practicum Experience OR | 2-3 |
| CUL | 299 | Culinary Arts Cooperative Education Experience | 2-3 |
| **Total Hours** | 62-67 |

Diplomas

Culinary Arts - 1205034029
(Offered at ASC, BSC, ELC, JFC, MYC, SMC, WKC)

**General Education***

- Area 1 = Written/Oral Communications, Humanities, or Heritage ................................................................ 3
- Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ........................................... 3
- **Subtotal** ................................................................................................................................................. 6

* If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:

  - WPP 200 Workplace Principles (Area 2) OR ...................................................................................... 3
  - EFM 100 Personal Financial Management (Area 2) ........................................................................... 3
  - TEC 200 Technical Communications (Area 1) .................................................................................. 3
**Technical or Support Courses**

- **CUL 220** Advanced Baking and Pastry Arts ................................................. 4
- **CUL 260** International and Classical Cuisine ............................................. 4
- **CUL 298** Culinary Arts Practicum Experience OR ........................................ 2-3
- **CUL 299** Culinary Arts Cooperative Education Experience .......................... (2-3)
  
**Technical/Support Total** 42-47

**Total Hours for Culinary Arts Diploma** 48-53

**Food and Beverage Management - 1205034039**

*(Offered at ASC, BSC, ELC, MYC, SKY, SMC, WKC)*

**General Education***

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Written/Oral Communications, Humanities, or Heritage</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal** 6

* If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:

- **WPP 200** Workplace Principles (Area 2) OR ............................................. 3
- **EFM 100** Personal Financial Management (Area 2) .................................. (3)
- **TEC 200** Technical Communications (Area 1) ............................................. 3

**Technical or Support Courses**

- **CUL 297** Advanced Baking and Pastry Arts ............................................. 4
- **BAS 170** Entrepreneurship AND ............................................................... 3
- **CUL 295** Doing Business as a Personal Chef OR ...................................... 3
- **BAS 160** Introduction to Business AND .................................................. (3)
- **BAS 283** Principles of Management .......................................................... (3)
- **CUL 298** Practicum Experience OR .......................................................... 2-3
- **CUL 299** Cooperative Education ............................................................... (2-3)

**Technical Support Total** 44-49

**Total Hours** 50-55

---

**Certificates**

**Fundamentals of Culinary Arts - 1205033029**

*(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>CUL</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Introduction to Culinary Arts</td>
<td>2</td>
</tr>
<tr>
<td>105</td>
<td>Applied Introduction to Culinary Arts</td>
<td>(2)</td>
</tr>
<tr>
<td>250</td>
<td>Garde Manger</td>
<td>4</td>
</tr>
<tr>
<td>125</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>211</td>
<td>Basic Food Production</td>
<td>4</td>
</tr>
<tr>
<td>215</td>
<td>Basic Baking</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Hours** 16

**Catering - 1205033059**

*(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>CUL</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Introduction to Culinary Arts</td>
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<tr>
<td>105</td>
<td>Applied Introduction to Culinary Arts</td>
<td>(2)</td>
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<tr>
<td>250</td>
<td>Garde Manger</td>
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<tr>
<td>125</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>215</td>
<td>Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>290</td>
<td>Front of the House/Catering</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Hours** 16

**Advanced Catering - 1205033079**

*(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>CUL</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>211</td>
<td>Basic Food Production</td>
<td>4</td>
</tr>
<tr>
<td>220</td>
<td>Advanced Baking and Pastry Arts</td>
<td>4</td>
</tr>
<tr>
<td>240</td>
<td>Meats, Seafood, Poultry</td>
<td>4</td>
</tr>
<tr>
<td>260</td>
<td>International and Classical Cuisine</td>
<td>4</td>
</tr>
<tr>
<td>270</td>
<td>Human Relations Management</td>
<td>3</td>
</tr>
<tr>
<td>280</td>
<td>Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>170</td>
<td>Entrepreneurship OR</td>
<td>3</td>
</tr>
<tr>
<td>160</td>
<td>Introduction to Business AND</td>
<td>(3)</td>
</tr>
<tr>
<td>283</td>
<td>Principles of Management</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Total Hours** 41-44

**Culinary Arts - 1205033049**

*(Offered at ASC, ELC, MYC, OWC, SKY, SMC, WKC)*

**Culinary Arts Technical Core** 32-36

**Total Hours** 32-36

**Advanced Culinary Arts - 1205033069**

*(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>CUL</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>105</td>
<td>Applied Fundamentals of the Culinary Arts Profession</td>
<td>(2)</td>
</tr>
<tr>
<td>125</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>211</td>
<td>Basic Food Production</td>
<td>4</td>
</tr>
<tr>
<td>215</td>
<td>Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>240</td>
<td>Meats, Seafood, Poultry</td>
<td>4</td>
</tr>
<tr>
<td>270</td>
<td>Human Relations Management OR</td>
<td>3</td>
</tr>
<tr>
<td>280</td>
<td>Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Digital Literacy**

<table>
<thead>
<tr>
<th>CUL</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>160</td>
<td>Digital Literacy</td>
<td>0.3</td>
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</tbody>
</table>

**Total Hours** 31-34

Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.
### Advanced Food and Beverage Management - 1205033089
(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>CUL 105</td>
<td>Applied Fundamentals of the Culinary Arts Profession</td>
<td>2</td>
</tr>
<tr>
<td>CUL 250</td>
<td>Garde Manger</td>
<td>4</td>
</tr>
<tr>
<td>CUL 125</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 211</td>
<td>Basic Food Production</td>
<td>4</td>
</tr>
<tr>
<td>CUL 215</td>
<td>Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>CUL 230</td>
<td>Basic Nutrition OR</td>
<td>3</td>
</tr>
<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>CUL 240</td>
<td>Meats, Seafood, and Poultry</td>
<td>4</td>
</tr>
<tr>
<td>CUL 270</td>
<td>Human Relations Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>CUL 290</td>
<td>Front of the House OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
</tr>
<tr>
<td>CUL 299</td>
<td>Culinary Arts Cooperative Education Experience</td>
<td>(2-3)</td>
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</tbody>
</table>

**Total Hours:** 43-45

### Culinary Arts Professional Development - 1205033099
(Offered at SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL</td>
<td>Students may choose 12 credit hours from any Culinary Arts courses*</td>
<td>12</td>
</tr>
</tbody>
</table>

*Prerequisites apply

### Baking-1205033109
(Offered at ASC, MYC, SKY, SMC,WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>CUL 105</td>
<td>Applied Fundamentals of the Culinary Arts Profession</td>
<td>2</td>
</tr>
<tr>
<td>CUL 125</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 215</td>
<td>Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>CUL 220</td>
<td>Advanced Baking</td>
<td>4</td>
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</tbody>
</table>

**Total Hours:** 12

### Dental Hygiene

This program prepares students to function as dental hygienists on a dental team under the general supervision of a dentist. The curriculum includes courses in general education and in dental hygiene as required by the Commission on Dental Accreditation and Kentucky state dental practice act. The program provides comprehensive educational experiences through lectures, clinical and related study in order that students may apply scientific knowledge in the performance of dental hygiene procedures. Students enrolled in the Dental Hygiene program must achieve a minimum grade of "C" in each Dental Hygiene and approved science course. Documentation of computer literacy as defined by KCTCS and Cardiopulmonary resuscitation (CPR) are required prior to admission to DHP courses.

### Associate in Applied Science

#### Dental Hygiene - 5106027019
(Offered at BLC)

### General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology 1*</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology 1*</td>
<td>4</td>
</tr>
<tr>
<td>BIO 226</td>
<td>Principles of Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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</tbody>
</table>

### Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>DHP 120</td>
<td>Dental Hygiene I*</td>
<td>4</td>
</tr>
<tr>
<td>DHP 121</td>
<td>Oral Biology I</td>
<td>3</td>
</tr>
<tr>
<td>DHP 122</td>
<td>Dental Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>DHP 130</td>
<td>Dental Hygiene II</td>
<td>3</td>
</tr>
<tr>
<td>DHP 131</td>
<td>Oral Biology II</td>
<td>5</td>
</tr>
<tr>
<td>DHP 135</td>
<td>Dental Radiology</td>
<td>3</td>
</tr>
<tr>
<td>DHP 136</td>
<td>Periodontics I</td>
<td>2</td>
</tr>
<tr>
<td>DHP 220</td>
<td>Dental Hygiene III</td>
<td>3</td>
</tr>
<tr>
<td>DHP 222</td>
<td>Special Needs Patients</td>
<td>3</td>
</tr>
<tr>
<td>DHP 224</td>
<td>Dental Materials</td>
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<td>DHP 226</td>
<td>Periodontics II</td>
<td>2</td>
</tr>
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<td>DHP 230</td>
<td>Dental Hygiene IV</td>
<td>3</td>
</tr>
<tr>
<td>DHP 235</td>
<td>Principles of Practice</td>
<td>1</td>
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<tr>
<td>DHP 238</td>
<td>Community Dental Health</td>
<td>3</td>
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</tbody>
</table>

**Total Credits:** 68

### Recommended Electives (Not Required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHP 229</td>
<td>Local Anesthesia</td>
<td>(2)</td>
</tr>
<tr>
<td>DHP 299</td>
<td>Independent Study Dental Hygiene</td>
<td>(1-4)</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>(3)</td>
</tr>
<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness</td>
<td>(3)</td>
</tr>
</tbody>
</table>

*The Dental Hygiene Program at BCTC requires that BIO 137 & BIO 139 or their equivalents be successfully completed with a grade of C or higher prior to beginning DHP 120.

**Documentation of computer/digital literacy as defined by KCTCS is required prior to admission to DHP courses. CPR certification for the healthcare provider must be obtained prior to enrolling in DHP 120 and certification must be kept current throughout the Program.

### Dental Assisting/Dental Hygiene Integrated Program

The Dental Assisting/Dental Hygiene Integrated Program prepares graduates to function as dental auxiliaries.

The Dental Assisting program prepares the student to function as a dental assistant under the supervision of a dentist. As a member of the dental health team, the dental assistant is responsible for providing such services as assisting the dentist with operative and surgical procedures, manipulation of dental materials, taking radiographs, providing oral health instructions and performing office management tasks.

Dental Assisting students will be awarded a Diploma in Dental Assisting and will be eligible to take the Dental Assisting National Board (DANB). Graduates will also be certified in radiation health and safety, coronal polishing and expanded duties (lab competency). The dental assisting curriculum includes courses in general education as well as dental assisting as required by the Commission on Dental Accreditation. The program provides comprehensive educational experiences through lectures, clinical externship rotations, laboratory and related study. Students must achieve a minimum grade of "C" in each Dental Assisting (DAS) course, Dental Assisting/Hygiene (DAH) course, and approved science courses.

The Dental Hygiene Program prepares the student to function as a dental hygienist on a dental auxiliary team under the supervision of a dentist. The curriculum includes content areas in general studies, biomedical sciences, dental sciences, clinical sciences, radiography, periodontology, and dental hygiene clinical experience. The program provides comprehensive...
educational experiences through lectures, clinical, and related study in order that graduates may apply scientific knowledge in the performance of dental hygiene procedures. Students must achieve a minimum grade of “C” in each Dental Hygiene (DHG) course, Dental Assisting/Hygiene (DAH) course, and approved science courses. Upon completion, graduates are eligible to apply to take the Dental Hygiene National Board Examination. As the only licensed dental auxiliaries, dental hygienists may be employed in dental offices, clinics, dental schools, public health and government agencies.

The programs are accredited by the Commission on Dental Accreditation, a specialized accrediting body of the American Dental Association. The commission is nationally recognized by the U.S. Department of Education to accredit dental and dental related educational programs at the post-secondary level.

**Associate in Applied Science**

**Dental Hygiene - 5106027040**

(Offered in West Consortium – Credential granted by Henderson CC but also taught at West KY CTC)

(Offered in East Consortium – Credential granted by Big Sandy CTC but also taught at Somerset CC)

**General Education Classes:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
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<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra and Functions</td>
<td>(3)</td>
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**Integrated Classes:**

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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DAH 101</td>
<td>Infection Control and Medical Emergencies</td>
<td>2</td>
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<tr>
<td>DAH 121</td>
<td>Dental Sciences</td>
<td>3</td>
</tr>
<tr>
<td>DAH 124</td>
<td>Materials in Dentistry</td>
<td>2</td>
</tr>
<tr>
<td>DAH 131</td>
<td>Oral Pathology</td>
<td>3</td>
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<tr>
<td>DAH 135</td>
<td>Oral Radiology</td>
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</tr>
<tr>
<td>DAH 235</td>
<td>Practice Management</td>
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**Subtotal** 33

**Dental Hygiene Only Classes:**

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<tr>
<td>DHG 120</td>
<td>Pre-Clinical Dental Hygiene</td>
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<tr>
<td>DHG 130</td>
<td>Clinical Dental Hygiene I</td>
<td>3</td>
</tr>
<tr>
<td>DHG 132</td>
<td>Pharmacology</td>
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<tr>
<td>DHG 134</td>
<td>Dental Nutrition</td>
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<tr>
<td>DHG 136</td>
<td>Periodontology</td>
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<tr>
<td>DHG 220</td>
<td>Clinical Dental Hygiene II</td>
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<tr>
<td>DHG 226</td>
<td>Advanced Periodontology</td>
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<tr>
<td>DHG 230</td>
<td>Clinical Dental Hygiene III</td>
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<tr>
<td>DHG 238</td>
<td>Community Dental Health Issues</td>
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</table>

**Subtotal** 22

**Total Credit Hours** 68

**Elective**

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>DHG 221</td>
<td>Local Anesthesia and Nitrous Oxide Sedation</td>
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</table>

**Diagnostic Medical Sonography**

Diagnostic Medical Sonography is a highly-skilled profession which uses specialized equipment to create images of structures inside the human body used by physicians to make medical diagnoses. Graduates of the program are qualified to provide patient services using diagnostic techniques under the supervision of a licensed physician.

This program contains four tracks, the general/vascular track, the general track, the vascular track and the cardiac track. The general/vascular track prepares the graduate to be a general sonographer who is qualified to perform vascular ultrasound. Sonographers have extensive, direct patient contact that may include performing some invasive procedures. The general track prepares the graduate to perform sonograms on the abdominal, small parts and OB/GYN applications. The vascular track prepares the graduate to perform sonograms on the cardiovascular, peripheral arterial, peripheral venous and abdominal vascular applications. The cardiac track prepares the graduate to perform cardiovascular sonograms.

Sectional anatomy, ultrasonic instrumentation and imaging are the major components in this program. Skills are developed through clinical experiences using diagnostic imagery equipment.

An advanced option (certificate) in vascular sonography is offered for candidates who are currently employed and registry eligible in Diagnostic Medical Sonography.

The student is exposed to and expected to acquire skills, attitudes, and habits that are generally common to all professionals in the medical field.
Graduates will be prepared for a professional career in the opted sonography field.

CPR requirement must be successfully completed prior to enrolling in the first sonography course and must be kept current throughout the program. Documentation of successful completion of a minimum 75 hour nursing assistant course or its equivalent and digital literacy competency as defined by KCTCS are required prior to enrolling in the first sonography course.

Progression in the Diagnostic Medical Sonography program is contingent upon achievement of a grade of “C” or better in each Sonography course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Transportation to the community agencies is the responsibility of each student.

Note: Hours Exception (67-76 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.

### Associate in Applied Science

#### Diagnostic Medical Sonography - 5109107019

(Offered at HZC, SKY, WKC)

<table>
<thead>
<tr>
<th>General Education:</th>
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<tbody>
<tr>
<td>MAT 150 College Algebra</td>
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<tr>
<td>ENG 101 Writing I</td>
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<tr>
<td>BBO 137 Human Anatomy and Physiology I AND</td>
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<td>BBO 139 Human Anatomy and Physiology II OR</td>
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<tr>
<td>BBO 134 Basic Anatomy and Physiology with Laboratory OR</td>
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<tr>
<td>PHY 151 Introductory Physics I OR</td>
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<tr>
<td>PHY 152 Introductory Physics II OR</td>
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<tr>
<td>PHY 171 Applied Physics</td>
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<td>19-24</td>
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#### General/Vascular Sonography Track – 510910705

(Offered at HZC, WKC)

| AHS 120 Medical Terminology | 1  |
| DMS 109 Sonography I        | 7  |
| DMS 115 Sonography II       | 6  |
| DMS 119 Ultrasonic Physics and Instrumentation | 6 |
| DMS 199 Online Physics Review AND/OR | 1 |
| DMS 201 Online Abdomen Review AND/OR | 1 |
| DMS 202 Online OB/GYN Review AND/OR | 1 |
| DMS 255 Vascular Technology | 6  |
| DMS 260 Vascular Clinical Education | 6 |
| A total of 17 credit hours must be completed from the following clinical courses: | 17 |
| DMS 126 Clinical Education I | (3-4) |
| DMS 230 Clinical Education II | (5-8) |
| DMS 240 Clinical Education III | (5-8) |
| Subtotal                    | 50-52 |
| Total                       | 69-76 |

#### Vascular Sonography Track – 510910707

| AHS 120 Medical Terminology | 1  |
| DMS 117 Vascular Sonography I | 7  |
| DMS 118 Vascular Sonography II | 6  |
| DMS 121 Sonography Physics and Instrumentation | 6 |
| DMS 136 Vascular Clinical Education I | 4  |
| DMS 199 Online Physics Review | 1  |
| DMS 204 Online Vascular Review | 2  |
| DMS 206 Online Vascular Sonography III | 3  |
| DMS 236 Vascular Clinical Education II | 8  |
| DMS 237 Vascular Clinical Education III | 5  |
| Subtotal                    | 43 |
| Total                       | 62-67 |

#### Cardiac Sonography Track – 510910708

| AHS 120 Medical Terminology | 1  |
| DMS 105 Introduction to Cardiology | 13 |
| DMS 145 Cardiac Sonography I | 12 |
| DMS 205 Cardiac Sonography II | 6  |
| DMS 215 Cardiac Sonography III | 6  |
| DMS 245 Cardiac Sonography IV | 6  |
| Subtotal                    | 44 |
| Total                       | 63-68 |

#### Certificates

#### Basic Vascular Sonography Technology – 5109103069

(Offered at SKY)

| DMS 280 Basic Vascular Technology | 3  |
| Total                            | 3  |

#### Cardiac Sonography – 5109103079

| DMS 105 Introduction to Cardiology | 13 |
| DMS 145 Cardiac Sonography I | 12 |
| DMS 205 Cardiac Sonography II | 6  |
| DMS 215 Cardiac Sonography III | 6  |
| DMS 245 Cardiac Sonography IV | 6  |
| Subtotal                        | 43 |

#### General Sonography -5109103089

| DMS 111 Abdominal Sonography | 7  |
| DMS 116 OB/GYN Sonography    | 6  |
| DMS 121 Sonography Physics and Instrumentation | 6 |
| DMS 199 Online Physics Review | 1  |
| DMS 201 Online Abdomen Review | 1  |
| DMS 202 Online OB/GYN Review | 1  |
| A total of 17 credit hours must be completed from the following clinical courses: | 17 |
| DMS 126 Clinical Education I | (3-4) |
| DMS 230 Clinical Education II | (5-8) |
| DMS 240 Clinical Education III | (5-8) |
| Total                         | 39  |
 Diesel Technology

Emphasizes the skills needed to analyze malfunctions and repair, rebuild and maintain construction equipment, agriculture equipment, or medium and heavy trucks in this program of study. Provides instruction and experience in systems such as diesel engines, fuel injection, onboard computers, transmissions, steering and suspension, and brakes.

A student must receive a grade of “C” or better to receive credit for successful completion of courses in the diesel technology curriculum.

Associate in Applied Science

Diesel Technology - 4706057039
(Offered at ELC, HPC, OWC, SEC)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
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<tr>
<td>Quantitative Reasoning</td>
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</tr>
<tr>
<td>Natural Sciences</td>
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<td></td>
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<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Heritage/Humanities</td>
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Technical Core:

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<tbody>
<tr>
<td>BEX 100</td>
<td>Basic Electricity for Non-Majors AND</td>
<td>3</td>
</tr>
<tr>
<td>BEX 101</td>
<td>Basic Electricity Lab for Non-Majors OR</td>
<td>2</td>
</tr>
<tr>
<td>ADX 120</td>
<td>Basic Automotive Electricity AND</td>
<td>2</td>
</tr>
<tr>
<td>ADX 121</td>
<td>Basic Automotive Electricity Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
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<tr>
<td>ADX 170</td>
<td>Climate Control</td>
<td>3</td>
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<tr>
<td>ADX 171</td>
<td>Climate Control Lab</td>
<td>1</td>
</tr>
<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
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</tr>
<tr>
<td>DIT 110</td>
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<td>Introduction to Diesel Engines Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>ADX 150</td>
<td>Engine Repair AND</td>
<td>3</td>
</tr>
<tr>
<td>ADX 151</td>
<td>Engine Repair Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 112</td>
<td>Diesel Engine Repair</td>
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</tr>
<tr>
<td>DIT 113</td>
<td>Diesel Engine Repair Lab</td>
<td>2</td>
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<tr>
<td>DIT 140</td>
<td>Hydraulics AND</td>
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<tr>
<td>DIT 141</td>
<td>Hydraulics Lab OR</td>
<td>2</td>
</tr>
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<td>FPX 100</td>
<td>Fluid Power AND</td>
<td>3</td>
</tr>
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<td>FPX 101</td>
<td>Fluid Power Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 150</td>
<td>Power Trains</td>
<td>3</td>
</tr>
<tr>
<td>DIT 151</td>
<td>Power Trains Lab</td>
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</tr>
<tr>
<td>DIT 190</td>
<td>Electrical Systems for Diesel Equipment AND</td>
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</tr>
<tr>
<td>DIT 191</td>
<td>Electrical Systems for Diesel Equipment Lab OR</td>
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</tr>
<tr>
<td>ADX 260</td>
<td>Electrical Systems AND</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
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<td></td>
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NOTE: Computer/Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course. If demonstrated by a competency exam, an additional three credit hour class must be taken.

Agriculture Diesel Technician Track - 470605701
(Offered at HPC, OW SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIT 152</td>
<td>Powertrain for Construction Equipment</td>
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<tr>
<td>DIT 153</td>
<td>Powertrain for Construction Equipment Lab</td>
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<tr>
<td>DIT 121</td>
<td>Introduction to Maintenance Welding Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
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</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 120</td>
<td>Shielded Metal Arc Welding (SMAW) AND</td>
<td>3</td>
</tr>
<tr>
<td>WLD 121</td>
<td>Shielded Metal Arc Welding (SMAW) Lab</td>
<td>2</td>
</tr>
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<td><strong>Subtotal</strong></td>
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</table>

Total | 62-64 |

Construction Equipment Technician Track - 470605702
(Offered at OW SEC)

<table>
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<th>Title</th>
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</thead>
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<tr>
<td>DIT 121</td>
<td>Introduction to Maintenance Welding Lab OR</td>
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<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
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</tr>
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<td>Shielded Metal Arc Welding (SMAW) AND</td>
<td>3</td>
</tr>
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<td>WLD 121</td>
<td>Shielded Metal Arc Welding (SMAW) Lab</td>
<td>2</td>
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<td>DIT 123</td>
<td>Undercarriage Lab</td>
<td>3</td>
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<td>DIT 152</td>
<td>Powertrain for Construction Equipment</td>
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<td>DIT 153</td>
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Total | 65-67 |

Medium and Heavy Truck Technician Track - 470605703
(Offered at ELC, OW SEC)

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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DIT 180</td>
<td>Brakes</td>
<td>3</td>
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<tr>
<td>DIT 181</td>
<td>Brakes Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 160</td>
<td>Steering and Suspension</td>
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<td>DIT 161</td>
<td>Steering and Suspension Lab</td>
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Total | 64 |

Recommended Technical Electives (Program Coordinator Approval required)

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<th>Title</th>
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<tr>
<td>DIT 180</td>
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<td>DIT 181</td>
<td>Brakes Lab</td>
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<td>DIT 160</td>
<td>Steering and Suspension</td>
<td>3</td>
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<tr>
<td>DIT 161</td>
<td>Steering and Suspension Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 105</td>
<td>Mechanical Concepts OR</td>
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<td>PMX 100</td>
<td>Precision Measurement</td>
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<tr>
<td>DIT 193</td>
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<td>Special Problems II</td>
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<td>DIT 197</td>
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<tr>
<td>DIT 299</td>
<td>Cooperative Education II</td>
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(Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)
Academic Curricula

Diplomas

Agriculture Equipment Technician - 4706054039
(Offered at ASC, BSC, HPC, MYC, OW, SEC, SMC, WKC)

General Education
Area 1 = Written Communication, Oral Communications, or Humanities/Heritage .................. 3
Area 2 = Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning .................. 3
Subtotal 6

Technical Courses
Computer/Digital Literacy course OR demonstrated competency .................................................. 0-3
ADX 170 Climate Control .................................................. 3
ADX 171 Climate Control Lab .............................................. 1
BEX 100 Basic Electricity for Non-Majors AND .................. 3
BEX 101 Basic Electricity Lab for Non-Majors OR .............. 2
ADX 120 Basic Automotive Electricity AND ......................... 3
ADX 121 Basic Automotive Electricity Lab OR ...................... 2
ELT 110 Circuits I .......................................................... 5
DIT 103 Preventive Maintenance Lab ................................. 2
DIT 110 Introduction to Diesel Engines AND ....................... 3
DIT 111 Introduction to Diesel Engines Lab OR ..................... 2
ADX 150 Engine Repair AND ............................................. 3
ADX 151 Engine Repair Lab ............................................... 2
DIT 112 Diesel Engine Repair ............................................ 3
DIT 113 Diesel Engine Repair Lab .................................... 2
DIT 150 Power Trains ..................................................... 3
DIT 151 Power Trains Lab ................................................. 2
DIT 152 Powertrain for Construction Equipment ................ 3
DIT 153 Powertrain for Construction Equipment Lab ........... 2
DIT 121 Introduction to Maintenance Welding Lab OR ......... 3
IMT 100 Welding for Maintenance AND ............................ 3
IMT 101 Welding for Maintenance Lab .............................. 2
WLD 120 Shielded Metal Arc-Welding (SMAW) AND .......... 3
WLD 121 Shielded Metal Arc-Welding (SMAW) Lab ............. 2
DIT 123 Undercarriage Lab ................................................ 3
DIT 140 Hydraulics AND .................................................. 3
DIT 141 Hydraulics Lab OR .............................................. 2
FPX 100 Fluid Power AND ............................................... 3
FPX 101 Fluid Power Lab ............................................... 2
DIT 190 Electrical Systems for Diesel Equipment AND ....... 3
DIT 191 Electrical Systems for Diesel Equipment Lab ........ 2
ADX 260 Electrical Systems AND ....................................... 3
ADX 261 Electrical Systems Lab ....................................... 2
Subtotal 47-52
Total 53-58

Medium and Heavy Truck Technician - 4706054049
(Offered at ASC, BSC, ELC, GT, HZC, MYC, OW, SEC, SMC, WKC)

General Education
Area 1 = Written Communication, Oral Communications, or Humanities/Heritage .................. 3
Area 2 = Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning .................. 3
Subtotal 6

Technical Courses
Computer/Digital Literacy course OR demonstrated competency .................................................. 0-3
ADX 170 Climate Control .................................................. 3
ADX 171 Climate Control Lab .............................................. 1
BEX 100 Basic Electricity for Non-Majors AND .................. 3
BEX 101 Basic Electricity Lab for Non-Majors OR .............. 2
DIT 152 Powertrain for Construction Equipment ................. 3
DIT 153 Powertrain for Construction Equipment Lab .......... 2
DIT 190 Electrical Systems for Diesel Equipment AND ....... 3
DIT 191 Electrical Systems for Diesel Equipment Lab ........ 2
ADX 120 Basic Automotive Electricity AND ......................... 3
ADX 121 Basic Automotive Electricity Lab OR ...................... 2
ELT 110 Circuits I .......................................................... 5
DIT 103 Preventive Maintenance Lab ................................. 2
DIT 110 Introduction to Diesel Engines AND ....................... 3
DIT 111 Introduction to Diesel Engines Lab OR ..................... 2
ADX 150 Engine Repair AND ............................................. 3
ADX 151 Engine Repair Lab ............................................... 2
DIT 112 Diesel Engine Repair ............................................ 3
DIT 113 Diesel Engine Repair Lab .................................... 2
DIT 150 Power Trains ..................................................... 3
DIT 151 Power Trains Lab ................................................. 2
DIT 152 Powertrain for Construction Equipment ................ 3
DIT 153 Powertrain for Construction Equipment Lab ........... 2
DIT 121 Introduction to Maintenance Welding Lab OR ......... 3
IMT 100 Welding for Maintenance AND ............................ 3
IMT 101 Welding for Maintenance Lab .............................. 2
WLD 120 Shielded Metal Arc-Welding (SMAW) AND .......... 3
WLD 121 Shielded Metal Arc-Welding (SMAW) Lab ............. 2
DIT 123 Undercarriage Lab ................................................ 3
DIT 140 Hydraulics AND .................................................. 3
DIT 141 Hydraulics Lab OR .............................................. 2
FPX 100 Fluid Power AND ............................................... 3
FPX 101 Fluid Power Lab ............................................... 2
DIT 190 Electrical Systems for Diesel Equipment AND ....... 3
DIT 191 Electrical Systems for Diesel Equipment Lab ........ 2
ADX 260 Electrical Systems AND ....................................... 3
ADX 261 Electrical Systems Lab ....................................... 2
Subtotal 46-49
Total 52-55

Construction Equipment Technician - 4706054019
(Offered at ASC, BSC, HZC, MYC, OW, SEC, WKC)

General Education
Area 1 = Written Communication, Oral Communications, or Humanities/Heritage .................. 3
Area 2 = Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning .................. 3
Subtotal 6

Technical Courses
Computer/Digital Literacy course OR demonstrated competency .................................................. 0-3
ADX 170 Climate Control .................................................. 3
ADX 171 Climate Control Lab .............................................. 1
BEX 100 Basic Electricity for Non-Majors AND .................. 3
BEX 101 Basic Electricity Lab for Non-Majors OR .............. 2
DIT 152 Powertrain for Construction Equipment ................. 3
DIT 153 Powertrain for Construction Equipment Lab .......... 2
DIT 190 Electrical Systems for Diesel Equipment AND ....... 3
DIT 191 Electrical Systems for Diesel Equipment Lab ........ 2
ADX 260 Electrical Systems AND ....................................... 3
ADX 261 Electrical Systems Lab ....................................... 2
Subtotal 46-49
Total 52-55

137
Recommended Technical Electives (Program Coordinator Approval required)

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<tr>
<th>Course</th>
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<tr>
<td>DIT 180</td>
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<td>DIT 181</td>
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<tr>
<td>DIT 160</td>
<td>Steering and Suspension</td>
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<td>DIT 161</td>
<td>Steering and Suspension Lab</td>
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<td>DIT 121</td>
<td>Introduction to Maintenance Welding Lab OR</td>
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<td>DIT 123</td>
<td>Undercarriage Lab</td>
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<td>DIT 152</td>
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<td>DIT 299</td>
<td>Cooperative Education II</td>
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(Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)

Certificate

Agriculture Equipment Mechanic Helper - 4706053109
(Offered at ASC, BSC, HPC, MYC, OWC, SEC, SMC, WKC)

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<tr>
<td>DIT 110</td>
<td>Introduction to Diesel Engines AND</td>
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<td>ADX 260</td>
<td>Electrical Systems AND</td>
<td>3</td>
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<td>ADX 261</td>
<td>Electrical Systems Lab OR</td>
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<td>DIT 190</td>
<td>Electrical Systems for Diesel Equipment AND</td>
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</tr>
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<td>DIT 112</td>
<td>Diesel Engine Repair</td>
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<td>DIT 113</td>
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<td>DIT 152</td>
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Construction Equipment Mechanic Helper - 4706053019
(Offered at ASC, BSC, HZC, MYC, OWC, SEC, WKC)

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<td>Engine Repair Lab OR</td>
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<td>DIT 110</td>
<td>Introduction to Diesel Engines AND</td>
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<td>ADX 260</td>
<td>Electrical Systems AND</td>
<td>3</td>
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<td>ADX 261</td>
<td>Electrical Systems Lab OR</td>
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<td>DIT 190</td>
<td>Electrical Systems for Diesel Equipment AND</td>
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<td>Electrical Systems for Diesel Equipment Lab</td>
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<td>DIT 112</td>
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Diesel Engine Mechanic - 4706053079
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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<td>Introduction to Diesel Engines Lab OR</td>
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Diesel Mechanics Assistant - 4706053189
(Offered at ASC, BSC, ELC, HZC, MYC, OWC, SEC, SMC, WKC)

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Diesel Steering & Suspension Mechanic - 4706053179
(Offered at ASC, BSC, ELC, HZC, MYC, OWC, SEC, SMC, WKC)

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Electrical/Electronics Systems Mechanic - 4706053059
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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<td>ADX 260</td>
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<td>ADX 261</td>
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Fluid Power Mechanic - 4706053119
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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<td>DIT 140</td>
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<td>FPX 101</td>
<td>Fluid Power Lab OR</td>
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<td>DIT 141</td>
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Heavy Duty Brake Mechanic - 4706053039
(Offered at ASC, BSC, ELC, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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<tr>
<td>DIT 180</td>
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<td>DIT 181</td>
<td>Brakes Lab</td>
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Heavy Duty Drive Train Mechanic - 4706053089
(Offered at ASC, BSC, ELC, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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<th>Course</th>
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<tr>
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<td>Power Trains</td>
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<td>DIT 151</td>
<td>Power Trains Lab</td>
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</table>
Digital Printing Technology

The 3D Printing Technician – Level I certificate prepares individuals to design for and apply 3D printing technology, also known as additive manufacturing, towards a host of basic applications. Areas of study will incorporate a foundational understanding of the technology, the equipment, thermoplastics and other materials, design applications, related software, business applications, scanning technology, and other related concepts. Upon completion of the certificate, students will be versed in the broad impact of the technology and prepared for an entry level career within an industry that applies 3D printing technology in some fashion.

Certificate

3D Printing Technician - Level I - 1506073059

(Offered at ASC, BSC, ELC, GTW, HZC, MYC, OWC, SEC)

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<td>DPT 102</td>
<td>3D Printing Technology Fundamentals AND</td>
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<tr>
<td>CTT 105</td>
<td>Introduction to Computers</td>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business OR</td>
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<td>BAS 170</td>
<td>Entrepreneurship</td>
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<td>DPT 150</td>
<td>Introduction to Engineering Mechanics for 3D Printing</td>
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<td>DPT 280</td>
<td>Special Projects for 3D Printing, Level I</td>
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<tr>
<td>Elective: Any technical, entry level course within a field</td>
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Total 16-18

Education

The Associate in Applied Science Degree (AAS) – Education: Educator Preparation is a pathway designed for students who wish to begin coursework at a community and technical college and then apply for transfer admission to a teacher education program at a four-year college or university.

Associate in Applied Science

Education - 1315017019

Educator Preparation Track - 131501703

(Offered at BLC, ELC, GTW, JFC, OWC, SEC)

<table>
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<td>ENG 102</td>
<td>Writing II</td>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
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<td>History of the United States Through 1865</td>
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<td>HIS 109</td>
<td>History of the United States Since 1865</td>
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<td>MAT 146</td>
<td>Contemporary College Mathematics</td>
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<td>College Algebra</td>
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<tr>
<td>MA 109</td>
<td>College Algebra</td>
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Total 12-15

Digital Game and Simulation Design

Provides students with a thorough understanding of techniques for designing advanced 3D games and simulations. Courses will cover 2D and 3D graphics, animation, character development, texturing, rigging, scripting and game setup using state-of-the-art software development tools.

Completing students will have developed the skills necessary to create sophisticated 3D graphics and a simple application that can be used for games and simulations.

Certificate

Digital Game and Simulation Design - 1108033029

(Offered at JFC, MYC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>DGD 236</td>
<td>Game Engines I</td>
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<td>DGD 237</td>
<td>Game Engines II</td>
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Total 27-30
Emergency Medical Services - Paramedic

Provides a comprehensive course of study that prepares the graduate for licensure as a Paramedic (EMTP). The curriculum is structured based on the National EMS Education Standards and regulations set forth by the Kentucky Board of Emergency Medical Services (KBEMS). The three-phase curriculum is designed to provide the student with the cognitive knowledge, psychomotor skills, and affective behaviors necessary to competently perform as a Paramedic. The EMS program prepares students to function in the emergency medical profession as a Paramedic in a variety of environments. Graduates primarily provide pre-hospital emergency care to acutely ill and/or injured individuals while working on an ambulance, mobile advanced life support unit, industrial on-site unit, fire department, emergency department, and other agencies. Graduates are eligible to apply to take the National Registry Paramedic Exam. Students may earn either a Certificate or Associate in Applied Science Degree at the Paramedic level. Credit may be awarded to currently practicing paramedics towards the Associate in Applied Science Degree. Enrollment in this program is limited; therefore, a selective admissions process is followed. Students are required to hold current unrestricted certification as an EMT in Kentucky or hold current unrestricted registration with the National Registry EMT as an EMT to be eligible for paramedic program admission.

Acceptance into the EMS-Paramedic Program is based upon a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Applicants must present current, unrestricted state certification or proof of National Registry of EMT eligibility to become state certified. Licensed paramedics may receive credit towards the Associate of Applied Science in Emergency Medical Services – Paramedic. When eligible, the licensed paramedic will be awarded thirty-eight (38) semester credit hours upon the completion of: a) applying to the college of choice; b) submitting a letter of intent and a copy of the required licensure/certification document to the program coordinator with subsequent validation by the Registrar; and c) completing at least nine (9) credit hours from the degree-granting institution. Credit will be awarded as follows: 4 credit hours/EMS 200 Introduction to Paramedicine; 3 credit hours/EMS 210 Emergency Pharmacology; 3 credit hours/EMS 220 Cardiovascular Emergencies; 4 credit hours/EMS 230 Traumatic Emergencies; 3 credit hours/EMS 240 Medical Emergencies I; 3 credit hours/EMS 250 Medical Emergencies II; 3 credit hours/EMS 260 Special Populations; 1 credit hour/EMS 270 EMS Operations; 1 credit hour/EMS 275 Seminar in ALS; 5 credit hours/EMS 285 Field Internship & Summation; 2 credit hours/EMS 211 Fundamentals Lab; 1 credit hour/EMS 221 Cardiac & Trauma Lab; 1 credit hour/EMS 231 Medical Lab; 1 credit hour/EMS 235 Clinical Experience III. Students must meet the twenty-five percent (25%) residency requirements of the degree-granting institution.

Students select their career option preference, certificate or degree, either during advising or upon admission to the program, but may choose to change their career path while in the program without reapplying for admission to the college.

Student can receive a certificate as an Electrocardiogram Technician by completing EMS 150. EMS 150 will prepare students to perform and interpret electrocardiograms in a hospital or clinical setting.

Associate in Applied Science

Emergency Medical Services - Paramedic - 5109047029
(Offered at ASC, GTW, HPC, HZC, JFC, MDC, OWC, SMC, WKC)

General Education:

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<td>BIO 135</td>
<td>Basic Anatomy and Physiology Laboratory*</td>
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<td>BIO 136</td>
<td>Quantitative Reasoning</td>
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<td>EMS 231</td>
<td>Medical Lab</td>
<td>1</td>
</tr>
<tr>
<td>EMS 235</td>
<td>Clinical Experience III</td>
<td>2</td>
</tr>
<tr>
<td>EMS 240</td>
<td>Medical Emergencies I</td>
<td>3</td>
</tr>
<tr>
<td>EMS 250</td>
<td>Medical Emergencies II</td>
<td>3</td>
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<tr>
<td>EMS 260</td>
<td>Special Populations</td>
<td>3</td>
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<tr>
<td>EMS 270</td>
<td>EMS Operations</td>
<td>1</td>
</tr>
<tr>
<td>EMS 275</td>
<td>Seminar in Advanced Life Support (ALS)</td>
<td>1</td>
</tr>
<tr>
<td>EMS 285</td>
<td>Field Internship &amp; Summation</td>
<td>5-6</td>
</tr>
<tr>
<td>AHS 201</td>
<td>Management Principles for Allied Health Providers</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 60-61

* BIO 137 & BIO 139 may be substituted for BIO 135

Certificate

Emergency Medical Services - Paramedic - 5109043040
(Offered at ASC, BLC, HZC, GTW, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology Laboratory*</td>
<td>4</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology Greek and Latin</td>
<td>3</td>
</tr>
<tr>
<td>FHM 100</td>
<td>Dosage Calculations OR</td>
<td>2</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>EMS 200</td>
<td>Introduction to Paramedicine</td>
<td>4</td>
</tr>
<tr>
<td>EMS 210</td>
<td>Emergency Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>EMS 211</td>
<td>Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>EMS 215</td>
<td>Clinical Experience I</td>
<td>1</td>
</tr>
<tr>
<td>EMS 220</td>
<td>Cardiovascular Emergencies</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 60-61
# Energy Management

The Energy Management (EM) degree is designed to give students the skills and national certifications required to receive employment in the rapidly growing field of energy management and positions in the energy industry. The embedded certificates include: the Center for Energy Workforce Development (CEWD) Energy Industry Fundamental Certificate, the Building Performance Institute’s Building Specialist certificate, The North American Board of Certified Energy Practitioners’ Entry Level Solar certification, the Leadership in Energy and Environmental Design’s Green Associate certification, and the Environmental Protection Agency’s Article 608 certification. The program is designed to meet the needs of non-traditional and working students by having courses absent of pre-requisites. The program has several embedded certificates that will give many exit points to employment. Graduates of the EM program will be qualified to recommend improvements to commercial and residential buildings by analyzing subsystems that contribute to higher energy usage.

Documentation of digital literacy as defined by KCTCS is required prior to enrolling in the first Energy Management course.

## Associate in Applied Science

**Energy Management - 1505037039**

(Offered at MDC)

### General Education

- Quantitative Reasoning .............................................. 3
- Social/Behavioral Sciences ......................................... 3
- Written Communication .............................................. 3

**Total Credits** 15

### Technical Core

- ENM 101 Energy Industry Fundamentals .................................................. 9
- ENM 111 Sustainability Management OR .................................................. 3
- IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator). 3
- ENM 121 Solar Design and Applications .............................................. 3
- ENM 200 Commercial Energy Analysis .............................................. 3
- ENM 210 Smart Grid Applications .................................................. 3
- AIT 220 The Integrated Power Grid .................................................. 3
- ENM 230 Building Automation .................................................. 3

**Total Credits** 46

## Diplom

**Energy Management - 1505034019**

(Offered at MDC)

### General Education

- Natural Sciences .................................................. 3
- Written/Oral Communications .............................................. 3

**Total Credits** 6

### Technical Core

- ENM 101 Energy Industry Fundamentals .................................................. 9
- ENM 111 Sustainability Management OR .................................................. 3
- IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator). 3
- ENM 121 Solar Design and Applications .............................................. 3
- ENM 200 Commercial Energy Analysis .............................................. 3
- ENM 210 Smart Grid Applications .................................................. 3
- AIT 220 The Integrated Power Grid .................................................. 3
- ENM 230 Building Automation .................................................. 3
- EGY 240 Energy Analysis and Efficiency .................................................. 4
- ENM 250 Regulatory and Environmental Issues ....................................... 3
- ENM 260 Air Conditioning and Refrigeration Regulations ................................ 3
- BRX 120 Basic Blueprint Reading .................................................. 3
- BAS 160 Introduction to Business .................................................. 3
- BAS 283 Principles of Management OR .................................................. 3
- BAS 284 Applied Management Skills .................................................. 3

**Subtotal** 46

**Total Credits** 52

## Certificates

### Fundamentals of Energy Production – 1505033099

(Offered at MDC)

- ENM 101 Energy Industry Fundamentals .................................................. 9

**Total Credits** 9

### Commercial Energy Analysis – 1505033099

(Offered at MDC)

- ENM 111 Sustainability Management OR .................................................. 3
- IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator). 3
- ENM 200 Commercial Energy Analysis .............................................. 3
- ENM 230 Building Automation .................................................. 3
- ENM 250 Regulatory and Environmental Issues ....................................... 3
- ENM 260 Air Conditioning and Refrigeration Regulations ................................ 3

**Total Credits** 15
The Energy Systems degree is designed to prepare its graduates for entry level positions across the entire range of energy technologies. The initial track will prepare students to work safely and effectively as operators in fossil-fueled electricity generating power plants. The curriculum will also provide a background in other types of energy production and distribution, including solar, wind, geothermal, and petroleum-based as well as emerging technologies such as ethanol, biodiesel, and clean coal technologies. Graduates will have an understanding of the financial, societal, and environmental impacts of the various energy production technologies, and will be able to operate and troubleshoot the machinery and systems used in energy production.

**Energy Technologies**

Offers an option for students to build a career in the energy field. The degree incorporates multiple tracks for certificates associated with different energy careers, allowing students to match their strengths and interests with an appropriate plan of study. It is focused on preparing graduates to enter the workforce in positions such as an entry-level utility apprentice, line maintenance technician, transformer/rely technician, fiber optic technician, outside plant fiber optic technician, network communications technician, voice and data wiring technician, or renewable energy and energy efficiency specialist. The degree provides a broad foundation across many facets of utility and communications technologies, resulting in a multi-skilled technician valued by the workforce. Hands-on instruction is used to teach students aspects of smart grid technology, fiber optics installation, utility operation, line maintenance, underground operations, substation operations, transmission distribution, solar/photovoltaic systems installation, design and placement of wind energy systems, energy efficiency analysis, electrical energy efficiency control technologies, and job safety. The technical certificate tracks are complemented by an operations management certificate, which provides background knowledge of business operations.

**Associate in Applied Science**

Energy Systems - 1505037019

(Offered at MYC)

**General Education**

MAT 116 Technical Mathematics ................................................. 3
ENG 101 Writing I ................................................................. 3
PHY 151 Introductory Physics I or higher .................................. 3
Heritage/Humanities ................................................................. 3
Social/Behavioral Sciences (ECO 101 preferred) .................... 3
Oral Communications ............................................................... 3
Subtotal 18

**Technical Core**

Computer/Digital Literacy ......................................................... 0-3
ESL 101 Introduction to Energy Systems .................................... 3
ESL 211 Power Plant Operations I .............................................. 3
ISX 101 Introduction to Industrial Safety .................................... 3
ELT 102 Blueprint Reading .......................................................... 2
ESL 220 Power Plant Thermodynamics OR .................................. 3
ELT 208 Thermodynamic Applications ........................................ 3
ENV 110 Introduction to Environmental Technology .................. 4
ESL 110 Petroleum Based Fuels ................................................. 3
ESL 280 Capstone in Energy Systems or .................................... 3
ISM 210 Fundamentals of Process Control (3) ......................... (3)
Subtotal 24-27

**Power Plant Operations Track - 150503701**

(Concerned at GTW)

ESL 212 Power Plant Operations II .............................................. 3
ESL 213 Power Plant Operations III .............................................. 3
ESL 214 Power Plant Operations IV .............................................. 3
ESL 120 Power Plant Chemistry .................................................. 3
ESL 130 Electrical Concepts ....................................................... 3
ESL 132 Electrical Machinery and Controls ............................... 3
COE** 199 Cooperative Education ................................................ 3
Subtotal 21

Total Credits 63-66

**Certificate**

Power Plant Operations - 1505033019

(Concerned at MDC)

**General Education**

MAT 116 Technical Mathematics ................................................. 3
PHY 151 Introductory Physics I or higher .................................. 3
Subtotal 6

**Core**

ELT 102 Blueprint Reading .......................................................... 2
ESL 220 Power Plant Thermodynamics OR .................................. 3
ELT 208 Thermodynamic Applications ........................................ 3
ESL 211 Power Plant Operations I .............................................. 3
ESL 120 Power Plant Chemistry .................................................. 3
ISX 101 Introduction to Industrial Safety .................................... 3
ESL 212 Power Plant Operations II .............................................. 3
ESL 213 Power Plant Operations III .............................................. 3
ESL 130 Electrical Concepts ....................................................... 3
COE** 199 Cooperative Education ................................................ 3
Subtotal 26

Total Credits 32

**COE 199 requirement can be met by relevant work experience approved by the program coordinator.**
Academic Curricula

Core

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>BAS</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>EET</td>
<td>Transformers</td>
<td>2</td>
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<tr>
<td>EET</td>
<td>Transformers Lab</td>
<td>1</td>
</tr>
<tr>
<td>ELT</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ETT</td>
<td>Voice and Data Installer Level I</td>
<td>4</td>
</tr>
<tr>
<td>ISX</td>
<td>Introduction to Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>EGY</td>
<td>Energy Utility Technologies</td>
<td>4</td>
</tr>
<tr>
<td>EGY</td>
<td>Outside Plant Communications</td>
<td>4</td>
</tr>
</tbody>
</table>

Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) ........................................ 0-3

Subtotal 26-29

Technical Electives

Any course listed below OR in the certificates listed below (not including courses in the technical core) OR as approved by the program coordinator ........................................ 16

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>COE</td>
<td>Cooperative Education (up to 8 credit hours)</td>
<td>16</td>
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<tr>
<td>DFT</td>
<td>Introduction to Computer Aided Drafting</td>
<td>16</td>
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</table>

Total Credits 60-64

Certificate

Energy Efficiency Electrical Controls Technician – 1505033049

(Offered at GTW)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>EET</td>
<td>Electrical Construction I</td>
<td>2</td>
</tr>
<tr>
<td>EET</td>
<td>Electrical Construction I Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET</td>
<td>National Electric Code</td>
<td>4</td>
</tr>
<tr>
<td>EET</td>
<td>Electrical Construction II</td>
<td>2</td>
</tr>
<tr>
<td>EET</td>
<td>Electrical Construction II Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELT</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>EGY</td>
<td>Energy Efficiency Electrical Controls</td>
<td>4</td>
</tr>
</tbody>
</table>

Total 21

Outside Plant Technician – 1505033039

(Offered at GTW)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ETT</td>
<td>Voice and Data Installer Level I</td>
<td>4</td>
</tr>
<tr>
<td>ISX</td>
<td>Introduction to Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>EGY</td>
<td>Outside Plant Communications</td>
<td>4</td>
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</table>

Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) ........................................ 0-3

Total 16-19

Energy Utility Technician – 1505033029

(Offered at GTW)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET</td>
<td>Transformers</td>
<td>2</td>
</tr>
<tr>
<td>EET</td>
<td>Transformers Lab</td>
<td>1</td>
</tr>
<tr>
<td>ELT</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ISX</td>
<td>Introduction to Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>EGY</td>
<td>Energy Utility Technologies</td>
<td>4</td>
</tr>
</tbody>
</table>

Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) ........................................ 0-3

Total 15-18

Wind System Technologies – 1505033059

(Offered at BSC, BLC, GTW)

<table>
<thead>
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<th>Code</th>
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<th>Credit Hours</th>
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<tbody>
<tr>
<td>ELT</td>
<td>Electrical Construction I</td>
<td>2</td>
</tr>
<tr>
<td>IMT</td>
<td>Maintaining Industrial Equipment</td>
<td>3</td>
</tr>
<tr>
<td>IMT</td>
<td>Maintaining Industrial Equipment Lab</td>
<td>2</td>
</tr>
<tr>
<td>EGY</td>
<td>Wind / Turbine Technologies</td>
<td>4</td>
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</table>

Total 14

Solar/Photovoltaic Technologies – 1505033069

(Offered at BSC, BLC, GTW)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>EET</td>
<td>Electrical Construction I</td>
<td>2</td>
</tr>
<tr>
<td>EET</td>
<td>Electrical Construction I Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELT</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>EGY</td>
<td>Solar / Photovoltaic Technologies</td>
<td>4</td>
</tr>
</tbody>
</table>

Total 13

Energy Efficiency and Analysis – 1505033079

(Offered at BSC, BLC, GTW)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR</td>
<td>Heat Load / Duct Design</td>
<td>3</td>
</tr>
<tr>
<td>EGY</td>
<td>Energy Efficiency and Analysis</td>
<td>4</td>
</tr>
</tbody>
</table>

Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) ........................................ 0-3

Total 7-10

Engineering and Electronics Technology

The Engineering and Electronics Technology program provides course work, competencies and experiences to prepare the students for success in the areas of Engineering technology, electronics, computer maintenance, mechanical, industrial, computer aided design, robotics and automation, communications, instrumentation, medical equipment, and telephony.

Progress in the Engineering and Electronics Technology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Engineering and Electronics Technology - 1503997019

(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SKY, SMC)

General Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>MAT</td>
<td>College Algebra OR</td>
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<tr>
<td>MAT</td>
<td>Technical Algebra and Trigonometry OR</td>
<td>(3)</td>
</tr>
<tr>
<td>PHY</td>
<td>Applied Physics OR</td>
<td>4</td>
</tr>
<tr>
<td>ENG</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>PHY</td>
<td>Other Natural Sciences with Consent of Program Coordinator</td>
<td>(3)</td>
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<tr>
<td>SOC</td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<tr>
<td>COM</td>
<td>Oral Communications</td>
<td>3</td>
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<tr>
<td>HUM</td>
<td>Heritage/Humanities</td>
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Subtotal 18-19

Core:

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<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ELT</td>
<td>Circuits I</td>
<td>5</td>
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<tr>
<td>ELT</td>
<td>Circuits II</td>
<td>5</td>
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<tr>
<td>ELT</td>
<td>Devices I</td>
<td>4</td>
</tr>
<tr>
<td>ELT</td>
<td>Digital I</td>
<td>3</td>
</tr>
<tr>
<td>CAD</td>
<td>Introduction to Computer Aided Design OR</td>
<td>3</td>
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<tr>
<td>CAD</td>
<td>CAD Fundamentals OR</td>
<td>(4)</td>
</tr>
<tr>
<td>BRX</td>
<td>Basic Blueprint Reading OR</td>
<td>(3)</td>
</tr>
<tr>
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<td>Course Title</td>
<td>Credit Hours</td>
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<tr>
<td>-------------</td>
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</tr>
<tr>
<td>ELT 289</td>
<td>Engineering and Electronics Technology Capstone Course</td>
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<tr>
<td>Digital Literacy</td>
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<tr>
<td>NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) elective credit hours to meet the selected track.</td>
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</table>

**Electronics Track – 150399707**
*(Offered at BLC, ELC, HPC, JFC, OW, SMC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ELT 214</td>
<td>Devices II</td>
<td>4</td>
</tr>
<tr>
<td>ELT 220</td>
<td>Digital II</td>
<td>3</td>
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<tr>
<td>Technical Electives</td>
<td></td>
<td></td>
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<td><strong>Subtotal</strong></td>
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<tr>
<td><strong>Total</strong></td>
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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.|

**Computer Aided Design Track – 150399702**
*(Offered at HPC, JFC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 150</td>
<td>CAD/CAM/CNC</td>
<td>3</td>
</tr>
<tr>
<td>ELT 290</td>
<td>Selected Topics in Engineering Technology</td>
<td>(3-4)</td>
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<tr>
<td>CAD 200</td>
<td>Intermediate Computer Aided Drafting</td>
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</tr>
<tr>
<td>CAD 201</td>
<td>Advanced 3D Modeling</td>
<td>4</td>
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<tr>
<td>Technical Electives</td>
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<td></td>
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<tr>
<td><strong>Subtotal</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td></td>
</tr>
</tbody>
</table>

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.|

**Robotics and Automation Track – 150399705**
*(Offered at BLC, HPC, JFC, SKY)*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
<td>(2)</td>
</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
<td>(2)</td>
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<tr>
<td>Technical Electives</td>
<td></td>
<td></td>
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<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.|

**Communications Track – 150399708**
*(Offered at BLC, ELC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 214</td>
<td>Devices II</td>
<td>4</td>
</tr>
<tr>
<td>ELT 220</td>
<td>Digital II</td>
<td>3</td>
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<td>EET 240</td>
<td>Communications Electronics</td>
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<tr>
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<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.|

**Instrumentation Track – 150399709**
*(Offered at ELC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 220</td>
<td>Digital II</td>
<td>3</td>
</tr>
<tr>
<td>ISM 102</td>
<td>Fundamentals of Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>ISM 210</td>
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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
Medical Equipment and Instrumentation Track – 150399710

ELT 214 Devices II .................................................. 4
BIO 135 Basic Anatomy and Physiology with Laboratory .... 4
BMT 200 Insight into Biomedical Equipment Technology .... 2
BMT 202 General Equipment Studies .................................. 3
BMT 204 Electrical, Mechanical, and Optical Principles .... 3
BMT 205 Biomedical Equipment Practices I ......................... 1
BMT 206 Specialized Biomedical Equipment ...................... 3
BMT 207 Biomedical Equipment Practices II ....................... 2
BMT 209 Clinical .................................................. 2

Subtotal 23

Total 65-67

Electronics – 1503994019

(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SEC, SMC)

General Education:

Area 1: Written Communication or Oral Communications .......... 3

AND

Area 2:

MAT 150 College Algebra OR ........................................... 3
MAT 126 Technical Algebra and Trigonometry OR ................. (3)
Higher Level Quantitative Reasoning Course ....................... (3)

Subtotal 6

Core:

ELT 110 Circuits I ................................................... 5
ELT 114 Circuits II .................................................... 5
ELT 210 Devices I ..................................................... 4
ELT 120 Digital I ..................................................... 3
CAD 100 Introduction to Computer Aided Design OR ........... 3
CAD 103 CAD Fundamentals OR .................................. (4)
BRX 120 Basic Blueprint Reading OR .................................. (3)

Equivalent Course with Consent of Program Coordinator (3-4)

ELT 289 Engineering and Electronics Technology Capstone Course .................. 1

Digital Literacy .................................................. 3

NOTE: If a student takes CAD 103 to meet Digital Literacy
requirements, he/she MUST take an additional three (3)
credit hours of elective credit not used in the
selected track. .................................................. (3)

COED 198 Practicum OR ........................................... 1-2
COE 199 Cooperative Education OR .............................. (1-2)

Equivalent Course with Consent of Program Coordinator (1-2)

Subtotal 25-27

APS 201 Apprenticeship Studies ....................................... 24

Subtotal 24

Total 55-57

*Technical Electives: Any EET, ELT, IIMT, CIT, ISM, CAD, ICT, MFG, or any other course
as approved by the program coordinator.

Industrial Electronics – 1503994079

(Offered at BLC, HPC, JFC, OWC, SEC)

General Education:

Area 1: Written Communication or Oral Communications ........ 3

AND

Area 2:

MAT 150 College Algebra OR ........................................... 3
MAT 126 Technical Algebra and Trigonometry OR ................. (3)
Higher Level Quantitative Reasoning Course ....................... (3)

Subtotal 6

Core:

ELT 110 Circuits I ................................................... 5
ELT 114 Circuits II .................................................... 5
ELT 210 Devices I ..................................................... 4
ELT 120 Digital I ..................................................... 3
CAD 100 Introduction to Computer Aided Design OR ........... 3
CAD 103 CAD Fundamentals OR .................................. (4)
BRX 120 Basic Blueprint Reading OR .................................. (3)

Equivalent Course with Consent of Program Coordinator (3-4)

ELT 289 Engineering and Electronics Technology Capstone Course .................. 1

Digital Literacy .................................................. 3

NOTE: If a student takes CAD 103 to meet Digital Literacy
requirements, he/she MUST take an additional three (3)
credit hours of elective credit not used in the
selected track. .................................................. (3)

COED 198 Practicum OR ........................................... 1-2
COE 199 Cooperative Education OR .............................. (1-2)

Equivalent Course with Consent of Program Coordinator (1-2)

Subtotal 25-27

APS 201 Apprenticeship Studies ....................................... 24

Subtotal 24

Total 55-57

*Technical Electives: Any EET, ELT, IIMT, CIT, ISM, CAD, ICT, MFG, or any other course
as approved by the program coordinator.

Apprenticeship- 1503994059

(Offered at JFC)

General Education:

Area 1: Written Communication or Oral Communications ........ 3

AND

Area 2:

MAT 150 College Algebra OR ........................................... 3
MAT 126 Technical Algebra and Trigonometry OR ................. (3)
Higher Level Quantitative Reasoning Course ....................... (3)

Subtotal 6

Core:

ELT 110 Circuits I ................................................... 5
ELT 114 Circuits II .................................................... 5
ELT 210 Devices I ..................................................... 4
ELT 120 Digital I ..................................................... 3
CAD 100 Introduction to Computer Aided Design OR ........... 3
CAD 103 CAD Fundamentals OR .................................. (4)
BRX 120 Basic Blueprint Reading OR .................................. (3)

Equivalent Course with Consent of Program Coordinator (3-4)

ELT 289 Engineering and Electronics Technology Capstone Course .................. 1

Digital Literacy .................................................. 3

NOTE: If a student takes CAD 103 to meet Digital Literacy
requirements, he/she MUST take an additional three (3)
credit hours of elective credit not used in the
selected track. .................................................. (3)

COED 198 Practicum OR ........................................... 1-2
COE 199 Cooperative Education OR .............................. (1-2)

Equivalent Course with Consent of Program Coordinator (1-2)

Subtotal 25-27

APS 201 Apprenticeship Studies ....................................... 24

Subtotal 24

Total 55-57

*Technical Electives: Any EET, ELT, IIMT, CIT, ISM, CAD, ICT, MFG, or any other course
as approved by the program coordinator.
Digital Literacy
ELT 289 Engineering and Electronics Technology Capstone Course .......................... 1
Digital Literacy ................................................................ 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. ......................................................... (3)
COED 198 Practicum OR ................................................... 1-2
COE 199 Cooperative Education OR .................................. (1-2)
Equivalent Course with Consent of Program Coordinator ........................................... (1-2)
Subtotal ............................................................... 25-27

Core:
ELT 110 Circuits I .............................................................. 5
ELT 114 Circuits II ............................................................ 5
ELT 210 Devices I .............................................................. 4
ELT 120 Digital I ............................................................... 4
CAD 100 Introduction to Computer Aided Design OR ................................. 3
CAD 103 CAD Fundamentals OR .......................................... 4
BRX 120 Basic Blueprint Reading OR .................................... (3)
Equivalent Course with Consent of Program Coordinator ........................................ (3-4)
Subtotal ............................................................... 23-24
Total ................................................................. 54-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Communications – 1503994029
(Offered at BLC, ELC, JFC, OWC, SEC, SMC)

General Education:
Area 1:  Written Communication or Oral Communications ......................... 3
AND
Area 2:  MAT 150 College Algebra OR ................................................. 3
MAT 126 Technical Algebra and Trigonometry OR .................................. 3
Higher Level Quantitative Reasoning Course .............................................. 3
Subtotal ............................................................... 6

Core:
ELT 110 Circuits I .............................................................. 5
ELT 114 Circuits II ............................................................ 5
ELT 210 Devices I .............................................................. 4
ELT 120 Digital I ............................................................... 4
CAD 100 Introduction to Computer Aided Design OR ................................. 3
CAD 103 CAD Fundamentals OR .......................................... 4
BRX 120 Basic Blueprint Reading OR .................................... (3)
Equivalent Course with Consent of Program Coordinator ........................................ (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course .......................... 1
Digital Literacy ................................................................ 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. ......................................................... (3)
COED 198 Practicum OR ................................................... 1-2
COE 199 Cooperative Education OR .................................. (1-2)
Equivalent Course with Consent of Program Coordinator ........................................... (1-2)
Subtotal ............................................................... 25-27

Core:
ELT 110 Circuits I .............................................................. 5
ELT 114 Circuits II ............................................................ 5
ELT 210 Devices I .............................................................. 4
ELT 120 Digital I ............................................................... 4
CAD 100 Introduction to Computer Aided Design OR ................................. 3
CAD 103 CAD Fundamentals OR .......................................... 4
BRX 120 Basic Blueprint Reading OR .................................... (3)
Equivalent Course with Consent of Program Coordinator ........................................ (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course .......................... 1
Digital Literacy ................................................................ 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. ......................................................... (3)
COED 198 Practicum OR ................................................... 1-2
COE 199 Cooperative Education OR .................................. (1-2)
Equivalent Course with Consent of Program Coordinator ........................................... (1-2)
Subtotal ............................................................... 25-27

Computer Maintenance – 1503994049
(Offered at BLC, ELC, JFC, OWC, SEC, SMC)

General Education:
Area 1:  Written Communication or Oral Communications ......................... 3
AND
Area 2:  MAT 150 College Algebra OR ................................................. 3
MAT 126 Technical Algebra and Trigonometry OR .................................. 3
Higher Level Quantitative Reasoning Course .............................................. 3
Subtotal ............................................................... 6

Core:
ELT 110 Circuits I .............................................................. 5
ELT 114 Circuits II ............................................................ 5
ELT 210 Devices I .............................................................. 4
ELT 120 Digital I ............................................................... 4
CAD 100 Introduction to Computer Aided Design OR ................................. 3
CAD 103 CAD Fundamentals OR .......................................... 4
BRX 120 Basic Blueprint Reading OR .................................... (3)
Equivalent Course with Consent of Program Coordinator ........................................ (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course .......................... 1
Digital Literacy ................................................................ 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. ......................................................... (3)
COED 198 Practicum OR ................................................... 1-2
COE 199 Cooperative Education OR .................................. (1-2)
Equivalent Course with Consent of Program Coordinator ........................................... (1-2)
Subtotal ............................................................... 25-27

Core:
ELT 110 Circuits I .............................................................. 5
ELT 114 Circuits II ............................................................ 5
ELT 210 Devices I .............................................................. 4
ELT 120 Digital I ............................................................... 4
CAD 100 Introduction to Computer Aided Design OR ................................. 3
CAD 103 CAD Fundamentals OR .......................................... 4
BRX 120 Basic Blueprint Reading OR .................................... (3)
Equivalent Course with Consent of Program Coordinator ........................................ (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course .......................... 1
Digital Literacy ................................................................ 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. ......................................................... (3)
COED 198 Practicum OR ................................................... 1-2
COE 199 Cooperative Education OR .................................. (1-2)
Equivalent Course with Consent of Program Coordinator ........................................... (1-2)
Subtotal ............................................................... 25-27

Basic Blueprints Reading OR .................................................................. 3
CAD 100 Introduction to Computer Aided Design OR ................................. 3
CAD 103 CAD Fundamentals OR .......................................... 4
BRX 120 Basic Blueprint Reading OR .................................... (3)
Equivalent Course with Consent of Program Coordinator ........................................ (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course .......................... 1
Digital Literacy ................................................................ 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. ......................................................... (3)
COED 198 Practicum OR ................................................... 1-2
COE 199 Cooperative Education OR .................................. (1-2)
Equivalent Course with Consent of Program Coordinator ........................................... (1-2)
Subtotal ............................................................... 25-27

Total ................................................................. 51-55

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
Mechanical – 1503994069
(Offered at JFC, OWC)

General Education:
Area 1: Written Communication or Oral Communications .......... 3
      AND
Area 2:
MAT 150 College Algebra OR ............................................. 3
MAT 126 Technical Algebra and Trigonometry OR .................... (3)
Higher Level Quantitative Reasoning Course ....................... (3)
Subtotal 6

Core:
ELT 110 Circuits I .................................................. 5
ELT 114 Circuits II ............................................... 5
ELT 210 Devices I .................................................. 4
ELT 120 Digital I .................................................. 3
CAD 100 Introduction to Computer Aided Design OR .......... 3
CAD 103 CAD Fundamentals OR .................................... (4)
BRX 120 Basic Blueprint Reading OR ................................ (3)
Equivalent Course with Consent of Program Coordinator ........... (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course .................................. 1
Digital Literacy .................................................... 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track ......... (3)
COED 198 Practicum OR ............................................ 1-2
COE 199 Cooperative Education OR ................................. (1-2)
Equivalent Course with Consent of Program Coordinator ........ (1-2)
Subtotal 25-27

Core:
ELT 111 Circuits I .................................................. 5
ELT 114 Circuits II ............................................... 5
ELT 210 Devices I .................................................. 4
ELT 120 Digital I .................................................. 3
CAD 100 Introduction to Computer Aided Design OR .......... 3
CAD 103 CAD Fundamentals OR .................................... (4)
BRX 120 Basic Blueprint Reading OR ................................ (3)
Equivalent Course with Consent of Program Coordinator ........... (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course .................................. 1
Digital Literacy .................................................... 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track ......... (3)
COED 198 Practicum OR ............................................ 1-2
COE 199 Cooperative Education OR ................................. (1-2)
Equivalent Course with Consent of Program Coordinator ........ (1-2)
Subtotal 25-27

NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track ......... (3)
Practicum OR ...................................................... 1-2
Cooperative Education OR ........................................ (1-2)
Equivalent Course with Consent of Program Coordinator ........ (1-2)
Subtotal 25-27

Subtotal 55-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Instrumentation – 1503994099
(Offered at ELC)

General Education:
Area 1: Written Communication or Oral Communications .......... 3
      AND
Area 2:
MAT 150 College Algebra OR ............................................. 3
MAT 126 Technical Algebra and Trigonometry OR .................... (3)
Higher Level Quantitative Reasoning Course ....................... (3)
Subtotal 6

Core:
ELT 111 Circuits I .................................................. 5
ELT 114 Circuits II ............................................... 5
ELT 210 Devices I .................................................. 4
ELT 120 Digital I .................................................. 3
CAD 100 Introduction to Computer Aided Design OR .......... 3
CAD 103 CAD Fundamentals OR .................................... (4)
BRX 120 Basic Blueprint Reading OR ................................ (3)
Equivalent Course with Consent of Program Coordinator ........... (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course .................................. 1
Digital Literacy .................................................... 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track ......... (3)
COED 198 Practicum OR ............................................ 1-2
COE 199 Cooperative Education OR ................................. (1-2)
Equivalent Course with Consent of Program Coordinator ........ (1-2)
Subtotal 25-27

Subtotal 51-53

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
Digital Telephony - 1503994109

General Education:
Area 1: Written Communication or Oral Communications 3

AND

Area 2:
MAT 150 College Algebra OR 3
MAT 126 Technical Algebra and Trigonometry OR (3) Higher Level Quantitative Reasoning Course 3

Subtotal 6

Core:
ELT 110 Circuits I 5
ELT 114 Circuits II 5
ELT 210 Devices I 4
ELT 120 Digital I 3
CAD 100 Introduction to Computer Aided Design OR 3
CAD 103 CAD Fundamentals OR (4)
BRX 120 Basic Blueprint Reading OR (3) Equivalent Course with Consent of Program Coordinator 3
ELT 289 Engineering and Electronics Technology Capstone Course 1
Digital Literacy 1

NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track 3

COED 198 Practicum OR 1-2
COE 199 Cooperative Education OR (1-2) Equivalent Course with Consent of Program Coordinator 3

Subtotal 25-27

ELT 222 Mechanics of Telephony 3
ELT 224 Basic Telecoms Installation and Maintenance 3
ELT 226 Safety in the Workplace OR 2
ISX 100 Industrial Safety OR (3) Equivalent Course with Consent of Program Coordinator 3
ELT 214 Devices II 4
ELT 220 Digital II 3

Subtotal 15-16

Total 46-49

*Technical Electives: Any EET, ELT, JMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Medical Equipment Service Technician - 1503994119

General Education:
Area 1: Written Communication or Oral Communications 3

AND

Area 2:
MAT 150 College Algebra OR 3
MAT 126 Technical Algebra and Trigonometry OR (3) Higher Level Quantitative Reasoning Course (3)

Subtotal 6

Core:
ELT 110 Circuits I 5
ELT 114 Circuits II 5
ELT 210 Devices I 4
ELT 120 Digital I 3
CAD 100 Introduction to Computer Aided Design OR 3
CAD 103 CAD Fundamentals OR (4)
BRX 120 Basic Blueprint Reading OR (3) Equivalent Course with Consent of Program Coordinator 3
ELT 289 Engineering and Electronics Technology Capstone Course 1
Digital Literacy 3

NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track 3

COED 198 Practicum OR 1-2
COE 199 Cooperative Education OR (1-2) Equivalent Course with Consent of Program Coordinator 3

Subtotal 25-27

ELT 222 Mechanics of Telephony 3
ELT 224 Basic Telecoms Installation and Maintenance 3
ELT 226 Safety in the Workplace OR 2
ISX 100 Industrial Safety OR (3) Equivalent Course with Consent of Program Coordinator 3
ELT 214 Devices II 4
ELT 220 Digital II 3

Subtotal 15-16

Total 46-49

*Technical Electives: Any EET, ELT, JMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Electronics Tester – 1503993089

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SKY, SM)

ELT 110 Circuits I 5
ELT 114 Circuits II 5
ELT 120 Digital I 3

Total 13

Electronics Technician – 1503993069

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY, SM)

ELT 110 Circuits I 5
ELT 114 Circuits II 5
ELT 210 Devices I 4
ELT 214 Devices II 4
ELT 120 Digital I 3
ELT 220 Digital II 3

Total 24

Maintenance Technician – 1503993059

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY)

CAD 100 Introduction to Computer Aided Design OR 3
CAD 103 CAD Fundamentals OR 3
BRX 120 Basic Blueprint Reading OR (4) Equivalent Course with Consent of Program Coordinator 3
ELT 110 Circuits I 5
ELT 114 Circuits II 5
ELT 210 Devices I 4
ELT 120 Digital I 3
ELT 214 Devices II 4
ELT 218 Manufacturing III, Computer Numerical Control OR 3
CAD/CAM/CNC 132 3
CMM 132 Applied Fluid Power 3
ELT 265 Electrical Machinery and Controls OR 4
ELT 270 Electrical Machinery and Controls Lab 2
Programmable Logic Controllers 4
Programmable Logic Controllers Lab 2

Total 24-25

Robotics and Automation Technician – 1503993099

(Offered at BLC, BSC, HEC, HPC, JFC, OWC, SEC, SM)

ELT 110 Circuits I 5
ELT 114 Circuits II 5
ELT 210 Devices I 4
ELT 120 Digital I 3
ELT 214 Devices II 4
ELT 218 Manufacturing III, Computer Numerical Control OR 3
CAD/CAM/CNC 132 3
CMM 132 Applied Fluid Power 3
ELT 265 Electrical Machinery and Controls OR 4
ELT 270 Electrical Machinery and Controls Lab 2
Programmable Logic Controllers 4
Programmable Logic Controllers Lab 2

Total 24-25

Total 55-57
### Academic Curricula

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**Digital Telephony Technician – 1503993119**  
*(Offered at BSC, JFC, SEC)*

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<td>Basic Telecoms Installation and Maintenance</td>
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**Computer Maintenance Technician – 1503993029**  
*(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SMC)*

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<td>EET 234</td>
<td>Computer Hardware Maintenance AND.</td>
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**Industrial Electronics Technician I – 1503993129**  
*(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY)*

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**Industrial Electronics Technician II – 1503993139**  
*(Offered at BLC, BSC, HPC, JFC, OWC, SEC, SKY)*

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**Mechanical Technician – 1503993149**  
*(Offered at BSC, HPC, JFC, OWC, SEC)*

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CAD 100</td>
<td>Introduction to CAD OR</td>
<td>3</td>
</tr>
<tr>
<td>Equivalent Course with Consent of Program Coordinator</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td>ELT 122</td>
<td>Mechanical Power Transmission Systems AND.</td>
<td>3</td>
</tr>
<tr>
<td>ELT 124</td>
<td>Mechanical Power Transmission Systems Lab OR.</td>
<td>1</td>
</tr>
<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment I AND.</td>
<td>(3)</td>
</tr>
<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment I Lab.</td>
<td>(2)</td>
</tr>
<tr>
<td>ELT 265</td>
<td>Applied Fluid Power</td>
<td>3</td>
</tr>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer Aided Drafting</td>
<td>(4)</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>17-19</strong></td>
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**Automation Technician – 1503993229**  
*(Offered at BLC, BSC, HPC, JFC, OWC, SEC, SKY)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ELT 110</td>
<td>Circuits I...</td>
<td>5</td>
</tr>
<tr>
<td>ELT 244</td>
<td>Electrical Machinery and Controls OR.</td>
<td>4</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I AND.</td>
<td>(2)</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls Lab.</td>
<td>(2)</td>
</tr>
<tr>
<td>EET 250</td>
<td>Programmable Logic Controllers OR.</td>
<td>4</td>
</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND.</td>
<td>(2)</td>
</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab.</td>
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**Communications Technician – 1503993039**  
*(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SEC, SMC)*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ELT 110</td>
<td>Circuits I...</td>
<td>5</td>
</tr>
<tr>
<td>ELT 114</td>
<td>Circuits II...</td>
<td>5</td>
</tr>
<tr>
<td>ISM 102</td>
<td>Fundamentals of Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>ISM 210</td>
<td>Fundamentals of Process Control</td>
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**Instrumentation Technician – 1503993189**  
*(Offered at BLC, BSC, ELC, JFC, OWC, SEC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 110</td>
<td>Circuits I...</td>
<td>5</td>
</tr>
<tr>
<td>ELT 114</td>
<td>Circuits II...</td>
<td>5</td>
</tr>
<tr>
<td>ISM 102</td>
<td>Fundamentals of Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

**General Medical Equipment Service Provider - 1503993169**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ELT 110</td>
<td>Circuits I...</td>
<td>5</td>
</tr>
<tr>
<td>ELT 114</td>
<td>Circuits II...</td>
<td>5</td>
</tr>
<tr>
<td>BMT 200</td>
<td>Insight into Biomedical Equipment Technology</td>
<td>2</td>
</tr>
<tr>
<td>BMT 202</td>
<td>General Equipment Studies</td>
<td>3</td>
</tr>
<tr>
<td>BMT 204</td>
<td>Electrical, Mechanical, and Optical Principles</td>
<td>3</td>
</tr>
<tr>
<td>BMT 205</td>
<td>Biomedical Equipment Practices I</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>36</strong></td>
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</tbody>
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**CAD Technician – 1503993199**  
*(Offered at HPC, JFC, OWC, SEC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 100</td>
<td>Introduction to CAD OR</td>
<td>3</td>
</tr>
<tr>
<td>DFT 122</td>
<td>Introduction to Computer Aided Drafting</td>
<td>(4)</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer Aided Drafting</td>
<td>(4)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>7-8</strong></td>
</tr>
</tbody>
</table>

*Technical Electives: Any EET, ENGT, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.*
## Environmental Science Technology

This program includes specialized environmental science courses in addition to general education coursework to provide individuals the background necessary for understanding the ecological relationships of the environment. Coursework also emphasizes the application of scientific principles to pollution control problems in accordance with state and federal regulations. Practical lab and field experience in sampling and analysis will be stressed. Emphasis is placed on developing the students' ability to function effectively in a variety of job situations. Graduates of this program will be prepared to sample and analyze air, water, and soil in accordance with state and federal regulations. Environmental technicians may be responsible for such job duties as air pollution surveillance, analysis of water and wastewater samples, ground water and surface water assessment, field sampling, data interpretation, and other support services to engineering and science professionals. Graduates in this field may be employed as technicians by federal, state and local governmental units as well as utilities, private industry, and environmental engineering consulting firms.

### Admissions Requirements

The following information has been taken from the Rules of the Senate and is subject to change without notice. All applicants meeting the appropriate academic requirements shall be considered equally for admission to Bluegrass Community and Technical College or to any academic program thereof regardless of economic or social status, and without discrimination on the basis of race, color, religion, sex, marital status, beliefs, age, national origin, sexual orientation, or physical or mental disability.

In order to be admitted to the Environmental Science Technology (EST) Program, each student must be admitted to Bluegrass Community and Technical College.

In order to be admitted to the Environmental Science Technology Program, a student must:

1. Complete EST 150, EST 160, and MA 109 with a passing grade or transfer credit from an accredited institution for comparable courses (to be assessed by EST Coordinator), and
2. Attend a pre-admission conference with the EST Program coordinator or the coordinator's designee.

### Associate in Applied Science

Environmental Science Technology - 1505077019  
*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II*</td>
<td>3</td>
</tr>
<tr>
<td>MA 109</td>
<td>College Algebra*</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking* OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Intro to Interpersonal Communications*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences Course*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities Course</td>
<td>3</td>
</tr>
<tr>
<td>CTI 105</td>
<td>Intro to Computing</td>
<td>3</td>
</tr>
<tr>
<td>BIO 112</td>
<td>*Introduction to Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 111</td>
<td>Intro to Biology Lab</td>
<td>1</td>
</tr>
<tr>
<td>EST 150</td>
<td>Introductory Ecology</td>
<td>4</td>
</tr>
<tr>
<td>CIS 130</td>
<td>Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>CHE 170</td>
<td>General College Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHE 175</td>
<td>General College Chemistry Lab I</td>
<td>3</td>
</tr>
<tr>
<td>EST 160</td>
<td>Hydrolic Geology</td>
<td>3</td>
</tr>
<tr>
<td>EST 170</td>
<td>Environmental Sampling Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>EST 220</td>
<td>Pollution of Aquatic Ecosystems</td>
<td>3</td>
</tr>
<tr>
<td>EST 230</td>
<td>Aquatic Chemistry Lab</td>
<td>2</td>
</tr>
<tr>
<td>EST 240</td>
<td>Sources and Effects of Air Pollution</td>
<td>4</td>
</tr>
<tr>
<td>EST 250</td>
<td>Solid and Hazardous Waste Management</td>
<td>3</td>
</tr>
<tr>
<td>EST 260</td>
<td>Environmental Analysis Lab</td>
<td>2</td>
</tr>
<tr>
<td>EST 270</td>
<td>Environmental Law and Regulation</td>
<td>3</td>
</tr>
<tr>
<td>EST 280</td>
<td>Environmental Trends Seminar</td>
<td>1</td>
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</table>

**Total Credits: 66**

### Technical Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHY 151</td>
<td>Introductory Physics I</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education (Internship)</td>
<td>1-3</td>
</tr>
<tr>
<td>EST 299</td>
<td>Selected Topics in EST</td>
<td>1-3</td>
</tr>
<tr>
<td>STA 210</td>
<td>Statistics; A Force in Human Judgment</td>
<td>3</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Intro to Computer-Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>ACH 185</td>
<td>Computer-Aided Drafting I</td>
<td>3</td>
</tr>
<tr>
<td>GIS 110</td>
<td>Spatial Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GIS 120</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 234</td>
<td>Advanced Spreadsheet Applications</td>
<td>3</td>
</tr>
<tr>
<td>ENG 203</td>
<td>Business Writing</td>
<td>3</td>
</tr>
<tr>
<td>CHE 180</td>
<td>General College Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHE 185</td>
<td>General College Chemistry Lab II</td>
<td>3</td>
</tr>
<tr>
<td>GEO 210</td>
<td>Pollutions, Hazards, and Environmental Mgmt.</td>
<td>3</td>
</tr>
<tr>
<td>GLY 220</td>
<td>Principles of Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>CE 211</td>
<td>Surveying</td>
<td>4</td>
</tr>
</tbody>
</table>

Courses not on this list may be approved at the coordinator's discretion.

* Satisfies General Education requirement for AAS degree.

## Environmental Technology

The environmental technology program has been developed in concert with various regulatory agencies, state universities and businesses and industries. Environmental Technicians conducts tests and field investigations to obtain data for use by environmental, engineering, and scientific personnel in determining sources and methods of controlling pollutants in air, water and soil, by utilizing knowledge of agriculture, chemistry, meteorology, engineering principles and applied technologies.

### Certificates

#### Hazardous Materials Technician - 1505073019  
*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENV 100</td>
<td>Environmental Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 120</td>
<td>Environmental Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ENV 121</td>
<td>Environmental Chemistry Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 260</td>
<td>Hazardous Materials</td>
<td>3</td>
</tr>
<tr>
<td>ENV 261</td>
<td>Hazardous Materials Lab</td>
<td>3</td>
</tr>
<tr>
<td>ENV 270</td>
<td>Treatment and Disposal Technologies</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
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**Total Credits: 37**

#### Waste Processing Attendant - 1505073029

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 260</td>
<td>Hazardous Materials</td>
<td>3</td>
</tr>
<tr>
<td>ENV 261</td>
<td>Hazardous Materials Lab</td>
<td>3</td>
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</tbody>
</table>
Electives:
ENV 293 Special Problems I ................................................. (1)
ENV 295 Special Problems II ............................................... (2)
ENV 297 Special Problems III ............................................. (3)
Total Credits 21

Wastewater Treatment Plant Attendant - 1505073039

ENV 110 Introduction to Environmental Technology ................... 4
ENV 111 Environmental Sampling Techniques Lab ............. 2
ENV 140 Geology, Hydrology and Soils ................................ 4
ENV 141 Geology, Hydrology and Soils Lab ...................... 2
ENV 290 Wastewater Treatment Technology ..................... 2
ENV 291 Wastewater Treatment Technology Lab ............... 2

Electives:
ENV 293 Special Problems I ................................................. (1)
ENV 295 Special Problems II ............................................... (2)
ENV 297 Special Problems III ............................................. (3)
Total Credits 20

Wastewater Treatment Plant Operator - 1505073049

CPU 100 Introduction to Computers ........................................ 3
ENV 100 Environmental Mathematics ..................................... 3
ENV 110 Introduction to Environmental Technology ................... 4
ENV 111 Environmental Sampling Techniques Lab ............. 2
ENV 120 Environmental Chemistry ....................................... 3
ENV 121 Environmental Chemistry Lab ............................ 1
ENV 140 Geology, Hydrology and Soils ................................ 4
ENV 141 Geology, Hydrology and Soils Lab ...................... 2
ENV 270 Treatment and Disposal Technologies .................... 3
ENV 290 Wastewater Treatment Technology ..................... 6
ENV 291 Wastewater Treatment Technology Lab ............... 2
TEC 200 Technical Communications ................................... 3

Electives:
ENV 293 Special Problems I ................................................. (1)
ENV 295 Special Problems II ............................................... (2)
ENV 297 Special Problems III ............................................. (3)
Total Credits 36

Academic Curricula

**Wastewater Treatment Plant Attendant - 1505073059**

ENV 110 Introduction to Environmental Technology ................... 4
ENV 111 Environmental Sampling Techniques Lab ............. 2
ENV 140 Geology, Hydrology and Soils ................................ 4
ENV 141 Geology, Hydrology and Soils Lab ...................... 2
ENV 280 Water Treatment Technology .............................. 6
ENV 281 Water Treatment Technology Lab ..................... 2

Electives:
ENV 293 Special Problems I ................................................. (1)
ENV 295 Special Problems II ............................................... (2)
ENV 297 Special Problems III ............................................. (3)
Total Credits 20

**Water Treatment Plant Operator - 1505073069**

CPU 100 Introduction to Computers ........................................ 3
ENV 100 Environmental Mathematics ..................................... 3
ENV 110 Introduction to Environmental Technology ................... 4
ENV 111 Environmental Sampling Techniques Lab ............. 2
ENV 120 Environmental Chemistry ....................................... 3
ENV 121 Environmental Chemistry Lab ............................ 1
ENV 140 Geology, Hydrology and Soils ................................ 4
ENV 141 Geology, Hydrology and Soils Lab ...................... 2
ENV 270 Treatment and Disposal Technologies .................... 3
ENV 280 Water Treatment Technology .............................. 6
ENV 281 Water Treatment Technology Lab ..................... 2
TEC 200 Technical Communications ................................... 3

**Equine Studies**

The Equine Studies Program prepares students for entrance into the equine workforce with a focus on the thoroughbred racing industry. A core curriculum provides students with a foundation of knowledge applicable to any career in the equine workforce. Students will learn the basics of horse care, anatomy and physiology, lameness, health and nutrition and equine business principles. Students will also learn all aspects of the equine industry as it relates to the thoroughbred industry including organizations, regulations, and the life skills necessary for successful careers in the industry.

The program of study provides a foundation of education and training geared toward the expectations of employers in the equine/thoroughbred industries within two degree areas: Jockey Track and Horseman Track. Imbedded within the curriculum for each track are diplomas and certificates that provide the basic foundational skills for entry or mid-level employment in the respective area of the industry.

Jockey Track degree and diploma graduates will have the knowledge and skills for a career as a professional rider. Students will learn principles of balance as it relates to efficient racehorse exercise; proper position and use of hands, arms, feet, legs, back and head when riding or exercising a racehorse; requirements for advancing to a professional jockey career; and life skills necessary to be a professional racehorse rider or jockey. Imbedded within the Jockey Track curriculum is the Exercise Rider Certificate that provides basic skills and techniques to prepare the student to become a professional exercise rider.

Horseman Track graduates will have the knowledge and skills for a career in the equine/thoroughbred workforce such as grooms, assistant trainers, racing officials, farm management, bloodstock agents and other professions in the racing and breeding industries. Students will learn the principles and techniques as they relate to the breaking, prepping and training of horses; health and nutrition; equine management; and life skills necessary to be a professional in the equine/thoroughbred workforce. Imbedded in the Horseman Track curriculum is the Racehorse Care and Breaking Certificate to provide students with the basics of horse care and principles and techniques as they relate to the breaking and prepping of horses.

Other Certificates:

The Equine Industry Workforce Certificate will prepare students for entry level careers in the equine industry. Students will learn the basics of equine studies, equine physiology, and care of the racehorse. Lecture classes will be provided online through BCTC/NARA, while the hands-on laboratory work associated with the courses may be offered by BCTC/NARA or in partnerships with other KCTCS colleges and race courses within their districts.

The Veterinary Assistant Certificate will prepare students for application into the AAS in Veterinary Technology program at Morehead State University. Students will receive a core of general education courses, as well as an introduction to animal sciences and physiology. The racehorse care class and one credit hour of co-operative education in a local veterinary clinic will provide the student with the work experience/job shadowing hours typically required for consideration of acceptance into a Veterinary Technology program.
### Associate in Applied Science

**Equine Studies - 010507701**  
*(Offered at BLC)*

#### General Education:

- Quantitative Reasoning ........................................ 3
- Natural Sciences .................................................. 3
- Social/Behavioral Sciences ...................................... 3
- Heritage/Humanities ............................................. 3
- Written Communication .......................................... 3

**Total General Education Requirements** 15

#### Technical Core:

- EQS 101 Introduction to the Thoroughbred .................. 3
- EQS 103 Racehorse Care ........................................ 1
- EQS 104 Racehorse Care Lab ................................... 3
- EQS 110 Basic Equine Physiology ............................... 3
- EQS 125 Equine Nutrition ......................................... 3
- EQS 130 Introduction to the Racing Industry ............... 3
- EQS 200 Lameness in Racehorses ............................... 3
- EQS 240 Equine Legal and Business Principles ............. 3
- Technical Electives ............................................... 6

**Total Technical Core** 28-31

**Horseman Track - 010507702**  
*(Offered at BLC)*

- EQS 118 Equine Bloodstock ...................................... 3
- EQS 121 Introduction to Breaking and Training Racehorses 1
- EQS 122 Yearling Breaking and Training ........................ 3
- EQS 123 Breaking and Prepping Two Year Olds .............. 3
- EQS 223 Training Principles and Practices ................. 4
- EQS 225 Life Skills for Horsemen .............................. 3

**Subtotal Horseman Track** 17

**Total Horseman Track** 60-63

---

### Jockey Track - 010507401

*(Offered at BLC)*

- EQS 111 Introduction to Riding Racehorses ................ 1
- EQS 112 Racehorse Riding Skills I ............................ 4
- EQS 113 Racehorse Riding Skills II ........................... 4
- EQS 212 Racehorse Riding Principles ........................ 3
- EQS 213 Racehorse Riding Techniques ......................... 2
- EQS 215 Life Skills for Jockeys ................................ 3

**Subtotal Jockey Track** 17

**Total Jockey Track Diploma** 52-55

---

### Horseman Track - 010507402

*(Offered at BLC)*

- EQS 118 Equine Bloodstock ...................................... 3
- EQS 121 Introduction to Breaking and Training Racehorses 1
- EQS 122 Yearling Breaking and Training ........................ 3
- EQS 123 Breaking and Prepping Two Year Olds .............. 3
- EQS 223 Training Principles and Practices ................. 4
- EQS 225 Life Skills for Horsemen .............................. 3

**Subtotal Horseman Track** 17

**Total Horseman Track** 52-55

---

### Approved Technical Electives

Any EQM or EQS course from alternate track. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.  

- SPA 101 Elementary Spanish .................................... 4
- EQM 120 Introduction to Commercial Breeding Practices .... 3
- EQS 118 Equine Bloodstock ...................................... 3
- EQS 299 Equine Cooperative Education (internship) ........ 1-9

---

### Diplomas

**Equine Studies - 010507401**  
*(Offered at BLC)*

**Certificate**

**Exercise Rider - 0105073019**  
*(Offered at BLC)*

- EQS 101 Introduction to the Thoroughbred .................. 3
- EQS 103 Racehorse Care ........................................ 1
- EQS 104 Racehorse Care Lab ................................... 3
- EQS 110 Basic Equine Physiology ............................... 3
- EQS 111 Introduction to Riding Racehorses ................. 1
- EQS 112 Racehorse Riding Skills I ............................ 4
- EQS 113 Racehorse Riding Skills II ........................... 4
- EQS 114 Introduction to the Racing Industry .............. 3

**Total Credits** 22
**Racehorse Care and Breaking - 0105073049**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>EQS 101</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103</td>
<td>1</td>
</tr>
<tr>
<td>EQS 104</td>
<td>3</td>
</tr>
<tr>
<td>EQS 110</td>
<td>3</td>
</tr>
<tr>
<td>EQS 121</td>
<td>3</td>
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<tr>
<td>EQS 123</td>
<td>3</td>
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<tr>
<td>EQS 125</td>
<td>3</td>
</tr>
<tr>
<td>EQS 130</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits**: 20

**Equine Industry Workforce - 0105073039**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>EQS 101</td>
<td>3</td>
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<tr>
<td>EQS 103</td>
<td>1</td>
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<tr>
<td>EQS 104</td>
<td>3</td>
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<tr>
<td>EQS 299</td>
<td>3</td>
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<tr>
<td>EQS 130</td>
<td>3</td>
</tr>
<tr>
<td>EQS 200</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits**: 16

**Veterinary Assistant - 0105073059**

*(Offered at BLC, MYC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>BIO 112</td>
<td>3</td>
</tr>
<tr>
<td>CHE 140</td>
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<tr>
<td>CHE 145</td>
<td>3</td>
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<td>COM 181</td>
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<td>MAT 116</td>
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<td>AGR 240</td>
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<td>EQS 104</td>
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</tr>
<tr>
<td>EQS 110</td>
<td>3</td>
</tr>
<tr>
<td>EQS 299</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Credits**: 27

**Exercise Science**

The Personal Trainer Certificate Program is comprised of American Council on Exercise (ACE) curricula, and will provide real-world experiences, skills, and knowledge needed to assess, design, and implement a personalized exercise program for clients. Graduates are eligible to take the ACE Personal Trainer Exam to become ACE-certified personal trainers.

**Certificate**

**Exercise Science Certificate – 5109993029**

*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>MIT 103</td>
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</tr>
<tr>
<td>CLA 131</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>3</td>
</tr>
<tr>
<td>CPR 100</td>
<td>1</td>
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<tr>
<td>SFA 100</td>
<td>1</td>
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<td>BAS 200</td>
<td>3</td>
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<td>BAS 288</td>
<td>3</td>
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<td>MSG 100</td>
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<td>BIO 135</td>
<td>3</td>
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<td>KHP 150</td>
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</tr>
<tr>
<td>KHP 160</td>
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<td>KHP 225</td>
<td>3</td>
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<tr>
<td>KHP 235</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits**: 23

**Financial and Customer Services**

This certificate is designed to provide students with the financial, communication, and customer service skills necessary to be successful in the global financial services market. The certificate will require four primary areas of study including two fundamental courses, Spanish and customer service, and two courses in finance and communication, which enable different areas of emphasis.

**Certificate**

**Financial and Customer Services Certificate – 5208033019**

*(Offered at OWC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA 101</td>
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<tr>
<td>QMS 201</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>3</td>
</tr>
<tr>
<td>BAS 294</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits**: 13

**Fire/Rescue Science Technology**

If you are interested in a career in the fire service, the Fire/Rescue Science Technology Program will prepare you for the challenges facing today's emergency responders. In the program you will learn the skills of fire suppression and prevention, technical rescue, hazardous materials, emergency medical care, and leadership. This program is beneficial whether you are seeking a career in emergency services (Fire, Rescue, EMS or Emergency Management) or if you are already involved in providing fire, rescue or EMS services in your community.

Students may enter the program with or without experience in emergency services. The degree, certificate, and diploma programs that are offered can help you in obtaining employment in various emergency service fields, or if you are already a firefighter, help you get that promotion you have been waiting for. Classes are offered through State Fire/Rescue Training and may be offered in various formats such as: Web courses, hybrid courses, and traditional classroom offerings. For more information regarding this program, contact your local State Fire/Rescue Training Area Office or see the list of contacts on page 69.

**Emergency Medical Technician Certificate:**

Students in the Emergency Medical Technician program are instructed in the proper care of sick and injured patients. Students are trained to treat victims suffering from traumatic and medical emergencies such as broken bones, puncture wounds, cardiac, and respiratory emergencies, vehicle accidents and more. This course meets the standards set forth by the US Department of Transportation National Standard Curriculum for EMT-Basic and the Kentucky Board of Emergency Medical Services. Students that successfully complete the course and its requirements will be awarded a certificate for Emergency Medical Technician, and will be prepared to challenge the certification examination process set forth by the Kentucky Board of Emergency Medical Services.
NOTE: All FRS courses are available in modules; see course description section.

Technical Courses:
- Computer/Digital Literacy: 0-3
- FRS 101 Introduction to Fire Service: 3
- FRS 102 Firefighters Basic Skills I: 3
- FRS 103 Firefighters Basic Skills II: 3
- FRS 104 Firefighters Intermediate Skills I: 3
- FRS 105 Firefighters Intermediate Skills II: 3
- FRS 201 Firefighters Advanced Skills I: 3
- FRS 202 Firefighters Advanced Skills II: 3
- FRS 203 Firefighters Advanced Skills III: 3
- FRS 204 EMT First Responder: 3
- FRS 205 Fire Officer I: 3
- FRS 206 Fire Officer II: 8
- FRS 207 Fire Officer III: 6

Subtotal 46-49
Total Credits 61-64

NOTE: All FRS courses are available in modules; see course description section.

Diploma

Fire Chief - 4302034039
(Offered at ASC, BLC, ELC, GTW, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

General Education:
- Area 1: Written Communication, Oral Communications, or Humanities/Heritage: 3
- Area 2: Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning: 3

Subtotal 6

Technical Courses:
- Computer/Digital Literacy: 0-3
- FRS 101 Introduction to Fire Service: 3
- FRS 102 Firefighters Basic Skills I: 3
- FRS 103 Firefighters Basic Skills II: 3
- FRS 104 Firefighters Intermediate Skills I: 3
- FRS 105 Firefighters Intermediate Skills II: 3
- FRS 201 Firefighters Advanced Skills I: 3
- FRS 202 Firefighters Advanced Skills II: 3
- FRS 203 Firefighters Advanced Skills III: 3
- FRS 204 EMT First Responder: 3
- FRS 205 Fire Officer I: 3
- FRS 206 Fire Officer II: 8
- FRS 207 Fire Officer III: 6

Subtotal 46-49
Total Credits 52-55

NOTE: All FRS courses are available in modules; see course description section.

Certificate

Basic Firefighter - 4302033019
(Offered at ASC, BLC, BSC, ELC, GTW, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

FRS 101 Introduction to Fire Service: 3
FRS 102 Firefighters Basic Skills I: 3
FRS 103 Firefighters Basic Skills II: 3
FRS 104 Firefighters Intermediate Skills I: 3

Total Credits 12

NOTE: All FRS courses are available in modules; see course description section.

Advanced Firefighter - 4302033029
(Offered at ASC, BLC, BSC, ELC, GTW, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

FRS 101 Introduction to Fire Service: 3
FRS 102 Firefighters Basic Skills I: 3
FRS 103 Firefighters Basic Skills II: 3
FRS 104 Firefighters Intermediate Skills I: 3
FRS 105 Firefighters Intermediate Skills II: 3
FRS 201 Firefighters Advanced Skills I: 3
FRS 202 Firefighters Advanced Skills II: 3
FRS 203 Firefighters Advanced Skills III: 3

Total Credits 24

NOTE: All FRS courses are available in modules; see course description section.

Fire Officer - 4302033039
(Offered at ASC, BLC, BSC, ELC, GTW, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

FRS 2051 Fire Prevention, Public Education and Fire Cause Determination II: 0.5
FRS 2052 Firefighter Survival and Rescue: 1.1
FRS 2053 Hazardous Materials Technician: 3.4
FRS 2062 Managing Company Tactical Operations: Decision Making: 1.0
FRS 2063 Instructional Techniques for Company Officers: 1.0
FRS 2071 Company Officer: 3.5
FRS 2072 Incident Command System (ICS): 0.9
FRS 2073 Leadership I: Strategies for Company Success: 0.8
FRS 2074 Fire/Arson Detection (Arson I): 0.8

Total Credits 13

NOTE: All FRS courses are available in modules; see course description section.

Emergency Medical Technician - 5109042010
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

FRS 2061 Emergency Medical Technician: 6
Total Credits 6

NOTE: Contact faculty concerning pre-requisites.

General Occupational/Technical Studies

The Associate in Applied Science degree in General Occupational/Technical Studies provides flexible alternatives for meeting student and employer needs. This program serves two general purposes: 1) Individualized program – provides a flexible curriculum that can be designed to meet specific student and workplace needs, and 2) Degree completion – provides a structure through which credit may be granted for significant prior learning experiences in occupational/technical areas.

Credit earned through certificate and diploma program completion will be applicable toward the Associate in Applied Science in General Occupational/Technical Studies degree when consistent with the objectives of the student’s individual plan of study. This heavily advisor-driven model can combine certificates and/or diplomas in different disciplines for meeting employer needs for unique skill combinations for which there is no established degree program. As much as twenty hours of credit
for experiential learning may be applied toward degree completion. KCTCS certificate and diploma credit and acceptable credit transferred from other colleges may also be applied to a student’s program completion plan. At least 25 percent of the approved curriculum credits must be completed at the KCTCS institution granting the degree.

**Associate in Applied Science**

**General Occupational/Technical Studies - 3099997017**

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SHC, WKC)

Available Completely Online

**General Education Component Minimum**

- Quantitative Reasoning ........................................ 3
- Natural Sciences .................................................. 3
- Social/Behavioral Sciences ....................................... 3
- Heritage/ Humanities ............................................ 3
- Written Communication ......................................... 3
- Additional General Education coursework .................. 0-5

**Total Subtotal** .................................................. 15-20

**Technical Component Minimum**

- Computer/Digital Literacy (Computer/Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course) .................. 0-3
- Technical Courses .................................................. 45-50

**Total Subtotal** .................................................. 45-53

**Total Credits** .................................................. 60-68

**NOTE:**

1. If computer/digital literacy is demonstrated by a competency exam, an additional three credit hour course is required.
2. The student must have a plan of study on file in the academic affairs office.
3. A combination of general education and technical courses should not exceed 68 credits.

**Geospatial Technology**

The rapidly growing field of Geospatial Technologies (GST) enables users of spatial data the ability to make informed decisions. GST utilizes both time and place as analysis factors. GST is recognized by the U.S. Department of Labor as a high growth, high wage, green industry with a bright outlook. Completers of the certificate will have the skills for employ-ment in GST or associated fields such as Unmanned Aircraft System, agriculture, remote sensing, geospatial intelligence, environmental science, crime analysis, and/or demographics.

**Certificate**

**Applications of Geospatial Technology – 4507023029**

(Offered at )

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 125</td>
<td>Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>CIT 225</td>
<td>GIS Software Tools</td>
<td>3</td>
</tr>
<tr>
<td>GIS 145</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GIS 255</td>
<td>Geospatial Programming</td>
<td>3</td>
</tr>
<tr>
<td>GIS 260</td>
<td>Geospatial Web Mapping</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits** .................................................. 15

**Global Studies**

The Associate of Applied Science Degree in Global Studies (Transfer) is designed to prepare students to be more globally aware and globally literate employees and citizens of the Commonwealth of Kentucky, the United States, and the world. It exposes students to a diverse set of courses and competencies which will prepare them to live and work in settings with diverse ethnic and cultural populations and to function more effectively as members of an increasingly interconnected world.

**Associate in Applied Science**

**Global Studies – 3020017019**

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I AND</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 105</td>
<td>Writing: An Accelerated Course AND</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
<td>MAT 164</td>
<td>College Algebra</td>
<td>(3)</td>
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<tr>
<td>COM 254</td>
<td>Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>GBS 290</td>
<td>Global Studies Capstone Course</td>
<td>3</td>
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</table>

**Global Studies Social Interaction** .................................................. 6

**Total Credits** .................................................. 62-64

1. General Education
2. Select from Global Studies Humanities/Fine Arts list.
3. Students who pass the computer/digital literacy exam in lieu of completing an approved computer/digital literacy course must take an additional three (3) credits of Global Studies credit from the approved Global Studies course lists.
4. Select from Global Studies Heritage list.
5. Select from Global Studies Natural Science list.
6. Select from Global Studies Social Interaction list.

**Certificate**

**Global Studies – 3020013010**

(Offered at ELC, JFC)

<table>
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<th>Credits</th>
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<tr>
<td>COM 254</td>
<td>Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td></td>
<td>4</td>
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<tr>
<td>GBS 290</td>
<td>Global Studies Capstone Course</td>
<td>3</td>
</tr>
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</table>

**Total Credits** .................................................. 19

1. Select from Global Studies Humanities/Fine Arts list.
2. Select from Global Studies Heritage list.
3. Select from Global Studies Natural Science list.
4. Select from Global Studies Social Interaction list.
Health Care Foundations

This certificate will prepare entry-level health care workers with basic health care knowledge and skills in the areas of health care delivery and management, health care communication, basic skills I & II, pharmacology, clinical pathophysiology and medical terminology.

Certificate

Health Care Foundations-Basic - 5100003030

(Offered at ASC, JFC)

<table>
<thead>
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<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>HST 101</td>
<td>Health Care Basic Skills I OR</td>
<td>3</td>
</tr>
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<td>HST 102</td>
<td>Health Care Basic Skills I with Clinical</td>
<td>3.5</td>
</tr>
<tr>
<td>HST 103</td>
<td>Health Care Delivery &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
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Health Care Foundations-Intermediate - 5100003020

(Offered at ASC, JFC)

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<th>Title</th>
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<tbody>
<tr>
<td>HST 101</td>
<td>Health Care Basic Skills I OR</td>
<td>3</td>
</tr>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical</td>
<td>3.5</td>
</tr>
<tr>
<td>HST 102</td>
<td>Health Care Delivery &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HST 121</td>
<td>Pharmacology</td>
<td>2</td>
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<tr>
<td>HST 122</td>
<td>Clinical Pathophysiology</td>
<td>3</td>
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<tr>
<td>HST 123</td>
<td>Health Care Basic Skills II</td>
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</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>18-18.5</td>
</tr>
</tbody>
</table>

Health Information Technology

This program prepares the graduate to take an active role in the field of health information management. Graduates will interact with physicians, health professionals, and financial and administrative staffs to ensure the protection of information systems. Graduates will help determine health information budgets, resources and policies, utilizing current and accurate data. The curriculum includes course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area health care facilities. Students enrolled in the Health Information Program are required to achieve a minimum grade of “C” in each course in the program.

Health Information Technicians are employed in hospitals, medical clinics, nursing homes, other health care facilities and industry. Graduates with the AAS degree are qualified to write the American Health Information Management Association’s / Commission on Certification for Health Informatics and Information Management (CCHIIM) Registered Health Information Technician examination and the CCA coding examination. Graduates of the medical records coding specialist certificate may write the American Health Information Management Association’s CCA coding examination and the American Academy of Professional Coders’ CPC-A (and others as qualified) coding examinations.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first HIT course.

The Associate in Science Degree Health Information Technology Program at Jefferson Community and Technical College is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). Additional information may be found at CAHIIM’s website URL: http://cahiim.org

Associate in Applied Science

Health Information Technology - 5107077019

(Offered at BLC, GTW, HZC, JFC)

General Education Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Human Anatomy and Physiology with laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
<td>4</td>
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<tr>
<td>MAT 110</td>
<td>Applied Math OR</td>
<td>3</td>
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<td>MAT 150</td>
<td>College Algebra</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology OR</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
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Technical Course Requirements:

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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek or Latin OR</td>
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</tr>
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<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HST 100</td>
<td>Introduction to Healthcare Delivery Systems</td>
<td>3</td>
</tr>
<tr>
<td>HIT 105</td>
<td>Patho/Pharm for Health Information Professionals</td>
<td>4</td>
</tr>
<tr>
<td>CTT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration</td>
<td>3</td>
</tr>
<tr>
<td>HIT 109</td>
<td>Clinical Classification Systems I</td>
<td>4</td>
</tr>
<tr>
<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
<td>2</td>
</tr>
<tr>
<td>HIT 112</td>
<td>Reimbursement Methodologies</td>
<td>3</td>
</tr>
<tr>
<td>HIT 200</td>
<td>Information Systems in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HIT 202</td>
<td>Clinical Classification Systems II</td>
<td>3</td>
</tr>
<tr>
<td>HIT 205</td>
<td>Performance Improvement in Health Information</td>
<td>3</td>
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<tr>
<td>HIT 207</td>
<td>Clinical Classification Systems III</td>
<td>3</td>
</tr>
<tr>
<td>HIT 211</td>
<td>Health Care Management &amp; Statistics</td>
<td>3</td>
</tr>
<tr>
<td>HIT 2151</td>
<td>Clinical Practicum I AND</td>
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<tr>
<td>HIT 2152</td>
<td>Clinical Practicum II</td>
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</table>

Total Credits: 63-67

NOTE: BIO 137 and BIO 139 are required at JCTC.

Certificate

Medical Record Coding Specialist- 5107073019

(Offered at GTW, JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek or Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
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<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Human Anatomy and Physiology with laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>HIT 100</td>
<td>Introduction to Health Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>HIT 105</td>
<td>Patho/Pharm for Health Information Professionals</td>
<td>4</td>
</tr>
<tr>
<td>HIT 109</td>
<td>Clinical Classification Systems I</td>
<td>4</td>
</tr>
<tr>
<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
<td>2</td>
</tr>
<tr>
<td>HIT 112</td>
<td>Reimbursement Methodologies</td>
<td>3</td>
</tr>
<tr>
<td>HIT 202</td>
<td>Clinical Classification Systems II</td>
<td>3</td>
</tr>
<tr>
<td>HIT 207</td>
<td>Clinical Classification Systems III</td>
<td>3</td>
</tr>
<tr>
<td>HIT 215</td>
<td>Clinical Practicum OR</td>
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<tr>
<td>HIT 2151</td>
<td>Clinical Practicum I</td>
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<tr>
<td>Subtotal</td>
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<td>31-37</td>
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</tbody>
</table>

Release of Information Data Specialist – 5107073039

(Offered at GTW, JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIT 100</td>
<td>Introduction to Health Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
<td>2</td>
</tr>
<tr>
<td>Subtotal</td>
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<td>5</td>
</tr>
</tbody>
</table>
The Health Physics program is designed to prepare students to conduct health physics activities in a variety of occupational and environmental settings. Students will study the basic properties of radiation including its origin, its interactions with matter, and radiation detection procedures. Rules and regulations governing human exposure to occupational radiation health hazards are covered. Emphasis is placed on the proper use of survey instrumentation to detect and measure occupational radiation health hazards, the equipment and techniques employed to conduct workplace and environmental surveys, and the current technologies used in hazard control. The Radiation Control Technician certificate prepares students for employment in a Department of Energy (DOE) facility. The AAS degree in Health Physics prepares the graduate for the National Registry of Radiation Protection Technologists examination and for employment at a nuclear facility.

**Associate in Applied Science**

**Health Physics - 5122057019**

**General Education Courses**

- PHY 152 Introduction to Physics OR higher level Physics course 3
- CHE 140 Introductory General Chemistry 3
- CHE 145 Introductory General Chemistry Laboratory 1
- BIO 112 Introduction to Biology 3
- BIO 113 Introduction to Biology Lab 1
- MAT 150 College Algebra or higher level
- Quantitative Reasoning course 3
- ENG 101 Writing I 3
- ENG 102 Writing II 3
- COM 181 Basic Public Speaking OR 3
- COM 252 Introduction to Interpersonal Communication 3
- Social/Behavioral Sciences 3
- Heritage/Humanities 3
- Subtotal 29

**Technical Courses**

- Computer/Digital Literacy* 0-3
- HPH 101 Health Physics I 3
- HPH 102 Health Physics II 3
- HPH 120 Radiation Biology 3
- HPH 201 Nuclear Instrumentation and Measurement I 4
- HPH 202 Nuclear Instrumentation and Measurement II 4
- HPH 246 Environmental Law 2
- ISX 100 Industrial Safety 3
- QMS 101 Introduction to Quality Systems 3
- ITE 250 Team Dynamics and Problem Solving 3
- BAS 287 Supervisory Management 3
- Subtotal 31-34
- Total 60-63

*Computer/Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

**Certificate**

**Radiation Control Technician - 5122053039**

(Offered at WKC)

- HPH 100 Health Physics Fundamentals 3
- HPH 101 Health Physics I 3
- HPH 102 Health Physics II 3
- HPH 201 Nuclear Instrumentation and Measurement I 4
- HPH 202 Nuclear Instrumentation and Measurement II 4
- Total Credits 17

The Health Science Technology (HST) program is designed to prepare students for entry-level career opportunities in the field of healthcare and health-related services. The program is designed for those students who seek entry level jobs as well as for the currently employed individual wishing to broaden skills for career enhancement. Graduates will possess marketable skills sets for direct services as well as the foundation needed to understand current health care delivery. Many of the general education and core courses are required for completion of varied professional health programs. Examples include diagnostic medical sonography, medical assisting, nursing, physical therapy assistant, radiography, respiratory care, and surgical technology. The HST provides a smooth transition or career pathway to an Allied Health or nursing selective admission program once a student is accepted.

A grade of "C" or better is required in each biological science and quantitative reasoning course.

**Associate in Applied Science**

**Health Science Technology – 5100007019**

(Offered at ASC, BSC, HPC, JFC, MDC, WKC)

**General Education**

- MAT 150 College Algebra and Functions OR 3
- MAT 110 Applied Math 3
- ENG 101 Writing I (3)
- ENG 102 Writing II 3
- FYE 105 Achieving Academic Success 3
- BIO 135 Basic Human Anatomy OR 4
- BIO 137 Human Anatomy & Physiology I AND 4
- BIO 139 Human Anatomy & Physiology II 4
- PSY 110 General Psychology 3
- Social/Behavioral Sciences 3
- Heritage/Humanities 3
- Oral Communications 3
- Subtotal 25-29

**Technical Core:**

- CLA 131 Medical Terminology from Greek and Latin OR 3
- AHS 115 Medical Terminology OR 3
- MIT 103 Medical Office Terminology (3)
- NAA 100 Nursing Assistant Skills I 3
- Digital Literacy* 0-3
- Health Science Technical Courses** 29-30
- Subtotal 35-39
- Total 60-68

#Digital Literacy must be demonstrated by computer exam or successfully completing a digital literacy course.

**Health Science Technical Course selection must result in final attainment of a minimum of three (3) certificate credentials.

Students may be able to earn certificates that are already present in other curricula, including but not limited to:

- Nursing Assistant
- Advanced Nursing Assistant
- Pharmacy Technician I
- Medical Coding
- Phlebotomy for the Healthcare Worker
- Medical Office Radiology

Student may take the following courses to meet the required 60 credit hours needed for the Health Science Technology degree:

- AHS 100 BIO 137 EFM 100 HST 122 PHY 172
- AHS 105 BIO 139 HST 101 HST 123 PLW 130
- AHS 115 BIO 225 HST 102 NAA 102 PLW 135
- AHS 201 CT 105 HST 103 OST 110 PLW 140
- AHS 203 COM 181 HST 104 PHY 152 TEC 200
- BAS 120 COM 252 HST 121 PHY 171 WPP 200

157
Healthcare Facilities Leadership

The Healthcare Facilities Leadership program prepares students for a highly innovative and rapidly changing professional career as a Healthcare Facilities Leader/Manager. Students receive an education in office and hospital procedures, client relations and communications, leadership, finances, energy management, public speaking, construction, infection control, maintenance operations, and codes and compliance. This knowledge can be used to gain employment locally, regionally, or nationally. Overall, the students in this program receive an education that provides marketable skills, preparing them to be employed in a high demand profession.

Associate in Applied Science

Healthcare Facilities Leadership – 5107997019

(Offered at OWC)

General Education Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
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</tr>
<tr>
<td>MAT 150</td>
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<tr>
<td>PHI 110</td>
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<td>HFL 130</td>
<td>3</td>
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<td>HFL 140</td>
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<td>HFL 150</td>
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<td>CHE 170</td>
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<td>CHE 175</td>
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<td>BIO 112</td>
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<tr>
<td>COM 181</td>
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<td>ESP 101</td>
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<td>HFL 230</td>
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<td>HFL 240</td>
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<td>HFL 260</td>
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<tr>
<td>HFL 270</td>
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<tr>
<td>BAS 287</td>
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<td>BAS 212</td>
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<tr>
<td></td>
<td>Total Credits 65</td>
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Digital Literacy or Elective (if Digital Literacy is satisfied)

BAS 288 Personal and Organizational Leadership

Total Technical Credits 29-32

Total Credits 35-38

Certificates

Backhoe Operator - 4902023069

(Offered at HZC, SEC, WK)

<table>
<thead>
<tr>
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<tr>
<td>HEO 125</td>
<td>3</td>
</tr>
<tr>
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<td>Total Credits 12</td>
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Bulldozer Operator- 4902023029

(Offered at HZC, SEC, WK)

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<thead>
<tr>
<th>Course</th>
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<tr>
<td>HEO 111</td>
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<td>DIT 103</td>
<td>2</td>
</tr>
<tr>
<td>HEO 125</td>
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</tr>
<tr>
<td></td>
<td>Total Credits 12</td>
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</table>

Front-End Loader Operator - 4902023079

(Offered at HZC, SEC, WK)

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<tr>
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<tr>
<td>DIT 103</td>
<td>2</td>
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<tr>
<td>HEO 125</td>
<td>3</td>
</tr>
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<td>Total Credits 12</td>
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Motor-Grader Operator - 4902023049

(Offered at HZC, SEC, WK)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEO 106</td>
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<tr>
<td>DIT 103</td>
<td>2</td>
</tr>
<tr>
<td>HEO 125</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits 12</td>
</tr>
</tbody>
</table>

Hydraulic Excavator Operator - 4902023059

(Offered at HZC, SEC, WK)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HEO 151</td>
<td>6</td>
</tr>
<tr>
<td>HEO 115</td>
<td>7</td>
</tr>
<tr>
<td>DIT 103</td>
<td>2</td>
</tr>
<tr>
<td>HEO 125</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits 18</td>
</tr>
</tbody>
</table>

Heavy Equipment Operation

Designed to instruct students in the safe operation of heavy equipment, e.g., bulldozers, backhoes, front-end loaders, hydraulic excavators and graders. Instruction in digging, ditching, sloping, stripping, grading, backfilling, clearing trees and rubble, and foundation excavating is provided as well as instruction in the proper care and maintenance of equipment.

Diploma

Operating Engineer - 4902024019

(Offered at HZC, SEC)

General Education:

<table>
<thead>
<tr>
<th>Area</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Written Communication, Oral Communications, or Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
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</tr>
<tr>
<td></td>
<td>*MAT 116 or higher level Quantitative Reasoning course required at SEC</td>
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</table>

Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ISX 100</td>
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</tr>
<tr>
<td>DIT 103</td>
<td>2</td>
</tr>
<tr>
<td>HEO 151</td>
<td>6</td>
</tr>
<tr>
<td>HEO 201</td>
<td>6</td>
</tr>
<tr>
<td>HEO 251</td>
<td>6</td>
</tr>
<tr>
<td>HEO 125</td>
<td>3</td>
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<td>HEO 225</td>
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<td>Total Technical Credits 29-32</td>
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<td></td>
<td>Total Credits 35-38</td>
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</tbody>
</table>

Other Courses

HEO 151 Heavy Equipment Operating I

HEO 115 Hydraulic Excavator Operator

DIT 103 Preventive Maintenance Lab

HCO 125 Special Problems I

HCO 125 Special Problems I

Total Credits 18
Historic Preservation Technology

The program will focus on the study of preservation theory coupled with hands-on skill training to meet the needs of entry level individuals and prospective employers involved in the historic preservation field. Researching the background of structures designated as historic properties will enhance the learning experience while applying the Secretary of the Interior’s standards for the rehabilitation of historic structures.

Certificates

Historic Preservation Technology – 3012013019

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
<td>3</td>
</tr>
<tr>
<td>ACH 120</td>
<td>Theory and History of Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 240</td>
<td>History of Kentucky</td>
<td>3</td>
</tr>
<tr>
<td>HPT 100</td>
<td>Introduction to Historic Preservation</td>
<td>3</td>
</tr>
<tr>
<td>HPT 101</td>
<td>Introduction to Historic Preservation Lab</td>
<td>2</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety OR</td>
<td>3</td>
</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>(3)</td>
</tr>
<tr>
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</table>

*Technical Electives: Select a minimum of 8 credit hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPT 120</td>
<td>Traditional Woodworking</td>
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</tr>
<tr>
<td>HPT 200</td>
<td>Masonry Repointing and Repair</td>
<td>2</td>
</tr>
<tr>
<td>HPT 202</td>
<td>Window Restoration and Repair</td>
<td>2</td>
</tr>
<tr>
<td>HPT 204</td>
<td>Roof Restoration and Repair</td>
<td>2</td>
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<tr>
<td>HPT 298</td>
<td>Field Experience Practicum</td>
<td>2</td>
</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>(3)</td>
</tr>
<tr>
<td>Total</td>
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<td>8</td>
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</tbody>
</table>

*Technical Electives*

Homeland Security/Emergency Management

The degree program includes an overview of homeland security, emergency management and first responder agencies, including but not limited to: Fire Departments, Law Enforcement, and Medical Services and how these agencies function within the National Incident Management System.

Fire Science Track:

This degree track includes fire department organization, fire behavior, firefighter safety, personal protective equipment, portable fire extinguishers, fire hose, appliance and streams.

Criminal Justice Track:

This criminal justice degree track prepares the student for entry into the field of police work and related occupations. Criminal justice vocations have evolved from jobs with minimal requirements to jobs requiring complex knowledge and skills. This curriculum gives the student theory, principles, and techniques employed by criminal justice agencies and police units. The study of the law as it relates to criminal justice agencies, human behavior, government, and communications along with specialized course work comprise the curriculum.

Security Management Track:

The Security Management Coordinator degree track provides a comprehensive overview of physical security policies, procedures and techniques. Topics covered are perimeter protection, intrusion detection, access control, CCTV, security design and surveys, contingency planning, and acts of violence.

Homeland Security/Emergency Management Specialist Certificate:

This certificate program includes an overview of homeland security, emergency management and first responder agencies, including but not limited to: fire departments, law enforcement and emergency medical services and how these agencies function within the National Incident Management System.

Progression in the program is contingent upon achievement of a grade of “C” or better in each technical course for all program tracks above.

Academic Curricula

Homeland Security/Emergency Management - 4399997019

<table>
<thead>
<tr>
<th>General Education Core</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Written Communication</td>
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<tr>
<td>Quantitative Reasoning</td>
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<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
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<tr>
<td>Oral Communications</td>
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<td>Total General Education Core Credit Hour Subtotal</td>
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Technical Core or Support Courses

<table>
<thead>
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<tbody>
<tr>
<td>HSM 100</td>
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<tr>
<td>HSM 110</td>
<td>Introduction to Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 110</td>
<td>Principles of Asset Protection AND</td>
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<tr>
<td>CRJ 210</td>
<td>Physical Security Technology &amp; Systems OR</td>
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<tr>
<td>LSI 120</td>
<td>Comprehensive Security Specialist AND</td>
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<tr>
<td>LSI 146</td>
<td>Crisis Management/Contingency Planning</td>
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</tr>
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<td>HSM 225</td>
<td>Issues and Ethics in Homeland Security</td>
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<tr>
<td>AHS 140</td>
<td>Introduction to Public and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>FRS 101</td>
<td>Introduction to Fire Science</td>
<td>3</td>
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<tr>
<td>FRS 2061</td>
<td>Emergency Medical Technician</td>
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<td>Total Technical Core Subtotal</td>
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Fire Science Track Total Degree Requirements 63-66

Criminal Justice Track - 439999701

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>CRJ 100</td>
<td>Introduction to Criminal Justice</td>
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<tr>
<td>CRJ 204</td>
<td>Criminal Investigations</td>
<td>3</td>
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<td>CRJ 215</td>
<td>Criminal Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 217</td>
<td>Terrorism and Political Violence</td>
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<td>CRJ 279</td>
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<td>Total Crime Justice Track Subtotal</td>
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Criminal Justice Track Subtotal | 15 |

Criminal Justice Track Total Degree Requirements | 63-66 |

Security Management Track - 439999703

<table>
<thead>
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<th>Course</th>
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<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>LSI 140</td>
<td>Managing Terrorism &amp; Other Crises</td>
<td>1</td>
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<tr>
<td>LSI 150</td>
<td>Professional Locksmithing</td>
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<tr>
<td>Electives</td>
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<td>10</td>
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</table>

Total Security Management Track Degree Requirements | 63-66 |
A minimum of 3 credit hours must be taken from this list of electives:

- LSI 130 GSA: Locks, Vaults & Containers ...................................... 4
- LSI 131 GSA: Locks, Vaults & Containers Certified Inspector Training ................................................................. 1
- LSI 151 Basic Safe Penetration .................................................. 1
- LSI 152 Combination Lock Manipulation .................................. 1
- LSI 153 Safe Lock Servicing – Mechanical and Electronic ........... 2
- LSI 160 Fundamentals of Electricity .......................................... 2
- LSI 170 Electronic Access Control ............................................. 2
- LSI 195 Tactical Lock (restricted enrollment) ............................ 8

Security Management Track Subtotal 15

Total Degree Requirements 63-66

Certificate

Homeland Security/Emergency Management Specialist - 439993019
(Offered at JFC, WKC)

- HSM 100 Introduction to Homeland Security .......................... 3
- HSM 110 Introduction to Emergency Management .................... 3
- CRJ 110 Principles of Asset Protection OR ............................ 3
- CRJ 210 Physical Security Technology & Systems OR ............... 3
- LSI 120 Comprehensive Security Specialist ........................... (4)
- LSI 146 Crisis Management/Contingency Planning ................... (2)
- HSM 225 Issues and Ethics in Homeland Security .................. 3
- AHS 140 Introduction to Public and Community Health ........... 3
- BAS 212 Introduction to Financial Management ..................... 3
- FRS 101 Introduction to Fire Science ....................................... 3
- FRS 2061 Emergency Medical Technician ................................ 6

HSEM Specialist Certificate 30

Horticulture

The Horticulture program provides students with knowledge and skills needed for careers in greenhouse, nursery, and landscape operations. Students acquire practical experience in turf and landscape maintenance, design, plant production, and business management.

Associate in Applied Science

Horticulture - 0106017019

General Education:

- Quantitative Reasoning ....................................................... 3
- Natural Sciences ............................................................... 3
- Heritage/Humanities ....................................................... 3
- Social/Behavioral Sciences ............................................. 3
- Written Communication ................................................. 3

Subtotal 15

Technical Core:

- Computer/Digital Literacy * .............................................. 0-3
- HRT 110 Nursery Management ........................................... 4
- HRT 120 Turf Management OR .......................................... 4
- HRT 160 Retail Floral Design AND .................................... (4)
- HRT 161 Retail Floral Design Lab ..................................... (2)
- HRT 130 Landscape Maintenance ...................................... 3
- HRT 131 Landscape Maintenance Lab .................................. 2
- HRT 150 Horticulture Business Management .......................... 3
- HRT 210 Landscape Design ............................................... 4
- HRT 240 Greenhouse Management .................................... 4
- HRT 241 Greenhouse Management Lab ................................ 2

Subtotal 26-31

* Must meet computer/digital literacy requirement.

Science Track - 0106017001

- COE 199 Cooperative Education OR ..................................... 2
- COED 198 Practicum ........................................................... 2
- HRT 104 Introduction to Herbaceous Plants .......................... 4
- HRT 108 Introduction to Woody Plants .................................. 4
- Electives (Horticulture Course List including COE198) ........... 8

Subtotal 22

Total Science Track Credits 63-68

Business Track - 0106017002

- COE 199 Cooperative Education OR ..................................... 2
- COED 198 Practicum ........................................................... 2
- ACT 101 Fundamentals of Accounting I .................................. 3
- BAS 200 Small Business Management ................................... 3
- BMO 170 Introduction to Business Management ..................... 3
- OST 215 Office Procedures ................................................ 3
- Electives (Horticulture Course List including COE198) ........... 3

Subtotal 20

Total Business Track Credits 61-66

Diploma

Landscape Technology - 0106014009

General Education:

Area 1= Written Communication, Oral Communications, or Heritage/Humanities ..................................................... 3
Area 2= Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ...................................................... 3

Subtotal 6

Technical:

- Computer/Digital Literacy* .............................................. 3
- COE 199 Cooperative Education OR ..................................... 6
- COED 198 Practicum ........................................................... 6
- HRT 104 Introduction to Herbaceous Plants .......................... 4
- HRT 108 Introduction to Woody Plants .................................. 4
- HRT 120 Turf Management OR .......................................... 4
- HRT 160 Retail Floral Design AND .................................... (4)
- HRT 161 Retail Floral Design Lab ..................................... (2)
- HRT 130 Landscape Maintenance ...................................... 3
- HRT 131 Landscape Maintenance Lab .................................. 2
- HRT 210 Landscape Design ............................................... 4

Subtotal 30-32

Total 36-38

* If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.

Ornamental Horticulture - 0106014029

(Offered at MYC)

General Education:

Area 1= Written Communication, Oral Communications, or Heritage/Humanities ..................................................... 3
Area 2= Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ...................................................... 3

Subtotal 6

* If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.
Technical:

- HRT 210 Landscape Design
- HRT 130 Landscape Maintenance
- HRT 108 Introduction to Woody Plants
- HRT 110 Nursery Management
- HRT 120 Turf Management OR
- HRT 160 Retail Floral Design AND
- HRT 161 Retail Floral Design Lab
- HRT 130 Landscape Maintenance
- HRT 150 Horticulture Business Management
- HRT 210 Landscape Design
- HRT 240 Greenhouse Management
- HRT 241 Greenhouse Management Lab
- COED 198 Practicum

Subtotal: 48-50

Total: 54-56

Certificates

- Greenhouse Operations - 0106013029
  (Offered at MYC)
  - HRT 240 Greenhouse Management
  - HRT 241 Greenhouse Management Lab
  - Electives (Horticulture Course List)
  Total Credits: 12

- Greenhouse Production – 010613019
  (Offered at MYC)
  - HRT 104 Introduction to Herbaceous Plants
  - HRT 240 Greenhouse Management
  - HRT 241 Greenhouse Management Lab
  - Electives (Horticulture Course List including COE198)
  Total Credits: 18

- Horticulture Sales - 0106013119
  (Offered at MYC)
  - HRT 108 Introduction to Woody Plants OR
  - HRT 104 Introduction to Herbaceous Plants
  - HRT 120 Turf Management OR
  - HRT 160 Retail Floral Design AND
  - HRT 161 Retail Floral Design Lab
  - HRT 130 Landscape Maintenance
  - HRT 150 Horticulture Business Management
  - Electives (Horticulture Course List)
  Total Credits: 15-18

- Landscape Installation - 0106013049
  (Offered at MYC)
  - HRT 108 Introduction to Woody Plants OR
  - HRT 104 Introduction to Herbaceous Plants
  - HRT 130 Landscape Maintenance
  - HRT 131 Landscape Maintenance Lab
  - Electives (Horticulture Course List)
  Total Credits: 12

- Landscape Planning - 0106013059
  (Offered at MYC)
  - HRT 104 Introduction to Herbaceous Plants
  - HRT 108 Introduction to Woody Plants
  - HRT 130 Landscape Maintenance
  - HRT 131 Landscape Maintenance Lab
  - HRT 210 Landscape Design
  - Electives (Horticulture Course List)
  Total Credits: 22

Human Services

This program prepares individuals for entry level positions in agencies and institutions which provide social, community, educational, and mental health services. The curriculum provides an opportunity for the student to develop the knowledge and skills necessary for entry level employment. Included in the curriculum is a core of human services courses, general education courses, and technical courses with a specific human services emphasis. Application of human services principles and skills is provided through a clinical experience in an appropriate setting.

Upon completion of the program the graduate is prepared to seek employment in various areas which may include child care facilities, mental health settings, chemical dependency settings, hospitals, educational institutions, correctional facilities, geriatric settings, child and youth centers, and social service agencies.

Students obtain a “C” or better in all core classes (HMS 101, HMS 102, HMS 103, HMS 104 and (HMS 249 OR HMS250) and also in the two technical courses that have been selected to complete the core requirements.

Associate in Applied Science

Human Services- 4400007000

(Offered at BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, OWC)

General Education:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>COM 181</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal</td>
<td>(3)</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
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<tr>
<td>PSS 223</td>
<td>Developmental Psychology</td>
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<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>HUM 101</td>
<td>Heritage/Humanities course</td>
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<tr>
<td>QNT 101</td>
<td>Quantitative Reasoning course</td>
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<td>NAT 101</td>
<td>Natural Sciences</td>
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Subtotal: 30
Technical Core:

CTT 105 Introduction to Computers OR
     Approved Digital Literacy Course .................. 3

HMS 101 Human Services Survey ....................... 3

HMS 102 Values of Human Services in a Contemporary Society .... 3

HMS 103 Theories and Techniques in Human Services .......... 3

HMS 104 Group Dynamics for Human Services ................ 3

HMS 249 Foundational Skills in Para-Professional Practice OR 4

HMS 250 Clinical Practice in Human Services OR ........... 4

COE 199 Cooperative Education ....................... (4)

Technical courses .................................. 9

Electives ............................................. 6

Subtotal ............................................... 34

Total Credits ....................................... 64

Technical Courses: Choose six hours 

CRJ 101 Introduction to Criminal Justice ................ 3

CRJ 208 Delinquency and the Juvenile Justice System ......... 3

EDP 203 Teaching Exceptional Learners in Regular Classrooms 3

FAM 252 Introduction to Family Science .................. 3

FAM 253 Human Sexuality: Development, Behavior and Attitudes 3

HMS 210 Drugs, Society, and Human Behavior .............. 3

IB/SW 200 Dynamics of Human Behavior .................. 3

IB/SW 211/255 Introduction to Addictions ................. 3

IB/SW 212/260 Crisis Intervention ....................... 3

IB/SW 220 Cultural Diversity in Human Services .......... 3

IB/SW 235/250 Teaching Persons with Mental Retardation .... 3

HMS 245 Psychiatric Mental Health Technician ............ 3

HMS 265 Working with Disabilities in Human Services .... 3

HMS 299 Special Topics in Human Services ................ 1-3

IEC 130 Early Childhood Development .................... 3

IEC 200 Child Guidance ................................ 3

MNA 100 Medicaid Nurse Aide OR ...................... 3

NAA 100 Nursing Assistant Skills I ........................ (3)

PSY 180 Human Relations ................................ 3

PSY 185 Human Potential ................................ 3

PSY 230 Psychosocial Aspects of Death and Dying ........ 3

SED 110 Orientation to Interpreting for the Deaf .......... 3

SED 101 American Sign Language I ...................... 3

SED 102 American Sign Language II ..................... 3

SOC 220 The Community ................................ 3

SWK 124 Introduction to Social Services ................. 3

SWK 222 Development of Social Welfare ................ 3

SWK 180 Introduction to Gerontology ................... 3

SWK 269 Juvenile Delinquency ........................... 3

SWK 270 Corrections ................................... 3

SWK 275 The Family .................................... 3

SWK 276 Criminology .................................. 3

SWK 280 Methods of Working with the Aged ............... 3

SWK 281 Psychology of Aging .......................... 3

Murray State University Courses:

SWK 120 Group Preparation and Selection for Foster and Adoptive Parents .......... 2

SWK 121 Child Sexual Abuse for Foster and Adoptive Parents ............. 2

Eastern Kentucky University Courses:

COR 106 Foundations of Youth Work ................... 3

COR 423* Reclaiming Our Prodigal Sons and Daughters ....... 3

COR 423* Life Space Crisis Intervention .................. 3

* Special Topics course at EKU; different section numbers indicate different topic content

Eastern Kentucky University Courses:

SWK 106 Food Benefits .................................. 3

Certificates

Direct Support Work - 4400003039

(Offered at BLC, ELC, GTW, HPC, HZC, JFC, OWC, MDC)

Available Completely Online

HMS 102 Values of Human Services in a Contemporary Society .... 3

HMS 265 Working with Disabilities in Human Services ............ 3

MNA 100 Medicaid Nurse Aide OR .................................. 3

NAA 100 Nursing Assistant Skills I ................................ (3)

SWK 275 The Family OR ............................................. (3)

FAM 252 Introduction of Family Science ........................ 3

Electives – choose one course from the following list:

IB/SW 235/250 Teaching Persons with Mental Retardation ....... 3

SWK 180 Introduction to Gerontology .......................... (3)

PSY 230 Psychosocial Aspects of Death and Dying ............... (3)

IB/SW 200 Dynamics of Human Behavior ..................... (3)

Total Credits ....................................... 15

Aging Services – 4400003049

(Offered at BLC, ELC, GTW, HPC, HZC, MDC, OWC)

HMS 102 Values of Human Services in a Contemporary Society .... 3

HMS 265 Working with Disabilities in Human Services ............ 3

MNA 100 Medicaid Nurse Aide OR .................................. 3

NAA 100 Nursing Assistant Skills I ................................ (3)

SWK 275 The Family OR ............................................. (3)

FAM 252 Introduction of Family Science ........................ 3

SWK 180 Introduction to Gerontology .......................... (3)

SWK 281 Psychology of Aging .................................... 3

Total Credits ....................................... 18

Substance Abuse Recovery Coach – 4400003059

(Offered at BLC, ELC, GTW, HPC, HZC, MDC, OWC)

HMS 101 Human Services Survey ............................. 3

HMS 102 Values of Human Services in a Contemporary Society .... 3

HMS 103 Theories and Techniques in Human Services ............ 3

HMS 104 Group Dynamics ....................................... 3

HMS 210 Drugs, Society and Human Behavior .................. 3

IB/SW 211/255 Introduction to Addictions ................. 3

IB/SW 212/260 Crisis Intervention ......................... 3

SWK 275 The Family OR ............................................. (3)

FAM 252 Introduction of Family Science ........................ (3)

Total Credits ....................................... 24

Psychiatric Mental Health Technician – 4400003069

(Offered at BLC, ELC, GTW, HPC, HZC, MDC)

HMS 101 Human Services Survey ............................. 3

HMS 102 Values of Human Services in a Contemporary Society .... 3

HMS 103 Theories and Techniques in Human Services ............ 3

HMS 104 Group Dynamics ....................................... 3

HMS 210 Drugs, Society and Human Behavior .................. 3

SWK 275 The Family ............................................. 3

MNA 100 Medicaid Nurse Aide OR .................................. 3

NAA 100 Nursing Assistant Skills I ................................ (3)

HMS 245 Psychiatric Mental Health Technician ............... 3

Psychiatric Mental Health Technician from approved list ........ 3

Total Credits ....................................... 27

Technical Electives:

IB/SW 211/255 Introduction to Addictions ................. 3

IB/SW 212/260 Crisis Intervention ......................... 3

IB/SW 220 Cultural Diversity in Human Services ............. 3

HMS 265 Working with Disabilities in Human Services ............ 3

SWK 180 Introduction to Gerontology ....................... 3

SWK 276 Criminology ......................................... 3

SWK 281 Psychology of Aging .................................. 3

Total Credits ....................................... 3
### Industrial Chemical Technology

This program is designed based on North American Process Technician Alliance (NAPTA) principles for process technicians. Basic knowledge in the areas of environmental health and safety, quality control, chemistry, process equipment, process operations, troubleshooting, and workplace skills helps ensure graduates enter the workforce with the fundamentals in operations of a modern chemical facility.

#### Associate in Applied Science

**Industrial Chemical Technology - 4103017019**

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<thead>
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<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHE 145</td>
<td>Introductory General Chemistry Lab</td>
<td>1</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>AET 110</td>
<td>Introduction to Circuit Analysis</td>
<td>4</td>
</tr>
<tr>
<td>ICT 186</td>
<td>Process Technology Equipment</td>
<td>3</td>
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<tr>
<td>ICT 194</td>
<td>Process Technology Systems</td>
<td>4</td>
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<tr>
<td>ICT 196</td>
<td>Process Technology Operations</td>
<td>3</td>
</tr>
<tr>
<td>ICT 200</td>
<td>Process Troubleshooting</td>
<td>4</td>
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<tr>
<td>ICT 230</td>
<td>Health, Safety, &amp; Environmental Practices OR</td>
<td>3</td>
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<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
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<td>ICT 280</td>
<td>Capstone in Industrial Chemical Technology</td>
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<tr>
<td>ITE 250</td>
<td>Team Dynamics and Problem Solving</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>PHY 171</td>
<td>Applied Physics OR</td>
<td>4</td>
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<tr>
<td>PHY 152</td>
<td>Introductory Physics II AND</td>
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<td>PHY 162</td>
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<td>ELT 295</td>
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<td>COE 199</td>
<td>Co-operative Education</td>
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</tbody>
</table>

**Total**: 61-67

### Information Management and Design

The Information Management & Design program prepares students for careers in various industries utilizing cutting-edge technology within video game design, graphic design, web design, and library professions. Students will specialize their degree from a choice of four tracks.

#### Core Content:

- **IMD 100** Digital Information and Communications Technologies .................................. 3
- **IMD 133** Beginning Web Design .................................................................................. 3
- **IMD 126** Introduction to Desktop Publishing .............................................................. 3
- **IMD 210** Microsoft Office Applications .................................................................... 3
- **IMD 270** Professional Practices .................................................................................. 3
- **IMD 275** Information Management & Communications .............................................. 3
- **COE 199** Coop Education OR ...................................................................................... 3
- **IMD 271** Internship ...................................................................................................... 3

**Subtotal**: 18

### Graphic Design Track - 110801702

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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<tbody>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
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<tr>
<td>IMD 127</td>
<td>Vector Design with Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 180</td>
<td>Intermediate Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 226</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 280</td>
<td>Portfolio Practicum: Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 277</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>IMD 228</td>
<td>Advanced Photoshop OR</td>
<td>3</td>
</tr>
<tr>
<td>IMD 229</td>
<td>Advanced Illustrator</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Graphic Design Track Courses**

- **IMD 230** Advanced Web Design .................................................................................. 3
- **IMD 240** Multimedia Development for the Web ......................................................... 3
- **IMD 250** Digital Video Editing I ................................................................................ 3
- **IMD 290** Photography .................................................................................................. 3
- **IMD 228** Advanced Photoshop (if not taken as core requirement) OR ...................... 3
- **IMD 229** Advanced Illustrator (if not taken as core requirement) .......(3)
- **IMD 294** Seminar in Information Management & Design Technologies ...................... 3
- **IMD 299** Selected Topics in Information Management & Design Technologies ............ 3
- **MGT 282** Principles of Marketing ................................................................................ 3
ENG 203 Business Writing ................................................. 3  
Other Information Management & Design, Video Game Design, Computer & Information Technologies, Architectural, Business, Communication, Fine Arts or other track appropriate courses approved by Program Coordinator ........................................ 1-3  
Subtotal 27  
Total 66  

Library Information Technology Track - 110801704  
*(Offered at BLC)*  
Available Completely Online  
LIT 115 Introduction to Reference Services ........................................ 3  
LIT 124 Library Administration ......................................................... 3  
LIT 132 Library Technical Services ................................................... 3  
LIT 243 Library Services for Children OR ......................................... 3  
LIT 245 Library Services for Young Adults OR .................................. 3  
LIT 247 Library Services for Adults .................................................. 3  
LIT 299 Selected Topics in Library Information Management *(may be repeated for up to 6 hours)* .................. 1-3  
LIT 280 Genealogy Services in Libraries OR  
LIT 248 Library Services for Preschool Children OR  
LIT 247 Library Services for Adults OR  
LIT 243 Library Services for Children OR  
LIT 120 Readers' Advisory Services .................................................. 3  
LIT 243 Library Services for Children ** ......................................... 3  
LIT 245 Library Services for Young Adults ** .................................. 3  
LIT 247 Library Services for Adults ** ............................................ 3  
LIT 285 History of Libraries ............................................................. 3  
LIN 175 Information Literacy ............................................................. 3  
LIT 299 Selected Topics in Library Information Management *(may be repeated for up to 6 hours)* .................. 1-3  
** Course can be used as LIT track course if not utilized as LIT track core course  
Subtotal 24  
Total 63  

Web Design Track- 110801703  
*(Offered at BLC)*  
IMD 128 Raster Design with Photoshop ............................................. 3  
IMD 180 Intermediate Web Design .................................................. 3  
IMD 230 Advanced Web Design ....................................................... 3  
IMD 240 Multimedia Development for the Web .................................. 3  
IMD 250 Digital Video Editing I ....................................................... 3  
IMD 292 Portfolio Practicum: Web Design ........................................ 3  
Web Design Track Courses ................................................................. 6  
Choose from Web Design Track Courses:  
IMD 115 Introduction to Graphic Design .......................................... 3  
IMD 127 Vector Design with Adobe Illustrator .................................. 3  
IMD 290 Photography ...................................................................... 3  
IMD 294 Seminar in Information Management & Design Technologies 3  
IMD 255 Digital Video Editing II ....................................................... 3  
IMD 258 Visual Effects for Video ....................................................... 3  
CIT 150 Internet Technologies ........................................................... 3  
CIT 120 Computational Thinking ........................................................ 3  
CIT 140 JavaScript I ......................................................................... 3  
Computer Programming Course Approved by Program Coordinator .......... 1-3  
Other Information Management & Design, Computer & Information Technologies, Architectural, Business, Communication, Fine Arts or other Track Appropriate Courses Approved by Program Coordinator .......... 1-3  
Subtotal 24  
Total 63  

Video Game Design Track- 110801705  
*(Offered at BLC)*  
IMD/CIT124 Introduction to Game Development .................................. 3  
IMD/CIT272 Game Design Theory ...................................................... 3  
IMD/CIT274 Seminar in Game Development ....................................... 3  
IMD/CIT221 Computer Graphics ....................................................... 3  
IMD/CIT222 3D Modeling for Video Games ....................................... 3  
IMD/CIT223 3D Animation for Video Games ...................................... 3  
IMD/CIT273 Game Production ............................................................. 3  
Video Game Design Track Course ..................................................... 3  
Choose from Video Game Design Track Courses:  
IMD 180 Intermediate Web Design with Photoshop ................................ 3  
IMD 240 Multimedia Development for the Web .................................. 3  
IMD 250 Digital Video Editing I ....................................................... 3  
IMD 290 Photography ...................................................................... 3  
IMD 127 Vector Design with Illustrator ............................................ 3  
IMD 228 Advanced Raster Design with Photoshop ................................ 3  
IMD 294 Seminar in Information Management and Design ................. 3  
IMD 299 Selected Topics in Information Management and Design .......... 3  
MGT 282 Principles of Marketing .......................................................... 3  
ENG 203 Business Writing ................................................................. 3  
Other Video Game Design Courses approved by Program Coordinator .......... 3  
Other Information Management & Design, Computer & Information Technologies, Architectural, Business, Communication, Fine Arts or other Track Appropriate Courses Approved by Program Coordinator .......... 3  
Subtotal 24  
Total 63  

Certificate  
Library Information Technology - 1108013019  
*(Offered at BLC)*  
The certificate in Library Information Technology prepares students for paraprofessional jobs in libraries. Upon completion of the academic certificate, students will be able to: perform basic library reference services using print and online sources, plan and produce library services and programs, demonstrate information literacy skills, describe the role of libraries as agencies for information services. Courses taken for the Certificate in Library Information Technology may be used for the Associate of Applied Science degree in Information Management and Design, Library Information Technology track and as electives for the AA/AS degrees. All Library Information Technology courses are web-based distance courses.  
Required:  
LIT 115 Introduction to Reference Services ........................................... 3  
LIN 175 Information Literacy ............................................................. 3  
Students will select one course from each of the following groups:  
1. Library Procedures  
LIT 124 Library Administration OR .................................................. 3  
LIT 132 Library Technical Services ................................................... 3  
2. Library Services  
LIT 120 Readers' Advisory Services OR ............................................ 3  
LIT 243 Library Services for Children OR ........................................... 3  
LIT 245 Library Services for Young Adults OR .................................... 3  
LIT 247 Library Services for Adults OR .............................................. 3  
LIT 248 Library Services for Preschool Children OR  
LIT 280 Genealogy Services in Libraries OR ........................................ 3  
3. Library Information Technology Elective  
LIT elective: any LIT course above LIT 115 ........................................... 3  
Total 15
The Custom Track provides flexibility for the dynamic nature of knowledge-based jobs and student career goals. Students may choose courses to complete their track requirements from technical courses within the Instructional Design and Learning Technology program or may choose a blend of courses from the Education, Visual Communication or Computer & Information Technologies program.

Documentation of digital literacy as defined by KCTCS is required prior to enrolling in the first Instructional Design and Learning Technology course.

### Associate in Applied Science

#### Instructional Design and Learning Technology - 1305017019

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<th>Course Title</th>
<th>Credit Hours</th>
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<tr>
<td>ENG 101</td>
<td>Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II*</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Math OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>(3)</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
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<tr>
<td>Natural Sciences</td>
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<td>3</td>
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<tr>
<td>Social/Behavioral Sciences</td>
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<tr>
<td>Heritage/Humanities</td>
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#### Instructional Design Track - 130501701

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<td>3</td>
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<tr>
<td>IDL 110</td>
<td>Instructional Design I</td>
<td>3</td>
</tr>
<tr>
<td>IDL 120</td>
<td>Facilitation Skills OR</td>
<td>3</td>
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<tr>
<td>IDL 123</td>
<td>Multimedia Design and Development</td>
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<tr>
<td>IDL 210</td>
<td>Instructional Design II</td>
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<td>IDL 220</td>
<td>Business Management for Instructional Design &amp; Learning Technology</td>
<td>3</td>
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<tr>
<td>IDL 240</td>
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<td>IDL 290</td>
<td>Experiential Learning in Instructional Design</td>
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<tr>
<td>IDL 299</td>
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#### Total Core Courses plus General Education - 48

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<th>Course Title</th>
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<tbody>
<tr>
<td>IDL 130</td>
<td>Technical Writing for Instructional Design</td>
<td>3</td>
</tr>
<tr>
<td>IDL 230</td>
<td>Evaluation of Instruction</td>
<td>3</td>
</tr>
<tr>
<td>IDL 250</td>
<td>Instructional Design III</td>
<td>3</td>
</tr>
<tr>
<td>IDL 260</td>
<td>Competency Models and Curriculum Design</td>
<td>3</td>
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</table>

#### Total Credit hours for Instructional Design Track - 60

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>IDL 147</td>
<td>eLearning Development I: Rapid Authoring Tools</td>
<td>3</td>
</tr>
<tr>
<td>IDL 207</td>
<td>eLearning Development II: HTML, CSS and JavaScript</td>
<td>3</td>
</tr>
<tr>
<td>IDL 217</td>
<td>Multimedia Development</td>
<td>3</td>
</tr>
<tr>
<td>IDL 227</td>
<td>eLearning Development III: Advanced Authoring Tools</td>
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#### Total Credit hours for eLearning Developer Track - 60

<table>
<thead>
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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>IDL 113</td>
<td>Introduction of Visual Communications for Learning</td>
<td>3</td>
</tr>
<tr>
<td>IDL 203</td>
<td>Designing in Client Applications</td>
<td>3</td>
</tr>
<tr>
<td>IDL 213</td>
<td>Designing in Graphic Applications</td>
<td>3</td>
</tr>
<tr>
<td>IDL 223</td>
<td>Design Application</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Custom Track – 130501704

- Must select 4 courses from above tracks, or select courses from Education, Visual Communication or Computer & Information Technologies programs.

**Total Credit hours for Custom Track** - 60

---

### Graphic Design – 1108013029

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 133</td>
<td>Beginning Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 126</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
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<tr>
<td>IMD 127</td>
<td>Vector Design with Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 226</td>
<td>Advanced Desktop Publishing</td>
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<tr>
<td><strong>Total</strong></td>
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### Web Design – 1108013039

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>IMD 128</td>
<td>Raster Design with Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250</td>
<td>Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>IMD 255</td>
<td>Digital Video Editing II</td>
<td>3</td>
</tr>
<tr>
<td>IMD 258</td>
<td>Visual Effects for Video</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
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### Digital Video – 1108013049

(Offered at BLC)

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250</td>
<td>Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>IMD 255</td>
<td>Digital Video Editing II</td>
<td>3</td>
</tr>
<tr>
<td>IMD 258</td>
<td>Visual Effects for Video</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td>12</td>
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</table>

### Instructional Design and Learning Technology

The Instructional Design and Learning Technology program is designed to provide individuals with the knowledge and skills required to be successful in an entry level instructional design position in any field. The core curriculum includes a general education component essential to a collegiate education and a technical component that provides an introduction to productivity software, instruction/curriculum/training design, facilitation skills, multimedia design and development, and human performance consulting. Program participants can select career tracks for their degree that align with their career goals and interests. Instructional Design, eLearning Developer, and Graphic Design for Instruction are available tracks for the program. Students may also choose to customize their track.

The Instructional Design track focuses on instructional systems design through the use of ADDIE model. This track emphasizes curriculum design and development, using Bloom’s Taxonomy of Learning Domains, to develop and evaluate models to support competency-based training.

The eLearning Developer track focuses on the use of eLearning development and rapid authoring tools in creating engaging web-based learning/training activities. This track emphasizes SCORM compliance for eLearning, the use of programming languages for web-development, and audio/video production in the development of eLearning courses and learning activities.

The Graphic Design for Instruction track focuses on the graphic design of communications and instructional content. This track emphasizes the design of education and training materials through the use of client software applications and other graphic and animation tools for documents, presentations, and mobile devices. Students in this track will also be required to complete a project to apply their accumulated knowledge of design software and fundamental principles through real-life scenarios.
### Certificates

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
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</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>IDL 101</td>
<td>Instructional Design and Learning Tech</td>
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</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>3</td>
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<td>IDL 110</td>
<td>Instructional Design I</td>
<td>3</td>
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<td>IDL 123</td>
<td>Multimedia Design and Development</td>
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<tr>
<td>ID 210</td>
<td>Instructional Design II</td>
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### Advanced Instructional Design - 1305013049

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<th>Course Title</th>
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<tbody>
<tr>
<td>IDL 130</td>
<td>Technical Writing for Instructional Design</td>
<td>3</td>
</tr>
<tr>
<td>IDL 220</td>
<td>Business and Management for Instructional Design</td>
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</tr>
<tr>
<td>IDL 230</td>
<td>Evaluation of Instruction</td>
<td>3</td>
</tr>
<tr>
<td>IDL 240</td>
<td>Human Performance Consulting</td>
<td>3</td>
</tr>
<tr>
<td>IDL 250</td>
<td>Instructional Design III</td>
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</tr>
<tr>
<td>IDL 260</td>
<td>Competency Models and Curriculum Design</td>
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### Instructional Facilitation - 1305013039

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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>IDL 147</td>
<td>eLearning Development I: Rapid Authoring Tools</td>
<td>3</td>
</tr>
<tr>
<td>IDL 207</td>
<td>eLearning Development II: HTML, CSS, and Java Script</td>
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</tr>
<tr>
<td>IDL 217</td>
<td>Multimedia Development</td>
<td>3</td>
</tr>
<tr>
<td>IDL 227</td>
<td>eLearning Development III: Advanced Authoring Tools</td>
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### eLearning Developer - 1305013019

<table>
<thead>
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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
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</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>IDL 101</td>
<td>Instructional Design and Learning Tech</td>
<td>3</td>
</tr>
<tr>
<td>IDL 110</td>
<td>Instructional Design I</td>
<td>3</td>
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<tr>
<td>IDL 120</td>
<td>Facilitation Skills</td>
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### Graphic Design of Instruction - 1305013059

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<tr>
<td>ENG 101</td>
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<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>IDL 113</td>
<td>Introduction of Visual Communications for Learning</td>
<td>3</td>
</tr>
<tr>
<td>IDL 123</td>
<td>Multimedia Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>IDL 203</td>
<td>Designing in Client Applications</td>
<td>3</td>
</tr>
<tr>
<td>IDL 213</td>
<td>Designing in Graphic Applications</td>
<td>3</td>
</tr>
<tr>
<td>IDL 223</td>
<td>Design Application</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
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</tbody>
</table>

### Insurance Risk Management

The Certificate program in Insurance and Risk Management is a four-course (12 credit hour) credential. Students will learn the foundations of insurance production and multiple lines insurance production. Students will also master the fundamentals of operating an agency and managing sales. Completers of this certificate program will be eligible to sit for the national Accredited Advisor in Insurance (AAI) Certification exam.

### Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>INS 100</td>
<td>Introduction to Insurance and Risk Management</td>
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<tr>
<td>INS 181</td>
<td>Foundations of Insurance Production</td>
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<tr>
<td>INS 182</td>
<td>Multiple Lines Insurance Production</td>
<td>3</td>
</tr>
<tr>
<td>INS 183</td>
<td>Agency Operations and Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
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</tbody>
</table>

### Integrated Engineering Technology

The Integrated Engineering Technology Program offers students the opportunity to build a career maintaining integrated manufacturing systems found in advanced manufacturing, with an emphasis on automotive manufacturing. The program leads students through a mechatronics approach to maintaining and troubleshooting highly-automated, complex manufacturing systems that include programmable logic controllers, robots, various types of drives, sensors, photoeyes, and electrohydraulics and electropneumatics. Graduates will be able to work as maintenance technicians in most manufacturing settings, particularly manufacturing settings related to the automotive industry.

### Associate in Applied Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
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<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR</td>
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<tr>
<td>ENG 102</td>
<td>Preventive Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>IET 104</td>
<td>Blueprint Reading/Schematics</td>
<td>2</td>
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<tr>
<td>IET 107</td>
<td>Basic Electricity/Electronics</td>
<td>3</td>
</tr>
<tr>
<td>IET 108</td>
<td>Mechanical Drive Systems</td>
<td>5</td>
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<tr>
<td>IET 109</td>
<td>Safety</td>
<td>3</td>
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<tr>
<td>IET 110</td>
<td>Welding and Fabrication</td>
<td>4</td>
</tr>
<tr>
<td>IET 120</td>
<td>Machine Tool Operations</td>
<td>4</td>
</tr>
<tr>
<td>IET 201</td>
<td>Electrohydraulics/Pneumatics</td>
<td>6</td>
</tr>
<tr>
<td>IET 203</td>
<td>Programmable Logic Controllers</td>
<td>5</td>
</tr>
<tr>
<td>IET 205</td>
<td>Robot Maintenance</td>
<td>4</td>
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<tr>
<td>IET 206</td>
<td>Controls and Instrumentation</td>
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<tr>
<td>Total Credits</td>
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**Total Credits 64**
# Interdisciplinary Early Childhood Education

The Interdisciplinary Early Childhood Education Program is designed to provide students an understanding of the cognitive, physical, social and emotional development for working with young children. Opportunities to apply this knowledge in practical experiences are incorporated in the curriculum. Curriculum topics include, but are not limited to, developmental ages and stages, health and safety, curriculum planning, assessment and family involvement. Employment opportunities are available in public and private preschools, early care educational settings, early intervention programs, Head Start, hospitals, campus child development centers, rehabilitation clinics and recreation centers.

Students must earn a “C” or higher in each of the IEC courses in order to graduate.

## Associate in Applied Science
### Interdisciplinary Early Childhood Education - 1907097019

(Offered at ASC, BLC, ELC GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101</td>
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<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
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</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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<tr>
<td>IEC 101</td>
<td>Orientation to Early Childhood Education</td>
<td>3</td>
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<tr>
<td>IEC 102</td>
<td>Foundations of Early Childhood Education</td>
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<tr>
<td>IEC 120</td>
<td>Health, Safety &amp; Nutrition OR</td>
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<td>KHP 230</td>
<td>Human Health &amp; Wellness OR</td>
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<td>NFS 101</td>
<td>Human Nutrition and Wellness</td>
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<td>IEC 130</td>
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<tr>
<td>IEC 170</td>
<td>Observation &amp; Assessment OR</td>
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<td>IEC 190</td>
<td>Applied Experiences in Early Childhood Education</td>
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<td>IEC 180</td>
<td>Approaches to Early Childhood Education Curriculum</td>
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<td>IEC 200</td>
<td>Child Guidance</td>
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<td>IEC 221</td>
<td>Creative Expressions in IECE</td>
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<td>Sciences and Mathematics for IECE</td>
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<td>IEC 260</td>
<td>Infant and Toddler Education and Programming</td>
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<td>IEC 291</td>
<td>IECE Practicum/Cooperative Education</td>
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**Total Credits** 21-22

### Technical Core Courses

- Computer/Digital literacy must be demonstrated by competency exam or by completing a computer/digital literacy course

#### Choose one course from the following approved technical support elective courses:

- IEC 210 Families & Communities in Early Childhood Education 3
- IEC 240 Administration of Early Childhood Education 3
- IEC 250 School Age Child Care 3

**Total Credits** 63-67

---

# Diploma

## Integrated Engineering Technology – 1442014019

(Offered at BLC)

### Area 1
- Written/Oral Communications, or Heritage/Humanities (3)

### Area 2
- MAT 126 Technical Algebra and Trigonometry OR (3)
- Higher Level Quantitative Reasoning Course (3)

**Subtotal** 6

### Technical Courses:

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IET 102</td>
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<td>Blueprint Reading/Schematics</td>
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<tr>
<td>IET 107</td>
<td>Basic Electricity/Electronics</td>
<td>3</td>
</tr>
<tr>
<td>IET 108</td>
<td>Mechanical Drive Systems</td>
<td>5</td>
</tr>
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<td>IET 109</td>
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<tr>
<td>IET 110</td>
<td>Welding and Fabrication</td>
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<td>IET 120</td>
<td>Machine Tool Operations</td>
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<td>IET 201</td>
<td>Electrohydraulics/Pneumatics</td>
<td>6</td>
</tr>
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<td>IET 203</td>
<td>Programmable Logic Controllers</td>
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<td>IET 205</td>
<td>Robot Maintenance</td>
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<tr>
<td>IET 206</td>
<td>Controls and Instrumentation</td>
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**Total Credits** 53

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## Certificate

### Electrical Engineering Technology – 1442013029

(Offered at BLC)

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<th>Course Title</th>
<th>Credits</th>
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<td>Basic Electricity/Electronics</td>
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<td>Programmable Logic Controllers</td>
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</tr>
<tr>
<td>IET 205</td>
<td>Robot Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>IET 206</td>
<td>Controls and Instrumentation</td>
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**Total Credits** 17

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### Mechanical Engineering Technology – 1442013019

(Offered at BLC)

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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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<td>IET 108</td>
<td>Mechanical Drive Systems</td>
<td>5</td>
</tr>
<tr>
<td>IET 201</td>
<td>Electrohydraulics/Pneumatics</td>
<td>6</td>
</tr>
<tr>
<td>IET 110</td>
<td>Welding and Fabrication</td>
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<tr>
<td>IET 120</td>
<td>Machine Tool Operations</td>
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</tbody>
</table>

**Total Credits** 21

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*Technical Courses: Computer/Digital literacy must be demonstrated by competency exam or by completing a computer/digital literacy course.*
**Diploma**

Interdisciplinary Early Childhood Education - 1907094019

(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SM, WKC)

**Area 1 =** Written Communication, Oral Communications, or Heritage/Humanities ............................................ 3

**Area 2 =** Social/Behavioral Sciences, or Quantitative Reasoning ....... 3

**Subtotal** 6

Computer/Digital Literacy course OR demonstrated competency .................................................. 0-3

IEC 101 Orientation to Early Childhood Education .................................................. 3

IEC 102 Foundations of Early Childhood Education .................................................. 3

IEC 120 Health, Safety, and Nutrition OR .................................................. 3

KHP 230 Human Health & Wellness OR .................................................. (3)

NFS 101 Human Nutrition and Wellness .................................................. (3)

IEC 130 Early Childhood Development .................................................. 3

IEC 200 Child Guidance .................................................. 3

IEC 180 Approaches to Early Childhood Education Curriculum .................................................. 3

IEC 170 Observation and Assessment OR .................................................. 3

IEC 190 Applied Experiences in Early Childhood Education .................................................. (3)

IEC 216 Literacy and Language in IEC .................................................. 3

IEC 221 Creative Expressions in IEC .................................................. 3

IEC 246 Sciences and Mathematics for IEC .................................................. 3

IEC 235 Introduction to Inclusive Education .................................................. 3

IEC 240 Administration of Early Childhood Education OR .................................................. 3

IEC 250 School Age Child Care OR .................................................. (3)

IEC 210 Families & Communities in Early Childhood Education .................................................. (3)

IEC 260 Infant and Toddler Education and Programming .................................................. 3

IEC 291 IEC Practicum/Cooperative Education .................................................. 3

**Subtotal** 42-45

**Total Credits** 42-45

**Certificate**

Interdisciplinary Early Childhood Education Technical Studies - 1907093019

(Offered at ASC, BLC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SM, WKC)

Required:

IEC 101 Orientation to Early Childhood Education .................................................. 3

IEC 102 Foundations of Early Childhood Education .................................................. 3

KHP 230 Human Health & Wellness OR .................................................. (3)

NFS 101 Human Nutrition and Wellness .................................................. (3)

IEC 130 Early Childhood Development .................................................. 3

IEC 200 Child Guidance .................................................. 3

IEC 180 Approaches to Early Childhood Education Curriculum .................................................. 3

IEC 170 Observation and Assessment OR .................................................. 3

IEC 190 Applied Experiences in Early Childhood Education .................................................. (3)

IEC 216 Literacy and Language in IEC .................................................. 3

IEC 221 Creative Expressions in IEC .................................................. 3

IEC 246 Sciences and Mathematics for IEC .................................................. 3

IEC 235 Introduction to Inclusive Education .................................................. 3

IEC 240 Administration of Early Childhood Education OR .................................................. 3

IEC 250 School Age Child Care OR .................................................. (3)

IEC 210 Families & Communities in Early Childhood Education .................................................. (3)

IEC 260 Infant and Toddler Education and Programming .................................................. 3

IEC 291 IEC Practicum/Cooperative Education .................................................. 3

**Total Credits** 42

Child Care Assistant - 1907093039

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SM, WKC)

Required:

IEC 101 Orientation to Early Childhood Education .................................................. 3

IEC 102 Foundations of Early Childhood Education .................................................. 3

Any IEC three (3) hour course with the exception of IEC 190, IEC 230, IEC 250, and IEC 291 .................................................. 3

**Total Credits** 9

Kentucky Child Care Provider - 1907093049

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SM, WKC)

Available Completely Online

**Required:**

IEC 101 Orientation to Early Childhood Education .................................................. 3

**Total Credits** 3

Early Childhood Administrator - 1907093059

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SM, WKC)

Option One: Course Work

**Required:**

IEC 101 Orientation to Early Childhood Education .................................................. 3

IEC 102 Foundations of Early Childhood Education .................................................. 3

IEC 240 Administration of Early Childhood Education .................................................. 3

BAS 200 Small Business Management OR .................................................. 3

IEC 230 Business Administration of ECE Programs .................................................. (3)

**Total Credits** 12

Option Two: With a current CDA Articulated credit for IEC 101 and IEC 102

**Required:**

IEC 240 Administration of Early Childhood Education .................................................. 3

BAS 200 Small Business Management OR .................................................. 3

IEC 230 Business Administration of ECE Programs .................................................. (3)

**Option Three: With Life Skills Portfolio to replace competencies for IEC 101 and IEC 102**

**Required:**

IEC 240 Administration of Early Childhood Education .................................................. 3

BAS 200 Small Business Management OR .................................................. 3

IEC 230 Business Administration of ECE Programs .................................................. (3)

**Total Credits** 15

Invasive Cardiology

The goal of the Invasive Cardiology Program is to provide a competency-based didactic course with a well-rounded clinical experience. The student will be exposed to and expected to acquire skills, attitudes, and habits that are common to professionals in the medical field. Graduates will be prepared for a professional career as an Invasive Cardiovascular Technologist.

Certificate

Invasive Cardiology – 5109153019

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DMS 105</td>
<td>Introduction to Cardiology</td>
<td>3</td>
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<tr>
<td>IVC 140</td>
<td>Invasive Cardiology I</td>
<td>16</td>
</tr>
<tr>
<td>IVC 150</td>
<td>Invasive Cardiology II</td>
<td>3</td>
</tr>
<tr>
<td>IVC 160</td>
<td>Invasive Cardiology Clinical Education I</td>
<td>6</td>
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<tr>
<td>IVC 165</td>
<td>Invasive Cardiology Clinical Education II</td>
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</table>

**Total Credits** 44
Logistics and Operations Management

The Logistics and Operations Management program is designed to teach students about the sourcing, procurement, conversion, and logistics concepts associated with the production and delivery of goods and services.

Associate in Applied Science

Logistics and Operations Management – 5202037019

(Offered at WKC)

General Education Courses

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics or Higher General Education</td>
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<tr>
<td></td>
<td>Quantitative Reasoning course</td>
<td>3</td>
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<td></td>
<td>Natural Sciences</td>
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<td></td>
<td>Social/Behavioral Sciences (Must be a different course)</td>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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Subtotal: 18

Technical or Support Courses

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<td>ACC 201</td>
<td>Financial Accounting</td>
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<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 256</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
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<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications OR</td>
<td>3</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
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<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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<tr>
<td>LOM 101</td>
<td>Transportation</td>
<td>3</td>
</tr>
<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 180</td>
<td>Project Management OR</td>
<td>3</td>
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<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
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<tr>
<td>LOM 202</td>
<td>Applied Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>ECO 01</td>
<td>Contemporary Economic Issues OR</td>
<td>3</td>
</tr>
<tr>
<td>ECO 150</td>
<td>Global Economic Issues OR</td>
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<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics OR</td>
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<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics OR</td>
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<tr>
<td></td>
<td>Digital Literacy*</td>
<td>0-3</td>
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<tr>
<td></td>
<td>Electives**</td>
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Subtotal: 43-48

Total Credits: 61-66

*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

** May include BAS, QMS, STA or Business and Industry approved courses.

Certificates

Logistics Management – 5202033019

(Offered at WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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<tr>
<td>LOM 101</td>
<td>Transportation</td>
<td>3</td>
</tr>
<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 15-18

Supply Chain Management – 5202033029

(Offered at MYC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BAS 289</td>
<td>Transportation</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Applied Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 101</td>
<td>Transportation</td>
<td></td>
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<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
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</tr>
<tr>
<td>LOM 202</td>
<td>Applied Supply Chain Management</td>
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</table>

Total Credits: 18

Logistics Technology – 5202033039

(Offered at MYC, WKC)

<table>
<thead>
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<tbody>
<tr>
<td>Digital Literacy*</td>
<td>0-3</td>
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</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
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<tr>
<td>LOM 101</td>
<td>Transportation</td>
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<tr>
<td>LOM 180</td>
<td>Project Management OR</td>
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<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
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Total Credits: 12-15

International Logistics – 5202033049

(Offered at MYC, WKC)

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BAS 256</td>
<td>International Business</td>
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<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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<td>LOM 101</td>
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</tr>
<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
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</tbody>
</table>

Total Credits: 15

*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

Manufacturing Engineering Technology

The Manufacturing Engineering Technology degree offers students the opportunity to build a career in advanced manufacturing. It is focused on producing graduates to work as engineering technicians and first-line supervisors in manufacturing firms. The degree provides a broad foundation across many facets of operations management and manufacturing technologies. Graduates will be able to lead projects across multiple disciplines in advanced manufacturing firms. They will possess an understanding of manufacturing operations and possess the interpersonal skills to lead work groups. They will be able to work in almost any manufacturing setting from discrete manufacturing to continuous flow and assembly line operations.

Associate in Applied Science

Manufacturing Engineering Technology - 1506137029

(Offered at GTW)

General Education

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<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td></td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
<td>MAT 155</td>
<td>Trigonometry</td>
<td>3</td>
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<tr>
<td>STA 220</td>
<td>Statistical Method OR</td>
<td>3</td>
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<tr>
<td>MAT 170</td>
<td>Brief Calculus with Applications</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology OR</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
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<td>Heritage /Humanities</td>
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Subtotal: 24

*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

** May include BAS, QMS, STA or Business and Industry approved courses.
### Core

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BAS 160</td>
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<td>3</td>
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<tr>
<td>COE 199</td>
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<tr>
<td>MFG 175</td>
<td>Lean Operations</td>
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<tr>
<td>ELT 110</td>
<td>Circuits I</td>
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<td>ELT 201</td>
<td>Statics and Strengths of Materials</td>
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<td>BAS 289</td>
<td>Operations Management OR</td>
<td>3</td>
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<tr>
<td>MFG 256</td>
<td>Production Management</td>
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<tr>
<td>MFG 135</td>
<td>Fundamentals of Mechatronics</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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**Subtotal:** 25-29

### Technical Electives

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<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
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<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership OR</td>
<td>3</td>
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<tr>
<td>BRX 112</td>
<td>Blueprint Reading for Machinists OR</td>
<td>4</td>
</tr>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>3</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>1-5</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals OR</td>
<td>4</td>
</tr>
<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>4</td>
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<tr>
<td>DFT 152</td>
<td>Intermediate Computer Aided Drafting</td>
<td>3</td>
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<tr>
<td>EET 154</td>
<td>Electrical Construction I</td>
<td>2</td>
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<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 264</td>
<td>Rotating Machinery</td>
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<tr>
<td>EET 265</td>
<td>Rotating Machinery Lab</td>
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<td>EET 270</td>
<td>Electrical Motor Controls I</td>
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<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
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<td>EET 272</td>
<td>Electrical Motor Controls II</td>
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<td>EET 276</td>
<td>Programmable Logic Controllers</td>
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<tr>
<td>ELT 114</td>
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<td>ELT 260</td>
<td>Robotics and Industrial Automation</td>
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<td>ETT 110</td>
<td>Voice &amp; Data Installer Level I</td>
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<td>FPX 100</td>
<td>Fluid Power</td>
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<td>Maintaining Industrial Equipment</td>
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<td>MFG 145</td>
<td>Manufacturing Processes OR</td>
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<tr>
<td>CMM 110</td>
<td>Fundamentals of Machine Tool –A</td>
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<td>CMM 112</td>
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<td>CMM 118</td>
<td>Metrology and Control Charts</td>
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<td>CMM 130</td>
<td>Manual Programming</td>
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<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC</td>
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<td>QMS 220</td>
<td>Quality Audits</td>
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<td>QMS 240</td>
<td>Statistics for Quality I (if ST291 is not taken in the core)</td>
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**Subtotal:** 12

**Total Credits:** 63-67

A minimum of fourteen (14) credit hours must be taken from the approved technical elective list. Other courses may be taken with the approval of the program coordinator.

### Certificates

#### Integrated Manufacturing Technologies - 1506133069

**Offered at GTW**

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<th>Course Name</th>
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<tbody>
<tr>
<td>FPX 100</td>
<td>Fluid Power</td>
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<td>FPX 101</td>
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<td>5</td>
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<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment</td>
<td>3</td>
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<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment Lab</td>
<td>2</td>
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<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I</td>
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<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
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**Total Credits:** 19

#### Quality Control - 1506133049

**Offered at GTW**

**General Education**

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<td>Basic Public Speaking OR</td>
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<td>Introduction to Interpersonal Communications</td>
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**Subtotal:** 6

#### Core

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<td>BRX 120</td>
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<td>Drafting Fundamentals OR</td>
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<td>CAD 112</td>
<td>Engineering Graphics</td>
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<td>CMM 118</td>
<td>Metrology and Control Charts</td>
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</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 220</td>
<td>Quality Audits</td>
<td>3</td>
</tr>
<tr>
<td>STA 220</td>
<td>Statistics OR</td>
<td>3</td>
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</table>

**Subtotal:** 15-16

**Total:** 21-22

#### Operations Management - 5202013369

**Offered at BSC, GTW**

**General Education**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
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</table>

**Subtotal:** 3

#### Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership OR</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MFG 256</td>
<td>Production Management</td>
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</tr>
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</table>

**Subtotal:** 9

**Total:** 12

#### Fundamentals of Mechatronics - 1500003219

**Offered at BSC**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 135</td>
<td>Fundamentals of Mechatronics OR</td>
<td>6</td>
</tr>
<tr>
<td>MFG 125</td>
<td>Special Topics in Engineering Technology:</td>
<td>3</td>
</tr>
<tr>
<td>MFG 130</td>
<td>Fundamentals of Mechatronics – AND</td>
<td>3</td>
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**Total:** 6

#### Enhanced Operator – 1506133119

**Offered at**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPP 2001</td>
<td>Soft Skills</td>
<td>1</td>
</tr>
<tr>
<td>ISX 1001</td>
<td>Safety &amp; Universal Precaution</td>
<td>1</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>CMM 118</td>
<td>Metrology &amp; Control Charts</td>
<td>2</td>
</tr>
<tr>
<td>MFG 175</td>
<td>Lean Operations</td>
<td>2</td>
</tr>
<tr>
<td>ECT 1206</td>
<td>Hand &amp; Power Tools</td>
<td>2</td>
</tr>
<tr>
<td>QMS 299</td>
<td>Selected Topics in Quality Management Systems:</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total:** 14
Manufacturing Industrial Technology

Two programs are offered under the broader heading of MIT. They are Electrical Technology and Industrial Maintenance Technology.

MIT: Electrical Technology

The Electrical Technology Program focuses on preparing students for various entry-level electrical positions in industry and the building trades. The study of electrical theory in the classroom and the practical application of that theory in labs provide the foundation of this program. This program is versatile in offering three different tracks within the Associate of Applied Science degree. A variety of certificates and diplomas serve as pathways to the AAS degree tracks or as meeting specific training needs.

Students enrolled in the Electrical Technology program are required to achieve a minimum grade of “C” in the technical core and in those courses selected as technical electives.

Associate in Applied Science

Electrical Technology - 4603027039

(Offered at BSC, BLC, ELC, GTW, HPC, OWC, SKY, WKC)

**General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116 Technical Math.</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126 Technical Alg.</td>
<td>3</td>
</tr>
<tr>
<td>Higher Level Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sc.</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
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<tr>
<td>Oral Communications</td>
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**Subtotal** 18

**Technical Core:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EET 110 Circuits I OR</td>
<td>5</td>
</tr>
<tr>
<td>EET 119 Basic Electric.</td>
<td>(5)</td>
</tr>
<tr>
<td>EET 250 National Electric Code</td>
<td>4</td>
</tr>
<tr>
<td>EET 264 Rotating Mach.</td>
<td>2</td>
</tr>
<tr>
<td>EET 265 Rotating Mach.</td>
<td>2</td>
</tr>
<tr>
<td>EET 270 Electric Motors</td>
<td>2</td>
</tr>
<tr>
<td>EET 271 Electric Motors</td>
<td>2</td>
</tr>
<tr>
<td>EET 127 Electrical Cap.</td>
<td>1</td>
</tr>
<tr>
<td>Digital Literacy OR</td>
<td>3</td>
</tr>
</tbody>
</table>

If any student successfully tests out of Computer/Digital Literacy, he/she must take an additional Technical Course approved by the Electrical Program Coordinator. 

**Subtotal** 25-26

**Technical Core List:** Pick a course(s) for a minimum of 4 credits and a maximum of 5 credits from this list.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 114 Circuits II</td>
<td>5</td>
</tr>
<tr>
<td>EET 150 Transformers AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 151 Transformers Lab</td>
<td>1</td>
</tr>
<tr>
<td>EET 260 Robotics</td>
<td>5</td>
</tr>
<tr>
<td>EET 154 Electrical Constr.</td>
<td>2</td>
</tr>
<tr>
<td>EET 155 Electrical Constr.</td>
<td>2</td>
</tr>
<tr>
<td>EET 276 Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 277 Programmable Logic Controllers</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: This list is not all-inclusive. Other courses may be substituted at the discretion of the program instructor/advisor.

**Industrial Electrician Track - 460302701**

(Offered at BSC, BLC, ELC, GTW, HPC, OWC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 154 Electrical Constr.</td>
<td>2</td>
</tr>
<tr>
<td>EET 155 Electrical Constr.</td>
<td>2</td>
</tr>
<tr>
<td>EET 252 Electrical Constr.</td>
<td>2</td>
</tr>
<tr>
<td>EET 253 Electrical Constr.</td>
<td>2</td>
</tr>
<tr>
<td>EET 254 Electrical Constr.</td>
<td>3</td>
</tr>
<tr>
<td>EET 255 Electrical Constr.</td>
<td>4</td>
</tr>
<tr>
<td>EET 272 Electrical Motor Controls</td>
<td>2</td>
</tr>
<tr>
<td>EET 273 Electrical Motor Controls</td>
<td>2</td>
</tr>
<tr>
<td>EET 276 Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 277 Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 278 Electrical Motor Controls II and PLCs</td>
<td>3</td>
</tr>
<tr>
<td>EET 279 Electrical Motor Controls II and PLCs</td>
<td>4</td>
</tr>
</tbody>
</table>

**Technical Electives** 8

**Subtotal** 22-24

**Total Credits** 65-68

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

**Construction Electrician Track - 460302702**

(Offered at BSC, BLC, ELC, GTW, HPC, OWC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 154 Electrical Constr.</td>
<td>2</td>
</tr>
<tr>
<td>EET 155 Electrical Constr.</td>
<td>2</td>
</tr>
<tr>
<td>EET 252 Electrical Constr.</td>
<td>2</td>
</tr>
<tr>
<td>EET 253 Electrical Constr.</td>
<td>2</td>
</tr>
<tr>
<td>EET 254 Electrical Constr.</td>
<td>3</td>
</tr>
<tr>
<td>EET 255 Electrical Constr.</td>
<td>4</td>
</tr>
<tr>
<td>EET 272 Electrical Motor Controls</td>
<td>2</td>
</tr>
<tr>
<td>EET 273 Electrical Motor Controls</td>
<td>2</td>
</tr>
<tr>
<td>EET 276 Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 277 Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 278 Electrical Motor Controls II and PLCs</td>
<td>3</td>
</tr>
<tr>
<td>EET 279 Electrical Motor Controls II and PLCs</td>
<td>4</td>
</tr>
<tr>
<td>FPX 100 Fluid Power</td>
<td>3</td>
</tr>
<tr>
<td>FPX 101 Fluid Power</td>
<td>2</td>
</tr>
<tr>
<td>EET 265 Applied Fluid Power</td>
<td>3</td>
</tr>
</tbody>
</table>

**Technical Electives** 7

**Subtotal** 17-20

**Total Credits** 60-61

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

**Motor Controls Electrician Track - 460302703**

(Offered at BSC, BLC, HPC, OWC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 272 Electrical Motor Controls</td>
<td>2</td>
</tr>
<tr>
<td>EET 273 Electrical Motor Controls</td>
<td>2</td>
</tr>
<tr>
<td>EET 276 Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 277 Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 278 Electrical Motor Controls II and PLC’s</td>
<td>3</td>
</tr>
<tr>
<td>EET 279 Electrical Motor Controls II and PLC’s</td>
<td>4</td>
</tr>
<tr>
<td>FPX 100 Fluid Power</td>
<td>3</td>
</tr>
<tr>
<td>FPX 101 Fluid Power</td>
<td>2</td>
</tr>
<tr>
<td>EET 265 Applied Fluid Power</td>
<td>3</td>
</tr>
</tbody>
</table>

**Technical Electives** 7

**Subtotal** 17-20

**Total Credits** 60-63

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

**Diploma**

Electrical Technology - 4603024049

(Offered at ASC, BLC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

**General Education:**

**Area 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communication OR</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/ Humanities OR</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3</td>
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171
### Technical Core:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
</tr>
<tr>
<td>EET 250</td>
<td>National Electric Code</td>
</tr>
<tr>
<td>EET 254</td>
<td>Electrical Construction</td>
</tr>
<tr>
<td>EET 266</td>
<td>Rotating Machinery</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
</tr>
<tr>
<td>EET 127</td>
<td>Electrical Capstone</td>
</tr>
</tbody>
</table>

If any student successfully tests out of Digital Literacy, he/she must take an additional Technical Course approved by the Electrical Program Coordinator.  

**Subtotal:** 6

### Technical Electives:

- EET 253 Electrical Construction II Lab  
- EET 252 Electrical Construction II  
- EET 154 Electrical Construction I  
- ELT 265 Applied Fluid Power  
- EET 155 Electrical Construction I Lab  
- EET 268 Rotating Machinery Electrical Motor Controls I AND  
- EET 255 Electrical Construction Lab  
- EET 272 Electrical Motor Controls II AND  
- EET 273 Electrical Motor Controls II Lab AND  
- EET 276 Programmable Logic Controllers Lab OR  
- EET 279 Electrical Motor Controls II and PLC’s Lab AND  

**Technical Electives:** 7

### Technical Core List:

Pick a course(s) for a minimum of 4 credits and a maximum of 5 credits from this list.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 114</td>
<td>Circuits II</td>
</tr>
<tr>
<td>EET 150</td>
<td>Transformers AND</td>
</tr>
<tr>
<td>EET 151</td>
<td>Transformers Lab</td>
</tr>
<tr>
<td>EET 260</td>
<td>Robotics and Industrial Automation</td>
</tr>
<tr>
<td>EET 154</td>
<td>Electrical Construction I AND</td>
</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab</td>
</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
</tr>
</tbody>
</table>

**Subtotal:** 25-26

### Industrial Electrician Track - 460302401

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OW, SEC, SKY, SM, WKC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 154</td>
<td>Electrical Construction I AND</td>
</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
</tr>
<tr>
<td>EET 253</td>
<td>Electrical Construction II AND</td>
</tr>
<tr>
<td>EET 254</td>
<td>Electrical Construction II Lab OR</td>
</tr>
<tr>
<td>EET 255</td>
<td>Electrical Construction Lab</td>
</tr>
<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II AND</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab AND</td>
</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab OR</td>
</tr>
<tr>
<td>EET 278</td>
<td>Electrical Motor Controls II and PLC’s AND</td>
</tr>
<tr>
<td>EET 279</td>
<td>Electrical Motor Controls II and PLC’s Lab AND</td>
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**Total Credits:** 32-35

### Construction Electrician Track - 460302402

(Offered at BLC, BSC, ELC, GTW, HPC, HZC, MYC, OW, SEC, SKY, SM, WKC)

<table>
<thead>
<tr>
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<th>Course</th>
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<tbody>
<tr>
<td>EET 154</td>
<td>Electrical Construction I AND</td>
</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
</tr>
<tr>
<td>EET 252</td>
<td>Electrical Construction II AND</td>
</tr>
<tr>
<td>EET 253</td>
<td>Electrical Construction II Lab OR</td>
</tr>
<tr>
<td>EET 254</td>
<td>Electrical Construction AND</td>
</tr>
<tr>
<td>EET 255</td>
<td>Electrical Construction Lab</td>
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</table>

**Technical Electives:** 10

**Subtotal:** 17-18

**Total Credits:** 48-50

### Motor Controls Electrician Track - 460302403

(Offered at ASC, BLC, BSC, HPC, OW, WKC)

<table>
<thead>
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<th>Code</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II AND</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab AND</td>
</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab OR</td>
</tr>
<tr>
<td>EET 278</td>
<td>Electrical Motor Controls II and PLC’s AND</td>
</tr>
<tr>
<td>EET 265</td>
<td>Applied Fluid Power</td>
</tr>
<tr>
<td>EET 101</td>
<td>Fluid Power Lab OR</td>
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</table>

**Total Credits:** 48-52

### Electrical Construction - 460302309

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OW, SEC, SKY, SM, WKC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 110</td>
<td>Circuits I OR</td>
</tr>
<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
</tr>
<tr>
<td>EET 150</td>
<td>Transformers</td>
</tr>
<tr>
<td>EET 151</td>
<td>Transformers Lab</td>
</tr>
<tr>
<td>EET 230</td>
<td>Electrical Construction I AND</td>
</tr>
<tr>
<td>EET 254</td>
<td>Electrical Construction I Lab AND</td>
</tr>
<tr>
<td>EET 266</td>
<td>Rotating Machinery AND</td>
</tr>
<tr>
<td>EET 265</td>
<td>Rotating Machinery Lab AND</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab OR</td>
</tr>
<tr>
<td>EET 268</td>
<td>Rotating Machinery Electrical Motor Controls I AND</td>
</tr>
<tr>
<td>EET 269</td>
<td>Rotating Machinery Electrical Motor Controls I Lab</td>
</tr>
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</table>

**Technical Electives:** 5

**Total Credits:** 31-33

### Electrician Trainee Level I - 4603023039

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OW, SEC, SKY, SM, WC, WKC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>EET 110</td>
<td>Circuits I OR</td>
</tr>
<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
</tr>
</tbody>
</table>

**Technical Electives:** 3

**Total Credits:** 8

### Electrician Trainee Level II - 4603023059

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OW, SEC, SKY, SM, WKC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 110</td>
<td>Circuits I OR</td>
</tr>
<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
</tr>
</tbody>
</table>

**Technical Electives:** 8

**Total Credits:** 13

### Residential Electricity Level I - 4603023049

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OW, SEC, SKY, SM, WKC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 110</td>
<td>Circuits I OR</td>
</tr>
<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
</tr>
<tr>
<td>EET 154</td>
<td>Electrical Construction I</td>
</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab</td>
</tr>
</tbody>
</table>

**Technical Electives:** 5

**Total Credits:** 14
Academic Curricula

Residential Electricity Level II - 4603023069

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

**Electrical Motor Control Level I - 4603023079**

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

**Electrical Motor Control Level II - 4603023089**

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

**Residential Electricity Level II - 4603023069**

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

**Voice and Data Wiring Installer Level I - 4603023099**

(Offered at ASC, BLC, ELC, GTW, HPC, SMC)

**Voice and Data Wiring Installer Level II - 4603023109**

(Offered at ASC, BLC, ELC, GTW, HPC, SMC)

**Voice and Data Wiring Technician - 4603023119**

(Offered at ASC, BLC, ELC, GTW, HPC, SMC)

**MIT: Industrial Maintenance Technology**

**Industrial Maintenance Track:**

An understanding of the requirements and opportunities in maintenance, good safety practices, pride in workmanship, and an understanding of the principles and accepted practices of the maintenance trade are covered in this program. Students are trained to hold positions in factories, hospitals, hotels, etc., where multi-skilled maintenance personnel are needed. Included are courses in air conditioning, carpentry, electricity, machine tool, metal fabrication, and welding.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

**Advanced Manufacturing Technician Track**

Advanced Manufacturing requires demonstrating multiple skills and competencies. Students accepted into this program gain valuable workplace experience, working three (3) days in a manufacturing environment and two (2) days on campus in a manufacturing-based classroom. Critical conceptual components of the track include embedded Safety Culture, Workplace Organization (SS), Lean Manufacturing, Problem Solving and Maintenance Reliability, coupled with Personal Behavior development (Attendance, Communication, Diligence, Teamwork, Initiative, and Interpersonal Relations) within the program pathway. Successful students apply learned skills throughout the program in the campus classroom, campus laboratory and manufacturing workplace. The advanced manufacturing technician (AMT) track develops multiple skills within the industrial maintenance pathway for manufacturing employers.

* May be offered in different combinations.

Total Credits 23-25

Total Credits 15

Total Credits 14

Total Credits 11
Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade “C” or better in all courses and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

AMTEC Track
This program affords students the opportunity to achieve an understanding of the advanced skills needed to obtain a successful career in a constantly changing and globally competitive workforce. Students are trained in the multi-skilled maintenance trade with an emphasis on those skills needed in automotive industrial facilities.

Progression in the Industrial Maintenance AMTEC track is contingent upon achievement of a grade “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science
Industrial Maintenance Technology - 4703037019
(Of offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, JFC, MYC, OW, SKY, SMC, WKC)

General Education Core:
ENG 101 Writing I ........................................ 3
MAT 116 Technical Mathematics OR Higher .................... 3
Natural Sciences .............................................. 3
Heritage/Humanities ......................................... 3
Social/Behavioral Sciences .................................. 3
Oral Communications ...................................... 3
Subtotal 18

Industrial Maintenance Track - 470303701
(Of offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, JFC, SKY, SMC, WKC)

Technical Core:
BRX 110 Basic Blueprint Reading for Machinist OR ............... 3
BRX 120 Basic Blueprint Reading ................................ 3
ELT 102 Blueprint Reading ...................................... (2)
FPX 100 Fluid Power AND ...................................... 3
FPX 101 Fluid Power Lab OR ................................... 2
ELT 265 Applied Fluid Power .................................... (3)
IMT 110 Industrial Maintenance Electrical Principles AND ....... 3
IMT 111 Industrial Maintenance Electrical Principles Lab OR .. 2
ELT 110 Circuits I OR .......................................... (5)
EET 119 Basic Electricity ....................................... (3)
IMT 150 Maintaining Industrial Equipment I AND .......... 3
IMT 151 Maintaining Industrial Equipment I Lab ................ 2
IMT 220 Industrial Maintenance Electrical Motor Controls I AND .. 3
IMT 221 Industrial Maintenance Electrical Motor Controls I Lab OR .. 2
EET 270 Electrical Motor Controls I AND ...................... (2)
EET 271 Electrical Motor Controls I Lab OR ...................(2)
IMT 124 Electrical Machinery and Controls OR ............... (4)
IMT 120 Industrial Maintenance Rotating Machinery AND ...... (3)
IMT 121 Industrial Maintenance Rotating Machinery Lab OR ... (2)
EET 264 Rotating Machinery AND ............................. (2)
EET 265 Rotating Machinery Lab ............................... (2)
IMT 100 Welding for Maintenance AND ....................... 3
IMT 101 Welding for Maintenance Lab ......................... 2
WLD 120 Shielded Metal Arc-Welding AND ...................(2)
WLD 121 Shielded Metal Arc-Welding Fillet Lab OR............. (3)
WLD 140 Gas Metal Arc-Welding AND ........................(2)
WLD 141 Gas Metal Arc Welding Fillet Lab OR ................ (3)
WLD 152 Basic Welding B ..................................... (3)
IMT 289 Industrial Maintenance Technology Capstone .........

Subtotal 28-32

Technical Electives:
Eighteen (18) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.

Subtotal 18

Total Credits 64-68

**If courses equaling 10 credits are taken, five (5) credits may be used as electives.

Technical Electives List*:
ACR 100 Refrigeration Fundamentals .................................. 3
ACR 101 Refrigeration Fundamentals Lab .......................... 2
ACR 250 Cooling and Dehumidification .............................. 3
ACR 251 Cooling and Dehumidification Lab ....................... 2
ACR 260 Heating and Humidification .............................. (3)
ACR 261 Heating and Humidification Lab .......................... 2
BRX 210 Mechanical Blueprint Reading for Machinist .......... 2
CAD 100 Introduction to Computer Aided Design OR ........... (3)
CAD 150 Introduction to Programming: CAD .................... 4
CMM 110 Fundamentals of Machine Tools – A .................... 3
CMM 112 Fundamentals of Machine Tools – B .................... 4
CMM 114 Fundamentals of Machine Tools ........................ 7
CMM 120 Applied Machining I .................................... 3
CMM 122 Applied Machining II .................................... 3
CMM 124 Applied Machining ...................................... 6
CMM 224 Advanced Industrial Machining ........................ 6
COE 199 Cooperative Education .................................. 1-8
EET 148 Electronic Drafting ........................................ 3
EET 150 Transformers ............................................ 2
EET 151 Transformers Lab ....................................... 2
EET 254 Electrical Construction ................................... 3
EET 255 Electrical Construction Lab ............................... 4
EET 264 Rotating Machinery ...................................... 2
EET 265 Rotating Machinery Lab .................................. 2
EET 276 Programmable Logic Controllers ......................... 2
EET 277 Programmable Logic Controllers Lab .................. 2
ELT 106 Mechanical Engineering Graphics ......................... 2
ELT 122 Mechanical Power Transmission Systems ............... 3
ELT 124 Mechanical Power Transmission Systems Lab . ....... 1
ELT 243 Electric Power Distribution ................................ 3
ELT 250 Programmable Logic Controllers ....................... (4)
IMT 100 Welding for Maintenance ................................ 3
IMT 101 Welding for Maintenance Lab ............................ 2
IMT 115 Maintenance Machining I ............................... 2
IMT 116 Maintenance Machining I Lab ........................... 5
IMT 120 Industrial Maintenance Rotating Machinery .......... 3
IMT 121 Industrial Maintenance Rotating Machinery Lab ....... 2
IMT 130 Industrial Maintenance Electrical Concepts ............. 6
IMT 150 Maintaining Industrial Equipment ....................... 3
IMT 151 Maintaining Industrial Equipment Lab .................. 2
IMT 198 Practicum ............................................. 1-8
IMT 199 Cooperative Education .................................. 1-8
IMT 200 Industrial Robotics and Robotic Maintenance .......... 4
IMT 220 Industrial Maintenance Electrical Motor Controls I .................................................. 3
IMT 221 Industrial Maintenance Electrical Motor Controls I Lab .................................................. 2
IMT 230 Industrial Maintenance of PLCs ......................... 5
IMT 231 Industrial Maintenance of PLCs Lab .......................... 2
IMT 240 Industrial Maintenance Motor Control Concepts ........ 6
IMT 241 Industrial Maintenance Motor Control Concepts Lab .......... 4
IMT 250 Maintaining Industrial Equipment II ..................... 2
IMT 251 Maintaining Industrial Equipment II Lab ................ 3
IMT 280 Advanced Programmable Logic Controllers .......... 3
IMT 281 Advanced Programmable Logic Controllers Lab .......... 2
IMT 289 Industrial Maintenance Technology Capstone .......... 1
IMT 290 Special Problems ...................................... 1
ISX 100 Industrial Safety ........................................ 3
ISX 101 Introduction to Industrial Safety ......................... 3
MST 200 Advanced Hydraulic Systems ........................... 3
MST 201 Advanced Hydraulic Systems Lab ........................ 2

174
### Advanced Manufacturing Technician Track - 470303702

(Offered at BSC, BLC, ELC, GTW, HPC, JFC, FJC, SKY, SMH, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 119</td>
<td>Shielded Metal Arc-Welding Groove Welds</td>
<td>3</td>
</tr>
<tr>
<td>WLD 151</td>
<td>Basic Welding A</td>
<td>2</td>
</tr>
</tbody>
</table>

**Technical Core:**
- Digital Literacy .................................................. 3
- BRX 120 Basic Blueprint Reading ................................ 3
- CMM 110 Fundamentals of Machine Tools - A .................. 3
- EET 270 Electrical Motor Controls I AND .................. 2
- EET 271 Electrical Motor Controls I Lab .................. 2
- EET 272 Electrical Motor Controls II AND ................ 2
- EET 273 Electrical Motor Controls Lab II .................. 2
- EET 276 Programmable Logic Controllers AND ............... 2
- EET 277 Programmable Logic Controllers Lab ............... 2
- FPX 100 Fluid Power AND ....................................... 3
- FPX 101 Fluid Power Lab ........................................ 2
- IET 1301 Safety Culture .......................................... 1
- IET 1302 SS .......................................................... 1
- IET 1303 Total Production System Maintenance ........... 1
- IET 1304 Problem Solving ......................................... 1
- IET 1305 Maintenance Reliability ............................... 1
- IMT 100 Welding for Maintenance AND .......................... 3
- IMT 101 Welding for Maintenance Lab .......................... 2
- IMT 110 Industrial Maintenance Electrical Principles AND .. 3
- IMT 111 Industrial Maintenance Electrical Principles Lab ... 2
- IMT 150 Maintaining Industrial Equipment AND ................ 3
- IMT 151 Maintaining Industrial Equipment Lab ................ 2
- IMT 198 Practicum .................................................. 2
- IMT 200 Industrial Robotics and Robotic Maintenance .... 4
- IMT 289 Industrial Maintenance Technology Capstone ...... 1
- Subtotal ..................................................................... 53
- Total Credits ........................................................... 71

*Note: Only Integrated Engineering Technology (IET) courses are approved for substitution into the Advanced Manufacturing Technician Track.

**Technical Electives:**
- IET 109 Safety ......................................................... 3
- IET 120 Machine Tool Operations .................................. 4
- IET 203 Programmable Logic Controllers ..................... 5
- IET 205 Robot Maintenance .......................................... 4
- Subtotal ..................................................................... 16
- Total Credits ............................................................... 62

### Diploma

### Industrial Maintenance Technician - 4703034049

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SKY, SMH, WKC)

**General Education:**

**Area 1 =**
- Written Communication, Oral Communications, or Heritage/Humanities ................................................. 3

**Area 2 =**
- MAT 116 Technical Mathematics OR Higher ........................... 3
- Subtotal ..................................................................... 6

### Technical Core:
- Digital Literacy ......................................................... 3
- BRX 120 Basic Blueprint Reading OR ............................. 3
- BRX 110 Basic Blueprint Reading for Machinist OR ......... (2)
- BRX 112 Blueprint Reading for Machinist OR ............... (4)
- EET 102 Blueprint Reading ......................................... (2)
- FPX 100 Fluid Power AND .......................................... (3)
- FPX 101 Fluid Power Lab ............................................. (2)
- EET 265 Applied Fluid Power ....................................... (3)
- IMT 110 Industrial Maintenance Electrical Principles AND .. (3)
- IMT 111 Industrial Maintenance Electrical Principles Lab OR .. (2)
- IMT 110 Circuits I OR .................................................... (5)
- EET 119 Basic Electricity ............................................. (5)
- IMT 150 Maintaining Industrial Equipment I AND ............ (3)
- IMT 151 Maintaining Industrial Equipment I Lab .............. (2)
- IMT 220 Industrial Maintenance Electrical Motor Controls I AND . (3)
- IMT 221 Industrial Maintenance Electrical Motor Controls I Lab OR . (2)
- EET 270 Electrical Motor Controls I AND ........................ (2)
- EET 271 Electrical Motor Controls I Lab OR .................. (2)
- EET 244 Electrical Machinery and Controls OR .............. (4)
- IMT 120 Industrial Maintenance Rotating Machinery AND .......... (3)
- IMT 121 Industrial Maintenance Rotating Machinery Lab OR .......... (2)
- EET 264 Rotating Machinery AND ................................... (2)
- EET 265 Rotating Machinery Lab .................................. (2)
- IMT 100 Welding for Maintenance AND ................................ 3
- IMT 101 Welding for Maintenance Lab OR .......................... 2
- WLD 120 Shielded Metal Arc Welding AND ...................... (2)
- WLD 121 Shielded Metal Arc Welding Fillet Lab OR .......... (3)
- WLD 140 Gas Metal Arc-Welding AND ................................. (2)
- WLD 141 Gas Metal Arc-Welding Fillet Lab OR .................. (3)
- WLD 152 Basic Welding B ............................................. (5)
- IMT 289 Industrial Maintenance Technology Capstone .......... (1)
- Subtotal ..................................................................... 28-32

**Total Credits**

62-66

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### Automotive Manufacturing Technical Education Collaborative (AMTEC)

**Track - 470303703**

(Offered at BSC, BLC, HPC, JFC, FJC, SKY, SMH, WKC)

**Technical Core:**
- Digital Literacy ......................................................... 3
- BRX 110 Basic Blueprint Reading for Machinist OR ............ (2)
- BRX 120 Basic Blueprint Reading OR ................................ 3
- EET 102 Blueprint Reading ............................................ (2)
- FPX 100 Fluid Power AND ............................................ (3)
- FPX 101 Fluid Power Lab ............................................... (2)
- EET 265 Applied Fluid Power ........................................ (3)
- IMT 110 Industrial Maintenance Electrical Principles AND .... (3)
- IMT 111 Industrial Maintenance Electrical Principles Lab OR ... (2)
- IMT 110 Circuits I OR .................................................... (5)
- EET 119 Basic Electricity ............................................. (5)
- IMT 150 Maintaining Industrial Equipment I AND ............ (3)
- IMT 151 Maintaining Industrial Equipment I Lab .............. (2)
- IMT 220 Industrial Maintenance Electrical Motor Controls I AND . (3)
- IMT 221 Industrial Maintenance Electrical Motor Controls I Lab OR . (2)
- EET 270 Electrical Motor Controls I AND ........................ (2)
- EET 271 Electrical Motor Controls I Lab OR .................. (2)
- EET 244 Electrical Machinery and Controls OR .............. (4)
- IMT 120 Industrial Maintenance Rotating Machinery AND .......... (3)
- IMT 121 Industrial Maintenance Rotating Machinery Lab OR .......... (2)
- EET 264 Rotating Machinery AND ................................... (2)
- EET 265 Rotating Machinery Lab .................................. (2)
- IMT 100 Welding for Maintenance AND ................................ 3
- IMT 101 Welding for Maintenance Lab OR .......................... 2
- WLD 120 Shielded Metal Arc Welding AND ...................... (2)
- WLD 121 Shielded Metal Arc Welding Fillet Lab OR .......... (3)
- WLD 140 Gas Metal Arc-Welding AND ................................. (2)
- WLD 141 Gas Metal Arc-Welding Fillet Lab OR .................. (3)
- WLD 152 Basic Welding B ............................................. (5)
- IMT 289 Industrial Maintenance Technology Capstone .......... (1)
- Subtotal ..................................................................... 28-32

**Technical Electives:**
- IET 109 Safety ......................................................... 3
- IET 120 Machine Tool Operations .................................. 4
- IET 203 Programmable Logic Controllers ..................... 5
- IET 205 Robot Maintenance .......................................... 4
- Subtotal ..................................................................... 16

**Total Credits**

62-66
Technical Electives:
Fifteen (15) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.

Subtotal  
15

Total Credits  
49-53

**If courses equaling 10 credits are taken, five (5) credits may be used as electives.

Certificates

Fluid Power Mechanic - 4703033129
(Offered at BLC, BSC, ELC, HEC, HPC, MYC, OWC, SMC)

FPX 100 Fluid Power AND ........................................... 3
FPX 101 Fluid Power Lab OR ......................................... 2
ELT 265 Applied Fluid Power ........................................ 3
MST 200 Advanced Hydraulic Systems AND ................... 3
MST 201 Advanced Hydraulic Systems Lab OR .................. 2
MST 204 Advanced Pneumatic Systems AND .................... 3
MST 205 Advanced Pneumatic Systems Lab ....................... 2

Total Credits  
8-10

Industrial Maintenance Machinists Mechanic - 4703033119
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

BRX 120 Basic Blueprint Reading OR ............................. 3
BRX 110 Basic Blueprint Reading for Machinist OR ........... (2)
BRX 112 Blueprint Reading for Machinist OR ................... (4)
ELT 102 Blueprint Reading ........................................... (2)
IMT 100 Welding for Maintenance AND .......................... 3
IMT 101 Welding for Maintenance Lab OR ........................ 2
WLD 120 Shielded Metal Arc-Welding AND ....................... 2
WLD 121 Shielded Metal Arc-Welding Fillet Lab OR .......... (2)
WLD 140 Gas Metal Arc Welding AND .............................. 2
WLD 141 Gas Metal Arc Welding Fillet Lab OR .................. 2
WLD 152 Basic Welding B ............................................. (5)
IMT 115 Maintenance Machining I AND .......................... 2
IMT 116 Maintenance Machining I Lab OR ...................... 5
CMM 114 Fundamentals of Machine Tools OR ................... (7)
CMM 110 Fundamentals of Machine Tools A AND ............. (3)
CMM 112 Fundamentals of Machine Tools B ....................... (4)
IMT 150 Maintaining Industrial Equipment I ..................... 3
IMT 151 Maintaining Industrial Equipment I Lab ................ 2

Total Credits  
19-21

Industrial Maintenance Electrical Mechanic - 4703033159
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

FPX 100 Fluid Power AND ........................................... 3
FPX 101 Fluid Power Lab OR ......................................... 2
ELT 265 Applied Fluid Power ........................................ 3
IMT 110 Industrial Maintenance Electrical Principles AND .... 3
IMT 111 Industrial Maintenance Electrical Principles Lab OR .... 2
ELT 110 Circuits I OR ............................................... (5)
EET 119 Basic Electricity ............................................. (5)
IMT 150 Maintaining Industrial Equipment I ..................... 3
IMT 151 Maintaining Industrial Equipment I Lab ................ 2

Total Credits  
12-15

Industrial Maintenance Mechanic Level I - 470303319
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

FPX 100 Fluid Power AND ........................................... 3
FPX 101 Fluid Power Lab OR ......................................... 2
ELT 265 Applied Fluid Power ........................................ 3
IMT 110 Industrial Maintenance Electrical Principles AND .... 3
IMT 111 Industrial Maintenance Electrical Principles Lab OR .... 2
ELT 110 Circuits I OR ............................................... (5)
EET 119 Basic Electricity ............................................. (5)
IMT 150 Maintaining Industrial Equipment I ..................... 3
IMT 151 Maintaining Industrial Equipment I Lab ................ 2

Total Credits  
13-15

Industrial Maintenance Mechanic Level II - 4703033149
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

BRX 120 Basic Blueprint Reading OR ............................. 3
BRX 110 Basic Blueprint Reading for Machinist OR ........... (2)
BRX 112 Blueprint Reading for Machinist OR ................... (4)
ELT 102 Blueprint Reading ........................................... (2)
FPX 100 Fluid Power AND ........................................... 3
FPX 101 Fluid Power Lab OR ......................................... 2
ELT 265 Applied Fluid Power ........................................ 3
IMT 110 Industrial Maintenance Electrical Principles AND .... 3
IMT 111 Industrial Maintenance Electrical Principles Lab OR .... 2
ELT 110 Circuits I OR ............................................... (5)
EET 119 Basic Electricity ............................................. (5)
IMT 100 Welding for Maintenance AND .......................... 3
IMT 101 Welding for Maintenance Lab OR ...................... 2
WLD 120 Shielded Metal Arc-Welding AND ....................... 2
WLD 121 Shielded Metal Arc-Welding Fillet Lab OR .......... (2)
WLD 140 Gas Metal Arc Welding AND .............................. 2
WLD 141 Gas Metal Arc Welding Fillet Lab OR .................. 2
WLD 152 Basic Welding B ............................................. (5)
IMT 115 Maintenance Machining I AND .......................... 2
IMT 116 Maintenance Machining I Lab OR ...................... 5
CMM 114 Fundamentals of Machine Tools OR ................... (7)
CMM 110 Fundamentals of Machine Tools A AND ............. (3)
CMM 112 Fundamentals of Machine Tools B ....................... (4)
IMT 150 Maintaining Industrial Equipment I ..................... 3
IMT 151 Maintaining Industrial Equipment I Lab ................ 2

Total Credits  
22-26

Electro-Hydraulic Mechanic - 4703033169
(Offered at BLC, HEC, JFC, MYC, OWC, SMC)

IMT 110 Industrial Maintenance Electrical Principles AND .... 3
IMT 111 Industrial Maintenance Electrical Principles Lab OR .... 2
ELT 110 Circuits I OR ............................................... (5)
EET 119 Basic Electricity ............................................. (5)
FPX 100 Fluid Power AND ........................................... 3
FPX 101 Fluid Power Lab OR ......................................... 2
ELT 265 Applied Fluid Power ........................................ 2
MST 206 Electro-Hydraulic .......................................... 3
MST 207 Electro-Hydraulic Lab ..................................... 2

Total Credits  
13-15
Chemical Operator - 4703033179  
(Offered at MYC, WKC)  
CHE 140 Introductory General Chemistry .................................................. 3  
CHE 145 Introductory General Chemistry Lab ............................................. 1  
GEN 276 Employment and Professional Skills ........................................... 1  
IMT 140 Industrial Mechanics ................................................................... 3  
IMT 141 Industrial Mechanics Lab ............................................................... 3  
ITE 250 Team Dynamics and Problem Solving ............................................. 3  
ISX 100 Industrial Safety ............................................................................. 3  
MAT 116 Technical Mathematics ................................................................. 3  
PHX 150 Introduction to Physics ................................................................. 3  
QMS 101 Introduction to Quality Systems .................................................... 3  
TEC 200 Technical Communications .......................................................... 3  
Digital Literacy ............................................................................................ 0-3  
Total Credits ............................................................................................... 27-30

Presswork and Die Maintenance Technician Level I – 4703033209  
(Offered at OW, SMC)  
IMT 115 Maintenance Machining I AND ..................................................... 2  
IMT 116 Maintenance Machining I Lab OR .................................................. 5  
CMM 114 Fundamentals of Machine Tools OR ............................................ 7  
CMM 110 Fundamentals of Machine Tools-A AND .................................... 3  
CMM 112 Fundamentals of Machine Tools-B ............................................. 4  
IMT 100 Welding for Maintenance AND ..................................................... 3  
IMT 101 Welding for Maintenance Lab ......................................................... 2  
IMT 260 Presswork and Die Maintenance .................................................... 7  
Total Credits ............................................................................................... 19

Presswork and Die Maintenance Technician Level II – 4703033219  
(Offered at OW, SMC)  
IMT 115 Maintenance Machining I AND ..................................................... 2  
IMT 116 Maintenance Machining I Lab OR .................................................. 5  
CMM 114 Fundamentals of Machine Tools OR ............................................ 7  
CMM 110 Fundamentals of Machine Tools-A AND .................................... 3  
CMM 112 Fundamentals of Machine Tools-B ............................................. 4  
IMT 100 Welding for Maintenance AND ..................................................... 3  
IMT 101 Welding for Maintenance Lab ......................................................... 2  
IMT 260 Presswork and Die Maintenance .................................................... 7  
FPX 100 Fluid Power .................................................................................... 3  
FPX 101 Fluid Power Lab ............................................................................. 2  
IMT 110 Industrial Maintenance Electrical Principles ................................ 3  
IMT 111 Industrial Maintenance Electrical Principles Lab ....................... 2  
IMT 220 Industrial Maintenance Electrical Motor Controls I .................... 3  
IMT 221 Industrial Maintenance Electrical Motor Controls I Lab .............. 2  
Total Credits ............................................................................................... 34

Industrial Maintenance Robotics Technician – 4703033239  
(Offered at BSC, BLG, ELC, HPC, JFC, MYC, SMC, WKC)  
IMT 110 Industrial Maintenance Electrical Principles AND ..................... 3  
IMT 111 Industrial Maintenance Electrical Principles Lab OR ................... 2  
ELT 110 Circuits I OR .................................................................................. 5  
EET 119 Basic Electricity .............................................................................. 5  
FPX 100 Fluid Power AND .......................................................................... 3  
FPX 101 Fluid Power Lab ............................................................................. 2  
ELT 265 Applied Fluid Power ....................................................................... 3  
IMT 220 Industrial Maintenance Electrical Motor Controls I AND .......... 3  
IMT 221 Industrial Maintenance Electrical Motor Control I Lab OR ........ 2  
EET 270 Electrical Motor Controls I AND ................................................ 2  
EET 271 Electrical Motor Controls I Lab OR .............................................. 2  
ELT 244 Electrical Machinery and Controls OR ......................................... 4  
IMT 120 Industrial Maintenance Rotating Machinery AND ....................... 3  
IMT 121 Industrial Maintenance Rotating Machinery Lab ......................... 2  
IMT 280 Advanced Programmable Logic Controllers AND .................... 3  
IMT 281 Advanced Programmable Logic Controllers Lab OR ............... 2  
EET 276 Programmable Logic Controllers AND ...................................... 2  
EET 277 Programmable Logic Controllers Lab .......................................... 2  
IMT 150 Maintaining Industrial Equipment I .............................................. 3  
IMT 151 Maintaining Industrial Equipment I Lab ....................................... 2  
IMT 200 Industrial Robotic and Robotic Maintenance .............................. 4  
Total Credits ............................................................................................... 25-29

Marine Technology  
The Marine Technology curriculum is designed to provide a strong theoretical base for employees of the inland marine industry. The program introduces students to basic inland marine principles and concepts by applying contemporary skills in a variety of employment positions based on industry needs. It provides students with a strong foundation of managerial and operational knowledge by using a problem-solving approach in state-of-the-art classroom and work experience environments. It builds leadership, management, communication skills, and professional ethics, which serve as a foundation for future development and career success. The program contains core technical courses and advanced courses in each track to address the employment needs of the domestic market.

Associate in Applied Science  

Marine Technology – 4903997019  
(Offered at WKC)  
ENG 101 Writing I ........................................................................................ 3  
MAT 116 Technical Mathematics or Higher Level Quantitative Reasoning Course ................................................................. 3  
GEN 140 Development of Leadership .......................................................... 3  
Subtotal ........................................................................................................ 15

Technical Core (required for all tracks):  
Digital Literacy .............................................................................................. 0-3  
Introduction to Business ............................................................................. 3  
Introduction to Marine Technology ............................................................. 3  
Anatomy of a Towboat ............................................................................... 3  
Basic Marine Safety .................................................................................... 3  
Applied Marine Weather ........................................................................... 3  
Marine Crew Wellness ............................................................................... 3  
Environmental Protection Rules ............................................................... 3  
Introduction to Homeland Security ............................................................ 3  
Introduction to Emergency Management ................................................ 3  
Subtotal ....................................................................................................... 27-30

Wheelhouse Management Track – 490399701  
(Offered at WKC)  
BAS 160 Personal Finance ........................................................................... 3  
BAS 283 Principles of Management ............................................................. 3  
BAS 287 Supervisory Management ............................................................. 3  
MRN 200 Shipboard Deck Operations ......................................................... 3  
MRN 201 Rules of the Road ........................................................................ 3  
MRN 202 Piloting and Navigation ............................................................... 3  
Track Subtotal ............................................................................................. 18

Track Total .................................................................................................. 60-63

Marine Engineering Track – 490399702  
(Offered at WKC)  
MRN 204 Marine Electrical Systems .......................................................... 5  
MRN 206 Marine Diesel .............................................................................. 5  
MRN 212 Marine Fluid Systems ................................................................. 5  
MRN 214 Marine Refrigeration Systems ................................................... 4  
Track Subtotal ............................................................................................. 19

Track Total .................................................................................................. 61-64
Marine Logistics Operations Track – 490399703
(Offered at WKC)
BAS 120 Personal Finance ................................................. 3
BAS 283 Principles of Management .................................. 3
BAS 289 Operations Management ................................... 3
MRN 208 Inland River Systems ....................................... 3
LOM 100 Introduction to Logistics Management .................. 3
LOM 101 Transportation .................................................. 3
Track Subtotal ............................................................. 18
Track Total ................................................................. 60-63

Marine Culinary Management Track – 490399705
(Offered at WKC)
BAS 120 Personal Finance ................................................. 3
BAS 283 Principles of Management .................................. 3
CUL 100 Introduction to Business .................................... 3
CUL 200 Sanitation and Safety ....................................... 2
CUL 230 Basic Nutrition .................................................. 3
CUL 280 Cost and Control .............................................. 3
MRN 208 Inland River Systems ....................................... 3
Track Subtotal ............................................................. 19
Track Total ................................................................. 61-64

Certificates

Marine Technology Business – 4903993019
(Offered at WKC)
Digital Literacy .............................................................. 0-3
BAS 120 Personal Finance ................................................. 3
BAS 160 Introduction to Business .................................... 3
BAS 283 Principles of Management .................................. 3
BAS 289 Operations Management ................................... 3
LOM 100 Introduction to Logistics Management .................. 3
LOM 101 Transportation .................................................. 3
Total ............................................................... 18-21

Marine Industry - 4903993029
(Offered at WKC)
Digital Literacy .............................................................. 0-3
MRN 100 Introduction to Marine Technology ....................... 3
MRN 101 Anatomy of a Towboat ..................................... 3
MRN 102 Basic Marine Safety ......................................... 3
MRN 103 Applied Marine Weather ................................... 3
MRN 104 Marine Crew Wellness .................................... 3
MRN 203 Environmental Protection Rules ......................... 3
Total ............................................................... 18-21

Marine Culinary – 4903993039
(Offered at WKC)
Digital Literacy .............................................................. 0-3
CUL 100 Introduction to Culinary Arts .............................. 2
CUL 200 Sanitation and Safety ....................................... 2
CUL 230 Basic Nutrition .................................................. 3
CUL 280 Cost and Control .............................................. 3
MRN 100 Introduction to Marine Technology ....................... 3
MRN 208 Inland River Systems ....................................... 3
Total ............................................................... 16-19

Marine Engineering – 4903993049
(Offered at WKC)
MRN 203 Environmental Protection Rules ........................ 3
MRN 204 Marine Electrical Systems .................................. 5
MRN 206 Marine Diesel .................................................. 5
MRN 212 Marine Fluid Systems ....................................... 5
MRN 214 Marine Refrigeration Systems ............................. 4
Total ............................................................... 22

The Massage Therapy Technology degree offers a flexible, innovative curriculum designed to meet the changing needs of the health care marketplace with relation to Massage Therapy. The program will educate students in the principles of integrative massage modalities and the promotion of health and well-being. The program will provide students with the skills and knowledge necessary to work in a variety of settings, including but not limited to, hospitals, massage clinics, rehabilitation clinics, spas, behavioral health clinics, wellness/fitness centers, doctor’s offices, private practice offices, and athletic programs at the high school, college, or professional level.

The Massage Therapy Certificate Program will train Massage Therapist in techniques ranging from entry level Swedish Massage, for its therapeutic and relaxation benefits, through advanced clinical massage (sports and orthopedic massage) for the specific needs of athletes and to aid in recovery and rehabilitation from illness, injury and surgery. Using medical models, therapists will have expanded knowledge in Anatomy and Physiology, Kinesiology and Medical Terminology. Other modalities are introduced to the Massage Therapist’s education to enhance their skills and knowledge. Business education is included in the program to assist therapists in the operation of a private practice.

CPR requirements must be successfully completed prior to enrolling in MSG 232, Advanced Clinical Massage I. The course must be Professional or Healthcare Provider. Completion of CPR 100 meets program requirements.

Associate in Applied Science

Massage Therapy Technology - 5109997019
(Offered at GTW)
ENG 101 Writing I ......................................................... 3
ENG 102 Writing II ....................................................... 3
COM 252 Introduction to Interpersonal Communication ......... 3
Quantitative Reasoning ................................................... 3
BIO 135 Basic Anatomy and Physiology OR ..................... 4
BIO 137 Human Anatomy and Physiology I AND ................ 4
BIO 139 Human Anatomy and Physiology II ..................... 4
PSY 110 General Psychology .......................................... 3
Social/Behavioral Sciences ............................................ 3
Heritage/Humanities .................................................... 6
Subtotal ................................................................. 28-32

Digital Literacy .............................................................. 0-3
MIT 103 Medical Office Terminology OR ......................... 3
CLA 131 Medical Terminology from Greek and Latin OR ...... (3)
AHS 115 Medical Terminology ........................................ 3
SFA 100 Safety and First Aid .......................................... 3
BAS 200 Small Business Management OR ...................... 3
BAS 288 Personal and Organizational Leadership ................ (3)
MSG 117 Musculoskeletal Anatomy and Physiology I .......... 4
MSG 119 Musculoskeletal Anatomy and Physiology II ........ 4
MSG 132 Massage Technique I ....................................... 3
MSG 134 Massage Technique II ...................................... 3
MSG 232 Advanced Clinical Massage I ............................ 3
MSG 234 Advanced Clinical Massage II ........................... 3
MSG 286 Massage Therapy Student Clinic ......................... 2
MSG 220 Massage Therapy Practice ................................. 3
Subtotal ................................................................. 32-35
Total Credits (AAS) ..................................................... 60-67

178
Academic Curricula

Certificate

Massage Therapy - 510993019
(Offered at GTW)

MIT 103  Medical Office Terminology OR ........................................... 3
CLA 131  Medical Terminology from Greek and Latin OR (3) ........ 3
AHS 115  Medical Terminology ................................................................. 3
MSG 117  Musculoskeletal Anatomy and Physiology I .................... 4
MSG 119  Musculoskeletal Anatomy and Physiology II .................. 4
MSG 132  Massage Technique I ............................................................. 3
MSG 134  Massage Technique II ............................................................. 3
MSG 232  Advanced Clinical Massage I ............................................... 3
MSG 234  Advanced Clinical Massage II ............................................... 3
MSG 286  Massage Therapy Student Clinic ......................................... 2
MSG 220  Massage Therapy Pathology ................................................... 3
Total Credits 29

Masonry

The Masonry program prepares students for employment in the construction of houses, commercial structures and other projects involving brick, stone and other masonry materials. This program includes blueprint reading, introductory, intermediate and advanced masonry projects. Cost estimating, preparing materials lists, and practical experiences are included.

Progression in the Masonry program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average.

Diploma

Construction Mason - 4601014019
(Offered at BLC, BSC, JFC, MYC)

General Education: 6-9 credit hour requirement for diplomas in areas 1-3
Area 1 = Written Communication, Oral Communications, or Heritage/Humanities ........................................... 3
Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ........................................... 3
Subtotal 6

Technical Courses:

Computer/Digital Literacy course OR demonstrated competency ........................................... 0-3
BRX 220  Blueprint Reading for Construction ........................................... 3
ISX 100  Industrial Safety OR ................................................................. 3
ISX 101  Introduction to Industrial Safety ............................................. (3)
MSY 105  Introductory Masonry ............................................................. 3
MSY 115  Intermediate Masonry ........................................................... 3
MSY 199  Cooperative Education OR .................................................... 3
MSY 198  Practicum ............................................................................. 3
MSY 205  Advanced Masonry ............................................................... 3
MSY 215  Masonry Lab ....................................................................... 3
MSY 225  Brick Construction ............................................................... 3
MSY 235  Special Techniques in Brick Construction ...................... 3
MSY 245  Anchors and Reinforcement ................................................ 3
MSY 275  Fireplace Construction ......................................................... 3
MSY 298  Practicum ............................................................................. 3
Technical Electives* ................................................................. 6
Subtotal 42-45
Total Credits 48-51

Electives (Optional):

MSY 291  Special Problems III ......................................................... (1-3)

Certificates

Bricklayer Trainee - 4601013019
(Offered at BLC, BSC, JFC, MYC, SMC)

ISX 100  Industrial Safety OR ................................................................. 3
ISX 101  Introduction to Industrial Safety ............................................. (3)
MSY 105  Introductory Masonry ............................................................. 3
MSY 115  Intermediate Masonry ........................................................... 3
MSY 199  Cooperative Education OR .................................................... 3
MSY 198  Practicum ............................................................................. 3
MSY 205  Advanced Masonry ............................................................... 3
MSY 215  Masonry Lab ....................................................................... 3
MSY 225  Brick Construction ............................................................... 3
MSY 235  Special Techniques in Brick Construction ...................... 3
MSY 245  Anchors and Reinforcement ................................................ 3
MSY 275  Cooperative Education OR .................................................... 3
Subtotal 27

Bricklayer Helper - 4601013029
(Offered at BLC, BSC, JFC, MYC)

ISX 100  Industrial Safety OR ................................................................. 3
ISX 101  Introduction to Industrial Safety ............................................. (3)
MSY 105  Introductory Masonry ............................................................. 3
MSY 215  Masonry Lab ....................................................................... 3
MSY 291  Special Problems III ......................................................... (3)
Total Credits 12

Construction Bricklayer - 4601013039
(Offered at BLC, BSC, JFC, MYC)

BRX 220  Blueprint Reading for Construction ........................................... 3
ISX 100  Industrial Safety OR ................................................................. 3
ISX 101  Introduction to Industrial Safety ............................................. (3)
MSY 105  Introductory Masonry ............................................................. 3
MSY 115  Intermediate Masonry ........................................................... 3
MSY 199  Cooperative Education OR .................................................... 3
MSY 198  Practicum ............................................................................. 3
MSY 205  Advanced Masonry ............................................................... 3
MSY 215  Masonry Lab ....................................................................... 3
MSY 225  Brick Construction ............................................................... 3
MSY 235  Special Techniques in Brick Construction ...................... 3
MSY 245  Anchors and Reinforcement ................................................ 3
MSY 275  Fireplace Construction ......................................................... 3
MSY 298  Cooperative Education OR .................................................... 3
Subtotal 36

Electives (Optional):

MSY 291  Special Problems III ......................................................... (1-3)

Stone Mason - 4601013049
(Offered at BLC, BSC, JFC, MYC)

BRX 220  Blueprint Reading for Construction ........................................... 3
MSY 105  Introductory Masonry ............................................................. 3
MSY 115  Intermediate Masonry ........................................................... 3
MSY 205  Advanced Masonry ............................................................... 3
MSY 215  Masonry Lab ....................................................................... 3
MSY 245  Anchors and Reinforcement ................................................ 3
MSY 253  Masonry Floors and Steps .................................................... 3
MSY 257  Stone ................................................................................. 3
Subtotal 27
Total Credits 3

*Technical Electives include three courses from the following:
- Computer and Digital Literacy
- Quantitative Reasoning
- Written Communication
- Oral Communication
- Industrial Safety
- Cooperative Education
- Practicum
**Mechatronic Systems**

A Mechatronic Systems Operating Technician will function as a well-grounded machine operator in a complex system, with responsibility for efficient operation of the equipment with minimal down-times.

**Certificate**

**Mechatronic Systems Operating Technician - 1500003179**

*(Offered at JFC, SKY, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MES 110</td>
<td>Mechatronic Systems Electrical Components</td>
</tr>
<tr>
<td>MES 120</td>
<td>Mechatronic Systems Mechanical Components</td>
</tr>
<tr>
<td>MES 130</td>
<td>Mechatronic Systems Hydraulic / Pneumatic Components</td>
</tr>
<tr>
<td>MES 150</td>
<td>Mechatronic Systems Programmable Controllers</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Medical Administrative Services**

**Certificate**

**Medical Coding and Reimbursement Specialist - 5107133029**

*(Offered at JFC, SKY)*

The Medical Coding and Reimbursement Specialist program insures that medical services are correctly identified on insurance claim forms. The individual codes the diagnoses and procedures performed, submits claim forms, researches and corrects insurance claim rejections. This program prepares graduates to file insurance forms for reimbursement and to code properly using the ICD, CPT and the HCPCS codes for patient diagnoses and procedures. Students are provided with an in-depth knowledge of medical terminology, anatomy, and coding procedures.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS 109</td>
<td>Introduction to Body Structure and Functions OR</td>
</tr>
<tr>
<td>BIO 130</td>
<td>Aspects of Human Biology OR</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
</tr>
<tr>
<td></td>
<td>Computer/Digital Literacy</td>
</tr>
<tr>
<td>MBS 100</td>
<td>Introduction to the Health Care Field OR</td>
</tr>
<tr>
<td>HIT 100</td>
<td>Introduction to Healthcare Delivery Systems</td>
</tr>
<tr>
<td>MBS 110</td>
<td>Medical Insurance and Claims Processing</td>
</tr>
<tr>
<td>MBS 120</td>
<td>Coding for Reimbursement OR</td>
</tr>
<tr>
<td>MIT 204</td>
<td>Medical Coding AND</td>
</tr>
<tr>
<td>MIT 205</td>
<td>Advanced Medical Coding</td>
</tr>
<tr>
<td>MBS 199</td>
<td>Internship</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>23-38</strong></td>
</tr>
</tbody>
</table>

**Medical Assisting**

A medical assistant is an integral member of the health care delivery team, qualified by education and experience to work in the administrative office, the examining room and the physician’s laboratory. Individuals in this unique position will be involved in many of the following skills:

General: project a professional manner and image, adhere to legal and ethical principles, use medical terminology effectively, and use effective and correct verbal and written communication.

Administrative: schedule, coordinate and monitor appointments, perform telephone and written communications, arrange hospital admissions, manage medical records, process insurance claim forms, manage office financial records, and maintain inventory.

Clinical: prepare patient for examination procedures and treatment, record medical histories, take vital signs, chart patient information, administer medications and injections, provide patient instruction and education, perform venipunctures, collect and prepare other specimens, perform electrocardiograms (ECG), sterilize instruments, and perform basic laboratory tests.

With additional education, the medical assisting graduate may perform limited radiography.

The Medical Assistant is a vital liaison between the doctor and patient and plays an important role in diagnosis and treatment. The many different roles assumed in this profession assure a fast moving and challenging career.

Progression in the Medical Assisting program is contingent upon achievement of a grade of “C” or above in each required course and maintenance of a 2.0 cumulative grade-point average or above (on a 4.0 scale). Clinical orientation and externship are “non-paid work assignments.” CPR requirements must be successfully completed prior to enrolling in the first clinical externship and must be kept current throughout the program.

Transportation to the physician’s offices/community agencies is the responsibility of each student.

According to the Commission on Accreditation of Allied Health Education Programs (CAAHEP), all accredited medical assisting program related courses must be taught by approved faculty and meet the requirements according to CAAHEP standards and guidelines.

The Medical Assisting programs at the colleges listed below are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahp.org) on the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 North, Suite 158
Clearwater, FL 33756,
727/210-2350
www.caahp.org

Bluegrass CTC (AAS and Diploma), Henderson CC (AAS), Jefferson CTC (Diploma), and Maysville CTC - Maysville & Rowan Campuses (Diploma).

**Associate in Applied Science**

**Medical Assisting - 5108017029**

*(Offered at BLC, GTW, HEC, HPC, JFC)*

**Required General Education:**

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
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<tr>
<td>MAT 105</td>
<td>Mathematics for Business OR</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
</tr>
<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16-20</strong></td>
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</table>
Additional Suggested General Education Courses (Not Required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>(3)</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>(3)</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
</tr>
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</table>

Support Classes

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Health Care Professionals OR</td>
<td>1</td>
</tr>
<tr>
<td>KHP 190</td>
<td>First Aid and Emergency Care</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>Digital Literacy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>7-8</td>
</tr>
</tbody>
</table>

NOTE: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAI 105</td>
<td>Introduction to Medical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>MAI 120</td>
<td>Medical Assisting Laboratory Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>MAI 140</td>
<td>Medical Assisting Clinical Procedures I</td>
<td>4</td>
</tr>
<tr>
<td>MAI 150</td>
<td>Medical Assisting Administrative Procedures I OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
</tr>
<tr>
<td>MAI 170</td>
<td>Dosage Calculations</td>
<td>2</td>
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<tr>
<td>MAI 200</td>
<td>Pathophysiology for the Medical Assistant</td>
<td>3</td>
</tr>
<tr>
<td>MAI 220</td>
<td>Medical Assisting Laboratory Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>MAI 230</td>
<td>Medical Insurance OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 104</td>
<td>Introduction to Medical Insurance</td>
<td>(3)</td>
</tr>
<tr>
<td>MAI 240</td>
<td>Medical Assisting Clinical Procedures II</td>
<td>4</td>
</tr>
<tr>
<td>MAI 250</td>
<td>Medical Assisting Administrative Procedures II OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 227</td>
<td>Medical Office Software</td>
<td>(3)</td>
</tr>
<tr>
<td>MAI 270</td>
<td>Pharmacology for the Medical Assistant</td>
<td>3</td>
</tr>
<tr>
<td>MAI 289</td>
<td>Medical Assisting Assessment Preparation</td>
<td>1-2</td>
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<tr>
<td>MAI 281</td>
<td>Medical Assisting Practicum</td>
<td>1</td>
</tr>
<tr>
<td>MAI 284</td>
<td>Medical Assisting Externship</td>
<td>2-3</td>
</tr>
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Elective List:

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<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>OST 100</td>
<td>Keyboarding</td>
<td>(1)</td>
</tr>
<tr>
<td>MAI 260</td>
<td>Medical Transcription</td>
<td>(3)</td>
</tr>
<tr>
<td>MAI 299</td>
<td>Selected Topics: Medical Assisting: (Topic)</td>
<td>(1-4)</td>
</tr>
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</table>

Diploma

Medical Assisting - 5108014020

(Offered at BLC, HEC, JFC, MYC, SEC, SMC)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
<td>(3)</td>
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Support Classes

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<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 120</td>
<td>Medical Terminology OR</td>
<td>(1)</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Health Care Professionals OR</td>
<td>1</td>
</tr>
<tr>
<td>KHP 190</td>
<td>First Aid and Emergency Care</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>Digital Literacy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
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</table>

NOTE: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>MAI 105</td>
<td>Introduction to Medical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>MAI 120</td>
<td>Medical Assisting Laboratory Techniques I</td>
<td>3</td>
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<td>MAI 140</td>
<td>Medical Assisting Clinical Procedures I</td>
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<td>MAI 150</td>
<td>Medical Assisting Administrative Procedures I OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
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<tr>
<td>MAI 170</td>
<td>Dosage Calculations</td>
<td>2</td>
</tr>
<tr>
<td>MAI 200</td>
<td>Pathophysiology for the Medical Assistant</td>
<td>3</td>
</tr>
<tr>
<td>MAI 220</td>
<td>Medical Assisting Laboratory Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>MAI 230</td>
<td>Medical Insurance OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 104</td>
<td>Introduction to Medical Insurance</td>
<td>(3)</td>
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<tr>
<td>MAI 240</td>
<td>Medical Assisting Clinical Procedures II</td>
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<td>Medical Assisting Administrative Procedures II OR</td>
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<td>MIT 227</td>
<td>Medical Office Software</td>
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<td>MAI 270</td>
<td>Pharmacology for the Medical Assistant</td>
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<tr>
<td>MAI 289</td>
<td>Medical Assisting Assessment Preparation</td>
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<tr>
<td>MAI 281</td>
<td>Medical Assisting Practicum</td>
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Elective Courses:

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<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 100</td>
<td>Keyboarding</td>
<td>(1)</td>
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<tr>
<td>MAI 260</td>
<td>Medical Transcription</td>
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<tr>
<td>MAI 299</td>
<td>Selected Topics: Medical Assisting: (Topic)</td>
<td>(1-4)</td>
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Certificates

Medical Office Insurance Billing and Coding - 5108013049

(Offered at BLC, HEC, JFC, MYC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tr>
<td>AHS 120</td>
<td>Medical Terminology OR</td>
<td>(1)</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
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<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
</tr>
<tr>
<td>MAI 150</td>
<td>Medical Assisting Administrative Procedures I OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
</tr>
<tr>
<td>MAI 230</td>
<td>Medical Insurance OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 227</td>
<td>Medical Office Procedures</td>
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<tr>
<td>MAI 281</td>
<td>Medical Assisting Practicum</td>
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Medical Office Administrative Assistant - 5108013069

(Offered at BLC, HEC, JFC, MYC, SEC, SMC)

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<tr>
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<td>3</td>
</tr>
<tr>
<td>AHS 120</td>
<td>Medical Terminology OR</td>
<td>(1)</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
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</tr>
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<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
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<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
</tr>
<tr>
<td>MAI 105</td>
<td>Introduction to Medical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>MAI 150</td>
<td>Medical Assisting Administrative Procedures I OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
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<tr>
<td>MAI 250</td>
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<tr>
<td>MIT 227</td>
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<td></td>
<td>Digital Literacy</td>
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<td></td>
<td>Subtotal</td>
<td>38-40</td>
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<tr>
<td></td>
<td>Total Credits</td>
<td>48-50</td>
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</table>
Electrocardiograph Technician - 5108013149
(Offered at JFC, MYC)
AHS 115 Medical Terminology OR ................................................. 3
AHS 120 Medical Terminology OR ................................................. (1)
CLA 131 Medical Terminology from Greek and Latin OR .............. (3)
MIT 103 Medical Office Terminology ............................................. (3)
BIO 135 Basic Anatomy and Physiology with Laboratory OR .... 4
BIO 137 Human Anatomy & Physiology I AND ............................ (4)
BIO 139 Human Anatomy & Physiology II .................................... (4)
CPR 100 CPR for Healthcare Professionals OR ............................ 1
KHP 190 First Aid and Emergency Care .......................................... (2)
MAI 140 Medical Assisting Clinical Procedures I OR ................. 4
MAI 240 Medical Assisting Clinical Procedures II ............................ (4)
MAI 281 Medical Assisting Practicum ............................................ 1
Total Credits 11-18

NOTE: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

Medical Office Limited Radiography - 5108013139
(Offered at JFC)
MOR 100 Medical Office Limited Radiography ............................... 6
MOR 115 Medical Office Limited Radiography Lab ........................ 3
MOR 117 Advanced Medical Office Limited Radiography ............ 6
MOR 119 Advanced Medical Office Limited Radiography Clinical .... 3
Total Credits 18

Phlebotomist - 5108013109
(Offered at ASC, BLC, GTW, HEC, MYC, SEC)
PHB 100 Phlebotomy ................................................................. 6
PHB 155 Phlebotomy Clinical ....................................................... 2-3
Total Credits 8-9
OR
MAI 120 Medical Assisting Laboratory Techniques I .................... 3
PHB 155 Phlebotomy Clinical ....................................................... 2-3
Total Credits 5-6
OR
MAI 120 Medical Assisting Laboratory Techniques I .................... 3
PHB 152 Phlebotomy: Clinical Experience .................................... 1
Total Credits 4

NOTE: See http://www.phlebotomy.com/CertAgencies.html for a directory of phlebotomy certification agencies and examination requirements.
*A competency level of successful completion of MAT 065, RDG 030 and ENC 091 must be attained for any certificate.

Medical Laboratory Technician

The Medical Laboratory Technician (MLT) program provides students with the opportunity to acquire the necessary skills to work under the supervision of a registered clinical scientist or pathologist in a clinical laboratory, hospital, or other health agency.

The MLT student learns to collect specimens from the patient and perform laboratory tests in all areas of the clinical laboratory to include immunohematology, clinical chemistry, hematology, microbiology, serology and urinalysis.

Students enrolled in the MLT program must achieve a minimum grade of “C” in each of the medical laboratory technician courses.

Upon completion of the program, the graduate is eligible for the national certification examination as a medical laboratory technician.

The following Associate Degree Medical Laboratory Technician Programs are fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Address and telephone number of NAACLS are: NAACLS, 5600 North River Road, Suite 720, Rosemont, Illinois 60018. Telephone: 773.714.8880 Fax: 773.714.8886 (Website): http://www.naacls.org (E-mail): info@naacls.org

Henderson Community College, Madisonville Community College, Somerset Community College, Southeast Kentucky Community and Technical College, West Kentucky Community and Technical College, and Jefferson Community and Technical College (Accreditation Pending).

All program graduates take the national board exam, called the Board of Certification of the American Society of Clinical Pathology, after having met their academic and laboratory educational requirements. If successful, graduates may then use the initials “MLT (ASCP)” indicating proficiency in laboratory medicine.

Associate in Applied Science

Medical Laboratory Technician - 5110047049
(Offered at HEC, JFC, MDC, MYC, SEC, SMC, WKC)

General Education Courses:
ENG 101 Writing I ................................................................. 3
MAT 110 Applied Mathematics OR ............................................ 3
Higher Quantitative Reasoning course ...................................... (3)
CHE 130 Introductory General and Biological Chemistry OR .... 4
Higher Chemistry course ....................................................... (3)
PSY 110 General Psychology .................................................... 3
Heritage/Humanities ............................................................. 3
COM 181 Basic Public Speaking OR .......................................... 3
COM 252 Introduction to Interpersonal Communication ............ (3)
Subtotal 18-19

Core Courses:
BIO 135 Basic Anatomy & Physiology with Laboratory* ............ 4
MLT 112 Urinalysis ................................................................. 2
MLT 115 Serology ................................................................. 2
MLT 215 Hematology I AND .................................................. 4
MLT 216 Hematology II OR ................................................... 3
MLT 217 Fundamentals of Hematology AND ......................... (3)
MLT 218 Clinical Hematology .................................................. (4)
MLT 225 Immunohematology I AND ....................................... 2
MLT 226 Immunohematology II OR ....................................... 2
MLT 227 Immunohematology .................................................. (4)
MLT 278 Practicum ................................................................. 4
Pathway 1 .......................................................................... 2
Pathway 2 .......................................................................... 5
Subtotal 23-27

* BIO 135 & BIO 139 may be substituted for BIO 135

Pathway I – 511004703
(Offered at SMC, SEC, HEC)

BIO 225 Medical Microbiology .................................................. 4
MLT 101 Introduction to the Clinical Laboratory AND .................. 3
PHB 151 Phlebotomy for the Health Care Worker AND .............. 1
PHB 152 Phlebotomy: Clinical Experience .................................. 1
MLT 205 Clinical Microbiology I AND ..................................... 3
MLT 206 Clinical Microbiology II .............................................. 2
MLT 233 Clinical Chemistry I AND ......................................... 3
MLT 234 Clinical Chemistry II .................................................. 2
MLT 279 Practicum II ............................................................. 4
Subtotal 23

Total Credit Hours – Pathway I 64-68
### Pathway II – 511004704
*(Offered at JFC, MDC, MYC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Introduction to Clinical Diagnostic Microbiology</td>
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<tr>
<td>PHB 170</td>
<td>Applied Phlebotomy AND</td>
<td>3</td>
</tr>
<tr>
<td>PHB 152</td>
<td>Phlebotomy Clinical Experience</td>
<td>1</td>
</tr>
<tr>
<td>MLT 208</td>
<td>Clinical Diagnostic Microbiology LAND</td>
<td>3</td>
</tr>
<tr>
<td>MLT 209</td>
<td>Clinical Diagnostic Microbiology II</td>
<td>2</td>
</tr>
<tr>
<td>MLT 247</td>
<td>Introduction to Clinical Chemistry AND</td>
<td>3</td>
</tr>
<tr>
<td>MLT 248</td>
<td>Advanced Clinical Chemistry</td>
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<tr>
<td>MLT 279</td>
<td>Practicum II</td>
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</table>

**Subtotal** 22

**Total Credit Hours – Pathway II** 64-68

### Diploma

**Certified Medical Laboratory Assistant – 5110044029**
*(Offered at MDC)*

#### General Education Courses:

- **Course from Area I:**
  - ENG 101 Writing I ............................................. 3

- **Course from Area II:**
  - MAT 110 Applied Mathematics OR ................................ 3
  - Higher Quantitative Reasoning course...................... (3)

**Subtotal** 6

#### Support Courses:

- Digital Literacy .............................................. 0-3
- BIO 135 Basic Anatomy & Physiology with Laboratory* .................. 4
- BIO 225 Medical Microbiology OR .................................. 4
- MLT 207 Introduction to Clinical Diagnostic Microbiology .......... (2)

**Subtotal** 6-11

*BIO 137 & BIO 139 may be substituted for BIO 135.

#### Technical Courses:

- MLT 101 Introduction to the Clinical Laboratory AND .................. 3
- PHB 151 Phlebotomy for the Health Care Worker AND .................. 1
- PHB 152 Phlebotomy: Clinical Experience AND .......................... 1
- MLT 225 Immunohematology I OR ...................................... 2
- PHB 170 Applied Phlebotomy AND .................................... (3)
- PHB 152 Phlebotomy: Clinical Experience .............................. (1)
- MLT 112 Urinalysis ................................................ 2
- MLT 115 Serology ..................................................... 2
- MLT 217 Fundamentals of Hematology OR ................................ 3
- MLT 215 Hematology I .................................................. (4)
- MLT 247 Introduction to Clinical Chemistry OR ..................... 3
- MLT 233 Clinical Chemistry I ......................................... (3)
- MLT 275 Clinical Experience ......................................... 1
- MLT 278 Practicum I .................................................. 4
- OST 217 Medical Office Procedures OR ................................ 3
- MAI 150 Medical Assisting Administrative Procedures I ............... (3)

**Subtotal** 22-26

**Total** 34-43

### Certificates

**Physician’s Office Laboratory – 5110043029**
*(Offered at HEC, HZC, JFC, MDC, SEC, WKC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
</table>
| PHB 151     | Phlebotomy AND ........................................... 1
| PHB 152     | Phlebotomy Clinical Experience AND .................... 1
| MLT 101     | Introduction to the Clinical Laboratory OR .......... 3
| PHB 170     | Applied Phlebotomy AND ................................... (3)
| PHB 152     | Phlebotomy Clinical Experience ........................... (1)
| MLT 112     | Urinalysis .................................................. 2
| MLT 115     | Serology ..................................................... 2

**Total** 8-9

### Phlebotomist - 5110043019
*(Offered at HZC, JFC, MDC, MYC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| PHB 100     | Phlebotomy ................................................ 6
| PHB 155     | Phlebotomy Clinical ...................................... 2-3

**Total** 8-9

### Phlebotomy for the Health Care Worker - 5110043039
*(Offered at HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| PHB 151     | Phlebotomy AND ........................................... 1
| PHB 152     | Phlebotomy: Clinical Experience AND .................. 1
| PHB 155     | Phlebotomy Clinical AND .................................. 2
| MLT 101     | Introduction to the Clinical Laboratory OR .......... 3
| PHB 170     | Applied Phlebotomy AND ................................... (3)
| PHB 152     | Phlebotomy: Clinical Experience ........................... (1)

**Total** 4-5

### Advanced Phlebotomy Technician - 5110043049
*(Offered at HZC, SEC,)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| PHB 151     | Phlebotomy AND ........................................... 1
| PHB 152     | Phlebotomy: Clinical Experience AND .................. 1
| PHB 155     | Phlebotomy Clinical AND .................................. 2
| MLT 101     | Introduction to the Clinical Laboratory OR .......... 3
| PHB 152     | Phlebotomy: Clinical Experience ........................... (3)
| PHB 155     | Phlebotomy Clinical AND .................................. (2)

**Total** 6-8

### Mining Technology

The Mining Technology program will focus on the knowledge needed to succeed in the coal mining industry. Emphasis will be given to the statutory rights and safety procedures in all of the offerings including: the self-rescuer device, transportation controls, communication controls, mining conditions, mining methods, mining cycle, escapeways, emergency procedures, roof control, ground control, ventilation, health hazards, clean-up and rock dusting, health and safety aspects of assigned task, mine gases, explosives, compressed cylinders, electrical hazards, first aid, operation of equipment, electrical knowledge and troubleshooting, repairing electrical and fluid power equipment, maintaining the equipment, fabricating, supervising, and the engineering aspects of mining.

### Associate in Applied Science

**Mining Technology - 1509017019**
*(Offered at BSC, MDC)*

#### General Education:

- ENG 101 Writing I .............................................. 3
- Quantitative Reasoning course* ............................... 3
- Social/Behavioral Sciences course ............................ 3
- GLY 101 Physical Geology AND .................................. 3
- GLY 111 Laboratory for Physical Geology OR ............... 1
- Natural Sciences ................................................. (4)
- Heritage/Humanities ............................................. 3

**Subtotal** 16

*Note: MAT 150 is required for Engineering Operations Track and Supervisors Track.*
**Technical Core:**

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<td>MNG 160</td>
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<td>MNG 170</td>
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<tr>
<td>MNG 150</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>3</td>
</tr>
<tr>
<td>EFM 100</td>
<td>3</td>
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<tr>
<td>BAS 120</td>
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</tr>
<tr>
<td>MNG 274</td>
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<tr>
<td>MNG 180</td>
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**Total Credits 26**

**Operators Track – 150901702**

(Offers at BSC, MDC)

<table>
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<tr>
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<tbody>
<tr>
<td>IMT 150</td>
<td>3</td>
</tr>
<tr>
<td>IMT 151</td>
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<tr>
<td>MNG 161</td>
<td>1-3</td>
</tr>
<tr>
<td>MNG 171</td>
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**Total Credits 18-24**

**Electricians Track - 150901703**

(Offers at BSC, MDC)

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<tr>
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<td>IMT 110</td>
<td>3</td>
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<tr>
<td>IMT 111</td>
<td>2</td>
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<td>IMT 150</td>
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</tr>
<tr>
<td>IMT 151</td>
<td>2</td>
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<tr>
<td>ELT 250</td>
<td>4</td>
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**Total Credits 20**

**Supervisors Track - 150901704**

(Offers at BSC, MDC)

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<td>MNG 286</td>
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<tr>
<td>BAS 283</td>
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<td>BAS 288</td>
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**Total Credits 20**

**Mechanics Track - 150901705**

(Offers at BSC, MDC)

<table>
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<td>FPX 101</td>
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<tr>
<td>ELT 122</td>
<td>2</td>
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<tr>
<td>IMT 150</td>
<td>3</td>
</tr>
<tr>
<td>IMT 151</td>
<td>2</td>
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**Total Credits 62**

**Engineering Operations Track - 150901701**

(Offers at BSC, MDC)

<table>
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<tbody>
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<td>MAT 155</td>
<td>3</td>
</tr>
<tr>
<td>MNG 286</td>
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<tr>
<td>Technical Electives*</td>
<td>12</td>
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</table>

**Total Credits 19-21**

*Technical Electives:*

Any AIT, EET, ELT, IMT, CIT, ISM, ENV, SMT, CAD, ICT, MNG, MFG or any other course as approved by the program coordinator.

**Diploma**

**Underground Mining Repair Technology - 1509014019**

**General Education:**

**Area 1 =**
- Written Communication, Oral Communications, or Heritage/Humanities

**Area 2 =**
- Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning

**Technical Electives:**

- Blueprint Reading Course
- Digital Literacy course or demonstrated competency
- Personal Financial Management OR
- Personal Finance
- Welding for Maintenance
- Welding for Maintenance Lab
- Programmable Logic Controllers
- Applied Fluid Power OR
- Fluid Power AND
- Fluid Power Lab
- Mining Electricity I OR
- Mining Electricity I Lab OR
- Industrial Maintenance Electrical Principles AND
- Industrial Maintenance Electrical Principles Lab (2)
- Mining Electricity I
- Mining Electricity I Lab
- Roof Control and Ventilation
- First Aid & Emergency Care
- Mine Safety
- Technical Electives*

**Total Credits 50-60**

**Certificates**

**Underground Operator 1509013129**

(Offers at BSC, MDC, SEC)

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MNG 160</td>
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<td>MNG 161</td>
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<tr>
<td>EFM 100</td>
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<tr>
<td>BAS 120</td>
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<tr>
<td>WPP 200</td>
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**Total Credits 7-9**
### Underground Mechanic/Electrician - 1509013069

*(Offered at MDC, SEC)*

<table>
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<tbody>
<tr>
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<td>Mining Electricity I</td>
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<tr>
<td>MNG 125</td>
<td>Mining Electricity I Lab</td>
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<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
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</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELT 244</td>
<td>Electrical Machinery and Controls OR</td>
<td>4</td>
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<tr>
<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
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<td>IMT 111</td>
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<tr>
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<tr>
<td>FPX 100</td>
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<td>IMT 150</td>
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**Total Credits: 28-35**

### Surface Operator - 1509013139

*(Offered at BSC, MDC, SEC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MNG 170</td>
<td>Elements of Surface Mining</td>
<td>2</td>
</tr>
<tr>
<td>MNG 171</td>
<td>Elements of Surface Mining Lab</td>
<td>1-3</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance OR</td>
<td>(3)</td>
</tr>
<tr>
<td>WPP 200</td>
<td>Workplace Principles</td>
<td>(3)</td>
</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems I OR</td>
<td>(3)</td>
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</table>

**Total Credits: 9-11**

### Surface Supervisor - 1509013099

*(Offered at BSC, MDC, SEC)*

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<thead>
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<tbody>
<tr>
<td>MNG 150</td>
<td>Mining Laws</td>
<td>3</td>
</tr>
<tr>
<td>MNG 190</td>
<td>Mine Emergency Technician OR</td>
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</tr>
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<td>KHP 190</td>
<td>First Aid &amp; Emergency Care</td>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
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**Total Credits: 13-18**

### Surface Field Mechanic - 1509013109

*(Offered at BSC)*

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<tbody>
<tr>
<td>ELT 122</td>
<td>Mechanical Power Transmission Systems</td>
<td>3</td>
</tr>
<tr>
<td>ELT 265</td>
<td>Applied Fluid Power OR</td>
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</tr>
<tr>
<td>FPX 100</td>
<td>Fluid Power AND</td>
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<td>FPX 101</td>
<td>Fluid Power Lab</td>
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<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
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<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
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**Total Credits: 11-13**

### Motorcycle Technology

The Motorcycle Technology Program prepares students for careers in a motorcycle dealership or private business. A core curriculum provides students with a foundation of knowledge applicable to the motorcycle industry.

**Associate in Applied Science**

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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing</td>
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<tr>
<td>MAT 110</td>
<td>Applied Math/Heritage/ Humanities Social/Behavioral Sciences Natural Sciences Oral Communications</td>
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**Subtotal: 18**
Technical Core

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<tr>
<td>MOT 100</td>
<td>Introduction to Motorcycles</td>
<td>3</td>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MOT 120</td>
<td>Motorcycle Sales and Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MOT 130</td>
<td>Shop Management</td>
<td>2</td>
</tr>
<tr>
<td>MOT 134</td>
<td>Service Requirements</td>
<td>2</td>
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<tr>
<td>MOT 244</td>
<td>Parts Management</td>
<td>2</td>
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<tr>
<td>MOT 260</td>
<td>Capstone</td>
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<td>COE 199</td>
<td>Cooperative Education or subject (COED 198)</td>
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Technical Courses

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<tr>
<td>MOT 134</td>
<td>Service Requirements</td>
<td>2</td>
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<tr>
<td>MOT 244</td>
<td>Parts Management</td>
<td>2</td>
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<tr>
<td>MOT 156</td>
<td>Frames and Suspensions</td>
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<td>MOT 220</td>
<td>Diagnostics and Troubleshooting</td>
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<td>MOT 234</td>
<td>Performance Machine and Welding</td>
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Retail Track - 470611702

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<td>Small Business Management</td>
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<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
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Total Credits (Retail Track) 61-64

Retail Technician II - 4706113029

Technical Courses

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<th>Course Title</th>
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<tbody>
<tr>
<td>MOT 100</td>
<td>Introduction to Motorcycles</td>
<td>3</td>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
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<tr>
<td>MOT 120</td>
<td>Motorcycle Sales and Marketing</td>
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<td>MOT 130</td>
<td>Shop Management</td>
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<td>MOT 134</td>
<td>Service Requirements</td>
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<tr>
<td>MOT 142</td>
<td>Basic Engines and Drive Systems</td>
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Total 25

Repair Technician I - 4706113019

Technical Courses

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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MOT 100</td>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MOT 120</td>
<td>Motorcycle Sales and Marketing</td>
<td>3</td>
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<tr>
<td>MOT 130</td>
<td>Shop Management</td>
<td>2</td>
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<tr>
<td>MOT 134</td>
<td>Service Requirements</td>
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<tr>
<td>MOT 142</td>
<td>Basic Engines and Drive Systems</td>
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Total 15

Retail Technician I - 4706113039

Technical Courses

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<tr>
<td>MOT 100</td>
<td>Introduction to Motorcycles</td>
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</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MOT 120</td>
<td>Motorcycle Sales and Marketing</td>
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</tr>
<tr>
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Approved Technical Electives Repair Track:

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIS 130</td>
<td>Microcomputer Application</td>
<td>3</td>
</tr>
<tr>
<td>CRT 100</td>
<td>Introduction to Collision Repair</td>
<td>2</td>
</tr>
<tr>
<td>CMM 110</td>
<td>Fundamentals of Machine Tools A</td>
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Note: Other Electives may be approved by the Program Coordinator

Approved Technical Electives Retail Track:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIS 130</td>
<td>Microcomputer Application</td>
<td>3</td>
</tr>
<tr>
<td>IT 132</td>
<td>Web Page Development</td>
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<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
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<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
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<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>BAS 291</td>
<td>Retail Management</td>
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Total Credits 9

Multi-Skilled Systems Technician

Introduces the systems approach to the operation of electrical components and the relationship of voltage, current, resistance, and power in industrial systems. Provides an overview of alternating and direct current fundamentals. Introduces the systems approach to the operation of mechanical components and the relationship of their application in industrial systems. Provides an overview of rotating machinery fundamentals. Introduces the systems approach to the operation of hydraulic/pneumatic components and the relationship of their application in industrial systems. Provides an overview of digital fundamentals.

Certificate

Multi-Skilled Technician - 4703033229

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MST 150</td>
<td>Multi-Skilled Systems Technician</td>
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Total Credits 9
Natural Gas Technology

Construction and Maintenance Technician
This program prepares students for performing job tasks in five functional areas of pipeline construction and maintenance: work related safety, installing and inspecting gas distribution piping, maintenance on gas pipelines, placing pipelines into service and installing and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are "operator qualified" on related covered tasks according to 49CFR, Part 192, Subpart N.

Gas Service Technician
This program prepares students for job related tasks in six functional areas of natural gas service; work related safety, installing and maintaining customer services lines and meter and regulator sets, installing gas operated equipment, installing and inspecting gas distribution piping and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are "operator qualified" on related covered tasks according to 49CFR, Part 192, Subpart N.

Leakage and Corrosion Control Technician
This program prepares students for performing job tasks in four functional areas of natural gas leakage and corrosion control; work related safety, investigating and controlling gas leaks, installing cathodic protection systems, and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are "operator qualified" on related covered tasks according to 49CFR, Part 192, Subpart N.

Measurement and Regulation Technician
This program prepares students for performing job tasks in four functional areas of natural gas measurement and regulation; work related safety, basic gas laws, maintaining gas metering systems, maintaining gas regulation systems, and maintaining recording instruments. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level.

Certificates

Leakage and Corrosion Control Technician - 1509033020

<table>
<thead>
<tr>
<th>NGT</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>100</td>
<td>Technologies Basic to the Delivery of Natural Fuel Gases</td>
<td>3</td>
</tr>
<tr>
<td>110</td>
<td>Preventing/Controlling Worksite Incidents</td>
<td>3</td>
</tr>
<tr>
<td>125</td>
<td>Maintaining Compliance with the National Fuel Gas Code</td>
<td>3</td>
</tr>
<tr>
<td>140</td>
<td>Pipeline Construction Safety</td>
<td>1</td>
</tr>
<tr>
<td>150</td>
<td>Performing Patrol &amp; Leakage Surveys on Natural Gas Pipeline Facilities</td>
<td>3</td>
</tr>
<tr>
<td>205</td>
<td>Identifying Practices &amp; Procedures Used to Control and Monitor Cathodic Protection Systems</td>
<td>2</td>
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<tr>
<td>210</td>
<td>Troubleshooting Cathodic Protection Rectifiers</td>
<td>3</td>
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Gas Service Technician - 1509033040

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<th>Course Title</th>
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<tbody>
<tr>
<td>100</td>
<td>Technologies Basic to the Delivery of Natural Fuel Gases</td>
<td>3</td>
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<tr>
<td>110</td>
<td>Preventing/Controlling Worksite Incidents</td>
<td>3</td>
</tr>
<tr>
<td>125</td>
<td>Maintaining Compliance with the National Fuel Gas Code</td>
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</tr>
<tr>
<td>150</td>
<td>Performing Patrol &amp; Leakage Surveys on Natural Gas Pipeline Facilities</td>
<td>3</td>
</tr>
<tr>
<td>160</td>
<td>Installing &amp; Maintaining Customer Service Lines and Meter and Regulator Sets</td>
<td>3</td>
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<tr>
<td>170</td>
<td>Installing Gas Operated Equipment</td>
<td>3</td>
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<tr>
<td>180</td>
<td>Installing and Inspecting Gas Distribution Piping</td>
<td>3</td>
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<td>230</td>
<td>Inspecting &amp; Maintaining Gas Metering Systems</td>
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Measurement and Regulation Technician - 1509033030

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<th>Course Title</th>
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<td>Technologies Basic to the Delivery of Natural Fuel Gases</td>
<td>3</td>
</tr>
<tr>
<td>110</td>
<td>Preventing/Controlling Worksite Incidents</td>
<td>3</td>
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<tr>
<td>130</td>
<td>Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192</td>
<td>1</td>
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<tr>
<td>140</td>
<td>Pipeline Construction Safety</td>
<td>3</td>
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<tr>
<td>150</td>
<td>Performing Patrol &amp; Leakage Surveys on Natural Gas Pipeline Facilities</td>
<td>3</td>
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<tr>
<td>205</td>
<td>Identifying Practices &amp; Procedures Used to Control and Monitor Cathodic Protection Systems</td>
<td>2</td>
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<tr>
<td>220</td>
<td>Identifying Principles &amp; Performing Operations Basic to Gas Measurement</td>
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<tr>
<td>230</td>
<td>Inspecting &amp; Maintaining Gas Metering Systems</td>
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<td>Operating &amp; Maintaining Gas Pressure Regulating Systems</td>
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Construction and Maintenance Technician - 1509033010

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<td>Technologies Basic to the Delivery of Natural Fuel Gases</td>
<td>3</td>
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<tr>
<td>110</td>
<td>Preventing/Controlling Worksite Incidents</td>
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<td>130</td>
<td>Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192</td>
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<td>140</td>
<td>Pipeline Construction Safety</td>
<td>3</td>
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<tr>
<td>180</td>
<td>Installing &amp; Inspecting Gas Distribution Piping</td>
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<td>Performing Maintenance on Gas Pipelines</td>
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<td>Placing Gas Pipelines into Service</td>
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Nuclear Medicine and Molecular Imaging Technology

The Nuclear Medicine and Molecular Imaging Technology (NMMIT) program prepares the individual to work in the field of Nuclear Medicine and Molecular Imaging. Nuclear Medicine and Molecular Imaging is the medical specialty that utilizes the nuclear properties of radioactive and stable nuclides to make diagnostic evaluation of the anatomic or physiologic conditions of the body and to provide therapy with unsealed radioactive materials. The skills of the nuclear medicine technologist complement those of the nuclear medicine physician and other professionals in the field. Nuclear medicine technologists have responsibilities in the following areas: (a) patient care and monitoring, (b) technical skills related to radiation safety, radiopharmacy, clinical instrumentation, diagnostic and therapeutic procedures (including hybrid imaging and emerging technologies), quality control, and computers, and (c) administrative functions related to supplies and equipment, documentation of operations related to disposition of radioactive materials, quality control data, and patient records.
The NMMIT program is a selective admission program. A student must earn a grade of C or better in the prerequisite and concurrent mathematics and science courses to be admitted to and to remain enrolled in the program. Also, a student must earn a grade of C or better in each of the NMMIT courses to be retained in the program. After graduation from the program, the individual is eligible to write either the Nuclear Medicine Technology Certification Board (NMTCB) or the American Registry of Radiologic Technologists (ARRT) nuclear medicine technology examination to earn credentials. Please see the guidelines for the selective admission requirements to the Nuclear Medicine and Molecular Imaging Technology program.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first NMI course.

Note: Hours Exception (71-73 for the A.A.S.) approved by the KCTCS Board of Regents in December 2010

**Associate in Applied Science**

**Nuclear Medicine and Molecular Imaging Technology - 5109057039**

*(Offered at BLC)*

**General Education:**

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<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry</td>
<td>3</td>
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<tr>
<td>CHE 150</td>
<td>Introduction to Organic and Biological Chemistry</td>
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<td>CHE 155</td>
<td>Introduction to Organic and Biological Chemistry Lab</td>
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<td>BRO 137</td>
<td>Human Anatomy &amp; Physiology I</td>
<td>4</td>
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<td>Human Anatomy &amp; Physiology II</td>
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<tr>
<td>PHY 171</td>
<td>Applied Physics OR</td>
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<tr>
<td>PHY 172</td>
<td>Physics for Health Sciences</td>
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<tr>
<td>Social/Behavioral Sciences</td>
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<td>Heritage/Humanities</td>
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<tr>
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<td>Clinical Procedures I</td>
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<tr>
<td>NMI 141</td>
<td>Physics and Instrumentation I</td>
<td>2</td>
</tr>
<tr>
<td>NMI 142</td>
<td>Radiation Biology/Protection</td>
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</tr>
<tr>
<td>NMI 150</td>
<td>Clinic I</td>
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<tr>
<td>NMI 151</td>
<td>Clinical Procedures II</td>
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<tr>
<td>NMI 160</td>
<td>Clinic II</td>
<td>2</td>
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<tr>
<td>NMI 170</td>
<td>Clinic III</td>
<td>2</td>
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<tr>
<td>NMI 230</td>
<td>Radiopharmacy</td>
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</tr>
<tr>
<td>NMI 220</td>
<td>Clinic IV</td>
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<tr>
<td>NMI 240</td>
<td>Clinical Procedures III</td>
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<tr>
<td>NMI 260</td>
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<tr>
<td>NMI 270</td>
<td>Clinic V</td>
<td>4</td>
</tr>
<tr>
<td>IMG 230</td>
<td>Sectional Anatomy for Advanced Imaging</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
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</tr>
</tbody>
</table>

**Total Credits** | **71-73**

**Nursing**

The Associate Degree Nursing program prepares graduates to use their skill and knowledge to fulfill the role of the nurse: enhance human flourishing, demonstrate sound nursing judgment, continually develop professional identity, and possess a spirit of inquiry to improve the quality of patient care. Encompassed within these roles are the core components of context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. These core components are introduced, developed and built upon through the curriculum. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The Associate Degree Nursing curriculum is organized around a clearly defined conceptual framework and combines general education and nursing courses. The nursing courses correlate classroom and clinical instruction in a variety of community agencies.

Acceptance into the Associate Degree Nursing program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements prior to March 1 for admission to a fall NSG 101 course (July 1 for admission to a spring NSG 101 course).

Progression in the Associate Degree Nursing program is contingent upon achievement of a grade of “C” or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, and documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

*Transportation to the community agencies is the responsibility of each student.

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the NCLEX-RN Exam if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

The following Associate Degree Nursing programs are accredited by the Accreditation Commission for Education in Nursing 3343 Peachtree Rd, NE, Suite 850, Atlanta, GA 30326, www.acenursing.org, telephone: (404) 975-5000: Ashland Community and Technical College, Bluegrass Community and Technical College, Elizabethtown Community and Technical College, Henderson Community College, Hopkinsville Community College, Jefferson Community and Technical College, Madisonville Community College, Somerset Community College, Southeast Kentucky Community and Technical College, West Kentucky Community and Technical College.
Associate in Applied Science

Nursing - 5138017009
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MYC, OWC, SEC, SMC, WKC)

General Education:

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<th>Course</th>
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<tbody>
<tr>
<td>BIO 137</td>
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<td>BIO 225</td>
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<td>PSY 110</td>
<td>3</td>
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<td>PSY 223</td>
<td>3</td>
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Nursing Modular Pathway - 513801704
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, MYC, OWC, SEC, SMC, WKC)

Technical Courses:

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<tr>
<th>Course</th>
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<td>NSG 211</td>
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<tr>
<td>NSG 230</td>
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Subtotal 33

Nursing Standard Pathway - 513801705
(Offered at JFC)

Technical Courses:

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<th>Credits</th>
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<tbody>
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<td>NSG 206</td>
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<td>NSG 216</td>
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<td>NSG 226</td>
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Subtotal 38

Total Credits 71

**Taken by Licensed Practical Nurses who meet specific program requirements

***Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.

NOTE: CPR (BLS for Healthcare Providers) requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, and of computer/digital literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Nursing Assistant – Advanced

Provides knowledge and skills for nurse aides to assume the role and responsibilities required in a variety of health care settings.

Certificate
Advanced Nursing Assistant - 5139023019
(Offered at BSC, ELC, HPC, MYC, OWC, WKC)
Available Completely Online

<table>
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<tr>
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<td>NAA 100</td>
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<td>AHS 109</td>
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<tr>
<td>ENG 101</td>
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<td>TEC 200</td>
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Total Credits 16-20

Nursing – Academic/Career Mobility Program

The Academic/Career Mobility Program provides a seamless educational option in nursing with two exit points allowing students to choose a career as an LPN or RN. The program is implemented in a shared framework which prepares graduates to use their skill and knowledge to fulfill the role of the nurse: enhance human flourishing, demonstrate sound nursing judgment, continually develop professional identity, and possess a spirit of inquiry to improve the quality of patient care. Encompassed within these roles are the core components of context and environment, knowledge and science, person/professional development, quality and safety, relationship-centered care, and teamwork. These core components are introduced, developed, and built upon throughout the curriculum; however, distinct parameters have been established that support the PN and RN scopes of nursing practice. The curriculum is structured around a clearly defined organizing framework and provides the foundation for a competency-based approach to nursing education through the utilization of interactive and student-focused learning strategies. Content and performance-based outcomes for the nursing courses are selected, developed, and leveled from simple to complex. Students who successfully complete the first year will receive a diploma qualifying them to apply for licensure as practical nurses. Following successful completion of the second year, students will receive the Associate in Applied Science Degree in Nursing qualifying them to apply for licensure as registered nurses.

Acceptance into the program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Licensed practical nurses who graduated within one year of admission to the program are required to successfully complete at least one full year within the past three years and hold a current unrestricted license for practical nursing will be admitted to the associate degree level.

Proof of active status on the Kentucky Medicaid Nurse Aide Registry or its equivalent is required prior to enrolling in the first nursing course.
CPR certificate for Health Care Providers/Professional Rescuer must be obtained prior to enrolling in the first nursing course and certification must be kept current throughout the program. Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Progression in the nursing program is contingent upon achievement of a grade of “C” or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the National Council Licensure Examination for Registered Nurses (NCLEX Exam) if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2010.

Associate in Applied Science

Academic/Career Mobility Program in Nursing - 5138017049

(Offered at SKY)

General Education Courses:

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<tr>
<th>Course</th>
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<tbody>
<tr>
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<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 227</td>
<td>Principles of Microbiology with Laboratory</td>
<td>(5)</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>PSY 223</td>
<td>Developmental Psychology</td>
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<td></td>
<td>Written Communication Courses</td>
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<td></td>
<td>Heritage/Humanities</td>
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General Education Total

33-34

Technical Courses:

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<td>NRS 102</td>
<td>Nursing Care II OR</td>
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<td>NRS 200</td>
<td>**ILPN to ADN Transition</td>
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<tr>
<td>NRS 203</td>
<td>Nursing Care III</td>
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<td>NRS 204</td>
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</table>

Subtotal

38

Total CREDITS

71-72

**Taken only by Licensed Practical Nurses who have been admitted to the program and have and have met the pre-requisites.

Note: Documentation of computer/digital literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Proof of active status on the Kentucky Medicaid Nurse Aide Registry or its equivalent is required prior to enrolling in the first nursing course. CPR certificate for Health Care Providers/Professional Rescuer must be obtained prior to enrolling in the first nursing course and certification must be kept current throughout the program.

Diploma

Academic/Career Mobility Program in Nursing – Practical Nursing - 5139014009

(Offers at SKY)

General Education Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I</td>
<td>4</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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<td>PSY 223</td>
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<td>Oral Communications</td>
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General Education Subtotal

23

Technical Courses

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<tr>
<th>Course</th>
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<tr>
<td>NRS 102</td>
<td>Nursing Care II</td>
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Subtotal

19

Total CREDITS

42

Note: Documentation of computer/digital literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Proof of active status on the Kentucky Medicaid Nurse Aide Registry or its equivalent is required prior to enrolling in the first nursing course. CPR certificate for Health Care Providers/Professional Rescuer must be obtained prior to enrolling in the first nursing course and certification must be kept current throughout the program.

Suggested Electives:

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<td>NRS 100</td>
<td>Enhancing Nursing Student Success</td>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>(3)</td>
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<tr>
<td>NSG 126</td>
<td>Pharmacology in Nursing</td>
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</table>

Nursing - Integrated Nursing

The Integrated Nursing Program provides a seamless educational pathway in nursing which allows students to choose multiple career options. The Integrated Nursing Program is designed to deliver nursing education to a cohort group of students with the opportunity to complete the Practical Nursing (PN) or Associate Degree Nursing level. The curriculum is structured around a clearly defined organizing framework and provides the foundation for a competency-based approach to nursing education through the utilization of interactive and student-focused learning strategies. Content and performance-based outcomes for the nursing courses are selected, developed, and leveled from simple to complex. Classroom instruction in theory and basic nursing skills is provided in various delivery methods. Under the guidance of program faculty, students gain valuable experience in the care of patients across the lifespan in a variety of healthcare settings and/or community agencies including hospitals, long-term care facilities, clinics and child care centers.

After two and one-half semesters the student has the option to exit as a PN by enrolling in the PN exit course. This option prepares graduates to function within the legal scope of practice under the supervision of a registered nurse or physician. The practical nursing level focuses on the maintenance of health and prevention of illness, the observation and nursing care of individuals experiencing changes in their health processes, and the evaluation of health practices of patients. Students who choose practical nursing as a career can complete the components in three semesters and are eligible to apply for licensure as a practical nurse. Graduates are eligible to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN).

The Associate Degree Nursing option prepares graduates to provide and manage patient care and to become members within the discipline of nursing. The associate nursing level focuses on the application of a specialized body of knowledge and skills obtained from social and biological sciences in providing evidenced-based, clinically competent care to individuals across the life span. Students choosing the Associate in Applied Science degree in Nursing can complete the components in four semesters and are eligible to apply for licensure as a registered nurse. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

Acceptance into the Integrated Nursing Program is based upon a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Proof of active status on the Kentucky Medicaid Nurse Aide Registry is required prior to enrolling in the first integrated nursing course. Licensed practical nurses may receive credit for the first and second semesters of nursing courses based upon specific college offerings, work experience, and active Kentucky or compact state licensure status.
Progression within the Integrated Nursing Program is contingent upon achievement of a grade of "C" or better in all program course requirements and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

If more than three years have elapsed since initial enrollment in any nursing program, an applicant must repeat all nursing courses.

A nursing graduate with a misdemeanor or felony conviction may be denied permission to access the NCLEX by the Kentucky Board of Nursing.

The Madisonville Community College Associate Degree Nursing program is currently accredited by:


Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2010.

Associate in Applied Science

Nursing - 5138017069

(Offered at MDC)

General Education:
BIO 135 Basic Anatomy and Physiology with Laboratory* .......... 4
PSY 110 General Psychology ........................................ 3
COM 181 Basic Public Speaking .................................... 3
ENG 101 Writing I .................................................. 3
ENG 102 Writing II .................................................. 3
MAT 150 College Algebra .......................................... 3
Heritage/Humanities ................................................ 3
Subtotal 22

Technical or Support Courses:
CIT 105 Introduction to Computers OR
OST 105 Introduction to Information Systems OR
demonstrated competency ........................................... 0-3
NIP 102 Introduction of Pharmacology .............................. 3
NIP 116 Fundamentals of Nursing .................................. 10
AHS 100 Human Growth and Development** ................. 2
NIP 120 Maternal Child Nursing Care ............................... 3
NIP 128 Medical Surgical Alteration ................................. 10
NIP 212 Advanced Medical Surgical Nursing .................. 10
NIP 215 Leadership and Specialty Practice ........................ 7
Subtotal 22

Total Credits 3-6

NOTE: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, is required prior to enrolling in the first nursing course.

*BIO 137 and BIO 139 may be substituted for BIO 135.

**PSY 223 may be substituted for AHS 100.

Certificates

Medicaid Nurse Aide – 5139012020

MNA 100 Medicaid Nurse Aide OR ................................... 3
NAA 100 Nursing Assistant Skills I OR ................................ 3
NAA 125 Advanced Nursing Assistant OR ....................... (6)
HST 104 Health Care Basic Skills I with Clinical ............... (3.5)

Total Credits 3-6

NOTE: Madisonville Community College does not offer NAA 125

Kentucky Medication Aide - 5139012030

NOTE: After the student completes the first semester of the Integrated Nursing program, the student is eligible to sit for the KMA exam.

AHA Advanced Cardiac Life Support – 5139012050

(Offered at MDC)

NIP 220 Advanced Cardiac & Emergent Care ..................... 2

Total Credits 2

Nursing - Practical Nursing

The Practical Nursing program prepares individuals to practice within the legal scope of practical nursing under the supervision of a registered nurse or physician. Use of the nursing process at the practical nursing level toward the maintenance of health and prevention of illness, the observation and nursing care of persons experiencing changes in their health processes, and the evaluation of health practices of patients are emphasized.

Classroom instruction in theory and basic nursing skills is provided on campus. Under the guidance of program faculty, students gain valuable experience in the care of all ages in a variety of health care settings and/or community agencies - hospitals, long-term care facilities, clinics and child care centers. (Transportation to the community agencies is the responsibility of each student.)

Acceptance in the Practical Nursing program is based on a selective admission process.

Progression in the Practical Nursing program is contingent upon achievement of a grade of "C" or better in each course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of active status on the Medicaid Nurse Aide Registry or successful completion of an equivalent course within the pre-
vious three years is required prior to enrolling in the first nursing course. Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Note: The Kentucky Board of Nursing (KBN) may deny a nursing graduate admission to the NCLEX-PN exam if an individual has been convicted of a misdemeanor or felony that involves acts that bear directly on the qualifications of the graduate to practice nursing.

**Diploma**

Practical Nurse - 5139014039
*(Offered at ASC, BLC, BSC, GTW, HPC, HZC, JFC, MYC, SKY, SMC, WKC)*

Practical Nurse Pathway 1 – Traditional - 513901401
*(Offered at BLC, GTW, HPC, JFC, SKY, SMC)*

**General Education:**

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<th>Area 1</th>
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<td>ENG 101</td>
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<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<tr>
<td>COM 252</td>
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**Subtotal** 7-11

**Technical Core:**

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<td>PSY 110</td>
<td>General Psychology AND</td>
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<td>NPN 110</td>
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<td>NPN 215</td>
<td>Nursing Trends &amp; Issues</td>
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**Subtotal** 38-46

**Total Credits** 45-58

*Taken by advanced nursing assistant and allied health graduates.

Practical Nurse – Pathway 2 – Traditional Modified - 513901402
*(Offered at ASC, BSC, HPC, MYC, WKC)*

**General Education:**

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<td>Basic Public Speaking OR</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Comm.</td>
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**Subtotal** 7-11

**Technical Core:**

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**Subtotal** 38-46

**Total Credits** 45-58

Practical Nurse – Pathway 3 – Modular - 513901403

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**Subtotal** 17

**Technical Core:**

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<td>NPN 215</td>
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**Subtotal** 39

**Total Credits** 56

**Certificates**

Medicaid Nurse Aide - 5139012020
*(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OW, SEC, SKY, SMC, WKC)*

**Available Completely Online**

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<td>NAA 125</td>
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**Total Credits** 3-6

Kentucky Medication Aide - 5139012030
*(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OW, SEC, SKY, SMC, WKC)*

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**Total Credits** 5
The Occupational Therapy Assistant Program is designed to provide a quality educational experience that will train prospective professionals in the art and science of promoting and maintaining the holistic health and wellness of people, organizations, and populations through engagement in occupation. Graduates will be able to perform/engage as entry level professionals under the supervision of an Occupational Therapist (OT). Graduates will develop skills necessary for employment as Certified Occupational Therapy Assistants, thereby meeting the students’ individual needs and the expressed health-care needs of the local and extended communities served by the Colleges. The program strives to fill a growing need for professionals able to contribute to all facets of occupational therapy, from community-based programs to client-centered intervention. The program promotes the value and professional importance of life-long learning.

A basic background in natural sciences, mathematics, communication, and behavioral sciences undergirds the specialized course work. Specialized course work prepares students for the certification examination they will take to become Certified Occupational Therapy Assistants (COTA). Employment may be in hospitals, rehabilitation facilities, nursing homes, clinics, and other health care facilities, as well as within pediatric, community, or educational settings.

Acceptance into the OTA program is based on a selective admission process. In order to be considered for admission, applicants must comply with college and program admission requirements. Students enrolled in the OTA program must achieve a minimum grade of a “C” in each OTA course and prerequisite courses.

CPR requirement must be successfully completed prior to enrolling in the first semester of OTA program. The CPR course must be Professional or Healthcare Provider.

Background check and drug screen prior to admission is required by all students, and students with a misdemeanor or felony conviction may be denied permission to access the NBCOT certification exam. The student is responsible for contacting NBCOT prior to admission.

All prerequisite courses must be complete before a student is admitted in the OTA program.

The Occupational Therapy Assistant Program is accredited by the Accreditation Council on Occupational Therapy Education (ACOTE), of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, Suite 200 Bethesda, MD 20814-3449 Phone number: (301) 652-(AOTA). www.acoteonline.org

Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

Note: An OTA graduate with a misdemeanor or felony conviction may be denied permission to access the NBCOT certification exam. The student is responsible for contacting NBCOT prior to admission.
The Paralegal Technology curriculum is designed to prepare a person for entry-level employment as a paralegal in courts, corporations, law firms, and government agencies. Paralegal Technology is a program of study that requires courses in the technical area. In addition, the Associate in Applied Science degree also requires general education courses.

The curriculum is based on standards developed from the National Association of Legal Assistants' Descriptions of Certified Legal Assistant (CLA) Exam Sections. Additional research data used in the development of publication was collected from a review of related literature.

Industry standards are based on the National Association of Legal Assistants’ Descriptions of Certified Legal Assistant (CLA) Exam Sections.

The successful completion of the Paralegal Technology Program should provide the student the opportunity for employment as a paralegal in private law firms, courts, trust departments of banks, corporations, and government agencies.

Progression in the Paralegal Technology program is contingent upon achievement of a grade of “C” or better in each paralegal technical course.

The Associate in Applied Science degree received upon completion of this concentration is not designed for transfer to a senior college or university. It is designed for immediate employment preparation.

+Students should contact the senior college or university of their choosing to determine what, if any, courses will be accepted as transfer credits.

### Paralegal Technology – 2203027019

(Offered at MDC)

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<td>ENG 112</td>
<td>Quantitative Reasoning</td>
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<td>ENG 114</td>
<td>Natural Sciences</td>
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<td>ENG 115</td>
<td>Social/Behavioral Sciences*</td>
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<td>ENG 116</td>
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### Technical Support Courses:

- **Computer/Digital Literacy Course**
- **Productivity Software**
- **Criminal Justice Elective Course**

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<td>PGL 112</td>
<td>Legal Research</td>
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<td>Law Office Management</td>
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<td>Legal Writing</td>
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<td>Wills and Estates</td>
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<td>Torts</td>
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*PSY 110 (General Psychology) OR SOC 101 (Introduction to Sociology) recommended.

**CRJ 100 (Introduction to Criminal Justice) OR CRJ 216 (Criminal Law) recommended.

### Certificate

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Pharmacy Technology

The pharmacy technician performs technical functions under the direction of a Registered Pharmacist, including prescription preparation, inventory, repackaging, and compounding. The essential elements of this program include the history of pharmacy, pharmacy law, medical terminology, drug classification, and prescription preparation. Laboratory experience and an externship under the supervision of a licensed pharmacist are required components of the program.

Progression in the Pharmacy Technician program is contingent upon achievement of a grade of “C” or above in each required course and maintenance of a 2.0 cumulative grade-point average or above (on a 4.0 scale).

Diploma

Pharmacy Technician II - 5108054029
(Offered at ASC, BLC, HPC, JFC, SMC)

General Education:

Area 1 =

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<td>COM 252</td>
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Area 2 =

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Subtotal: 6-11

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Subtotal: 28-38

Total Credits: 34-49

Additional Suggested Courses (Not Required):

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<td>KHP 190</td>
<td>First Aid and Emergency Care (2)</td>
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Certificates

Pharmacy Technician I - 5108053029
(Offered at ASC, HPC, JFC, OWC, SMC, WRC)

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<td>COM 252</td>
<td>Introduction to Interpersonal Communication OR</td>
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<tr>
<td>COM 101</td>
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<td>AHS 115</td>
<td>Medical Terminology OR</td>
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Retail Pharmacy Technician - 5108053039
(Offered at ASC, HPC, JFC, SMC)

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Total Credits: 21-24

*COM 101 may be used in certificates. If taken in the diploma, an additional three (3) credits will be needed to meet Area 1 requirements.

**PHA 200 and PHA 205 may substitute for PHA 104 but PHA 104 will not substitute for PHA 200 and PHA 205.

Physical Therapist Assistant

This program prepares the individual to become a physical therapist assistant (PTA) who is able to perform selected components of intervention and data collection under the direction and supervision of a physical therapist. The program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE*).

The curriculum combines general education and physical therapy courses. Various facilities are utilized for clinical experiences. The graduate is eligible to sit for the national licensing examination for the physical therapist assistant. Enrollment in this program is limited; therefore, a selective admissions process is followed.

Students enrolled in the Physical Therapist Assistant program must achieve a minimum grade of “C” in each required general education course; a minimum grade of “C” in each required PTA didactic course; and a grade of pass in each clinical practicum course to complete the program.

CPR requirements must be attained by completing a program-approved CPR course prior to enrolling in the first physical therapist assistant course and must be kept current throughout the program.

*The Physical Therapist Assistant programs at Hazard Community and Technical College / Southeast Kentucky Community and Technical College, Jefferson Community and Technical College, Madisonville Community College, Somerset Community College, and West Kentucky Community and Technical College are accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) 1111 North Fairfax Street, Alexandria VA, 22314; telephone: 703-706-3245; e-mail: accreditation@apta.org; website: www.capteonline.org.
Plastics Processing

The Plastics Processing certificate will prepare students for an entry-level position in plastics processing companies.

Certificate

Plastics Processing - 1506073049

(Offered at MYC)

ITE 233 Statistical Process Control ............................................. 3
ELT 107 Computer Applications for Technicians .......................... 4
ISX 101 Introduction to Industrial Safety ..................................... 3
PL 101 Plastic Processes and Materials ..................................... 4
PL 151 Polymer Science & Testing .......................................... 4
PL 251 Injection Molding OR .................................................. 4
PL 261 Plastics Extrusion ......................................................... (4)
Total Credits 22

Plumbing Technology

Installing water supply and waste disposal systems in residential, commercial, and highly complex industrial sites is the focus of the plumbing program. In addition to practical experiences, instruction is given in laws and codes, blueprint reading, drawing, special equipment and other related areas.

Associate in Applied Science

Plumbing Technology - 4605037019

(Offered at ELC)

General Education:

ENG 101 Writing I ......................................................... 3
Quantitative Reasoning ....................................................... 3
Social/Behavioral Sciences .................................................. 3
Heritage/Humanities ........................................................... 3
Natural Sciences ................................................................... 3
Oral Communications .......................................................... 3
Subtotal 18

Technical Courses:

Computer/Digital Literacy ......................................................... 3
PLB 150 Plumbing, Introduction to the Trade AND ..................... 3
PLB 151 Basic Plumbing Skills OR ........................................ 3
PLB 100 Basic Theory of Plumbing AND ................................ (3)
PLB 105 Plumbing Principles ................................................ (3)
PLB 160 Plumbing Systems, DWV & Water ............................ 3
PLB 161 Rough-In of Plumbing Fixtures ................................. 2
PLB 250 Plumbing Appliances & Fixtures ............................... 3
PLB 251 Pumps & Water Heaters .......................................... 2
PLB 260 Service AND ....................................................... 2

Technical Support Courses:

AHS 105 Introduction to Allied Health Occupations .................. 3
Subtotal 3
**Academic Curricula**

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<tr>
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<td>PLB 265                   Valve &amp; Faucet Repairs AND</td>
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<tr>
<td>PLB 267                   Water Heater Service &amp; Replacement AND</td>
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<td>PLB 269                   Sewer &amp; Drain Cleaning</td>
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<td>PLB 262                   Back Flow Prevention</td>
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<td>PLB 270                   License Preparation for Journeyman Exam</td>
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<tr>
<td>PLB 298                   Plumbing Practicum/Repairs &amp; Maintenance OR</td>
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<tr>
<td>PLB 299                   Plumbing Cooperative Education</td>
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<td>BRX 220                   Blueprint Reading for Construction</td>
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<td>EFM 100                   Personal Financial Management</td>
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### Diploma

**Plumber Mechanic - 4605034019**

*(Offered at ELC, JFC, MYC)*

### Finish Plumber Mechanic - 4605033069

*(Offered at BSC, ELC, JFC, MYC)*

<table>
<thead>
<tr>
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<tbody>
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<tr>
<td>PLB 151                   Basic Plumbing Skills OR</td>
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<td>PLB 100                   Basic Theory of Plumbing AND</td>
<td>3</td>
</tr>
<tr>
<td>PLB 105                   Plumbing Principles</td>
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<td>PLB 115                   Plumbing Applications</td>
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<tr>
<td>ISX 101                   Introduction to Industrial Safety OR</td>
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<td>ISX 100                   Industrial Safety</td>
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### Maintenance Plumber Mechanic - 4605033049

*(Offered at BSC, ELC, JFC, MYC)*

<table>
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<tbody>
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<td>PLB 151                   Basic Plumbing Skills OR</td>
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<tr>
<td>PLB 100                   Basic Theory of Plumbing AND</td>
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</tr>
<tr>
<td>PLB 105                   Plumbing Principles</td>
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</tr>
<tr>
<td>PLB 160                   Plumbing Systems, DWV &amp; Water</td>
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<tr>
<td>PLB 161                   Rough-In of Plumbing Fixtures</td>
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<tr>
<td>PLB 250                   Plumbing Appliances &amp; Fixtures</td>
<td>3</td>
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<tr>
<td>PLB 251                   Pumps &amp; Water Heaters</td>
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### 2nd Year Plumber Mechanic* - 4605033119

*(Offered at ELC, JFC, MYC)*

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<td>PLB 151                   Basic Plumbing Skills OR</td>
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<tr>
<td>PLB 100                   Basic Theory of Plumbing AND</td>
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</tr>
<tr>
<td>PLB 105                   Plumbing Principles</td>
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</tr>
<tr>
<td>PLB 160                   Plumbing Systems, DWV &amp; Water</td>
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<tr>
<td>PLB 161                   Rough-In of Plumbing Fixtures</td>
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</tr>
<tr>
<td>PLB 250                   Plumbing Appliances &amp; Fixtures</td>
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<td>PLB 251                   Pumps &amp; Water Heaters</td>
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### Certificates

**Certified Backflow Tester* - 4605033079**

*(Offered at BSC, ELC, JFC, MYC)*

<table>
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<th>Course</th>
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</table>

*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test.*

---

*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test.*
Professional Craft: Pottery

This program is designed to prepare individuals for employment as professional potters or in pottery-related fields. The curriculum introduces both traditional and contemporary concepts of pottery. The program provides training in technical skills, design skills, and marketing and business essentials. Course work includes development of basic and advanced throwing skills with emphasis on form and design. Study will include pottery studio design and marketing procedures for the professional potter. Graduates will be able to open and operate their own pottery, work for existing pottery businesses, or transfer to a four-year degree program. Upon completion, graduates will receive an Associate in Applied Science degree.

Kiln Building for Professional Potters Certificate:

Includes instruction in the methods of kiln construction, the principles used in designing kilns, and instruction in how to prepare layouts for building kilns. Topics include safety, historical and perspective, materials, design, type, fuels, and firing process. The program will also provide students with hands on experience in the building of kilns for use by professional potters. Students will participate in the building of two different types of kilns using two different types of fuels. Upon successful completion of the program, students will be able to supervise the construction of kilns for use by professional potters.

Professional Raku Pottery Certificate:

Provides students with advanced instruction in the techniques of producing and firing raku pottery. The program provides instruction in advanced shapes and decoration; constructing, loading, and firing a personal raku kiln; and the creation of a body of work for a one-person show and sale.

Certificates

Kiln Building for Professional Potters - 5007113029
(Offered at SEC)

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<tr>
<td>PC 110</td>
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<td>PC 250</td>
<td>Professional Kiln Design</td>
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<td>PC 252</td>
<td>Professional Kiln Building</td>
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Professional Raku Pottery - 5007113019
(Offered at SEC)

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<td>PC 110</td>
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<tr>
<td>PC 254</td>
<td>Professional Raku Pottery I</td>
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<td>PC 256</td>
<td>Professional Raku Pottery II</td>
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</table>
The Professional Studio Artist (PSA) program prepares individuals for careers as independent studio artists and business owners, designers, performers and studio technicians. The curriculum offers technical, design, product development and performance classes in a variety of disciplines coupled with business, marketing and management courses. Class work covering the history and traditions of each discipline, basic studio development and technology requirements will be a vital part of the student’s education. Students will complete a track of study and acquire the necessary technical proficiency, creative problem solving, business skills, production processes and the knowledge to apply these aspects to careers in the craft, music, theater, or applied arts fields.

The AAS Track in Wood/Furniture Design prepares a student to start a business in studio furniture design and manufacturing, begin employment as a designer/maker for a small to mid-size woodworking company, work as a model maker/prototype builder for the wood/furniture industry, work as a furniture maker/technician, start a career as a furniture conservationist, or pursue a four-year degree. The program of study will offer a diverse and comprehensive study in furniture design and making; the technology of wood as a material; the technical aspects of wood machinery and hand tool usage; the importance and applications of drawing and design; and the practicality of business ownership, craft marketing and business management.

The diploma in Wood Studio Technician and the certificate in Furniture Making Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as furniture makers. The Wood Studio Certificate will give the student an intensive foundation in woodworking techniques and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of woodworking and furniture making procedures necessary for entry-level positions in the custom furniture industry.

The AAS Jewelry/Metals Track prepares a student to start a business in studio jewelry design, producing one-of-a-kind and limited production works for the private market; work in a commercial studio as a professional jeweler or as a model designer/fabricator; or to enter into the field of jewelry/metal conservation. Creative problem solving and functional design are essentials to the program as well as extensive laboratory coursework in all aspects of bench jewelry repair, the metallurgical science of precious metals, traditional and non-traditional metal processes, processes of jewelry mass production, silversmithing, goldsmithing and work in new technologies such as computer-aided jewelry design.

The diploma in Jewelry/Metals Technician and the certificate in Jewelry/Metals Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as a ceramicist and technician. The Ceramics Studio Certificate will give the student an intensive foundation in ceramics technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of ceramic object design and fabrication techniques necessary for entry-level positions in custom or commercial ceramic industry.

The diploma in Bluegrass & Traditional Studio Artist and the certificate in Bluegrass & Traditional Music Fundamentals will afford students the opportunity to acquire training in the basics of performance, recording, songwriting and management. The diploma and certificate programs signify that the student possesses a basic understanding of the major components necessary for an entry-level career in Bluegrass and Traditional Music.

The AAS track in Ceramics prepares a student to start a business in studio production for pottery, tiles, slip casting, mold making and/or kiln building; begin employment as a studio technician to maintain equipment and manage various kinds of kiln firings; work for commercial ceramics businesses as a production designer, decorator, mold-maker, decal maker, conservationist, kiln and/or glaze technician; or to pursue higher degrees in the field of ceramics. The program is designed to prepare students to become independent and self-reliant ceramicists in creative and functional design.

The diploma in Ceramics Studio Technician and the certificate in Ceramics Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as a ceramicist and technician. The Ceramics Studio Certificate will give the student an intensive foundation in ceramics technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of ceramic object design and fabrication techniques necessary for entry-level positions in custom or commercial ceramic industry.

Documentation of digital literacy as defined by KCTCS is required prior to enrolling in the first PSA course.

**Associate in Applied Science**

Professional Studio Artist - 5002017019

(Offered at HZC)

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<td>MAT 110</td>
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<td>COM 252</td>
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<td>COM 181</td>
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<td>BAS 200</td>
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<td>ACT 101</td>
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<tr>
<td>PSW 111</td>
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| **HUM 202 for Bluegrass and Traditional Music Track**
| PSW 230        | 3       |
| **Total Credits** | **61-62** |

Wood/Furniture Design Track - 500201701

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Jewelry/Metals Track - 500201702

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<td>ART 113 2-Dimensional Design</td>
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<td>ART 130 3-Dimensional Design</td>
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<td>BAS 200 Small Business Management</td>
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<td>ACT 101 Fundamentals of Accounting I</td>
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<td>PSJ 110 Jewelry/Metals I</td>
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<td>PSJ 116 Ancient Techniques</td>
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<td>PSJ 117 Metal Casting /Finishing Techniques</td>
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<td>PSJ 210 Jewelry/Metals III</td>
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<td>PSJ 211 Hollowware and Metal Forming</td>
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<td>PSJ 216 Stone Setting</td>
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<td>PSJ 220 Jewelry/Metals Product Development</td>
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<td>PSA 240 Professional Artist Seminar</td>
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Subtotal 45

Total Credits 63-64

Bluegrass and Traditional Music Track - 500201703

*(Offered HZC)*

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<td>ACT 101 Fundamentals of Accounting I</td>
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<td>MLIS 174 Theory for Non-Music Majors</td>
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<td>MLIC 150 Classic Instruction to Piano OR,...</td>
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<tr>
<td>PSM 101 Bluegrass &amp; Traditional Music History I</td>
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<tr>
<td>PSM 105 Recording I</td>
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<td>PSM 107 Songwriting I</td>
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<td>PSM 112 Individual String Instrument Instruction</td>
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<td>PSM 113 Guitar I OR,...</td>
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<td>PSM 114 Bluegrass &amp; Traditional Band/Ensemble x4</td>
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<tr>
<td>PSM 118 Bluegrass &amp; Traditional Harmony/Part Singing</td>
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<td>PSM 121 Bluegrass &amp; Traditional Music History II</td>
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<td>PSM 125 Recording II OR</td>
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<tr>
<td>PSM 117 Songwriting II</td>
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<tr>
<td>PSM 231 Bluegrass &amp; Traditional Music III</td>
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<td>PSM 235 Recording III OR</td>
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<td>PSM 237 Songwriting III</td>
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<td>PSM 245 Recording IV OR</td>
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<td>PSM 247 Songwriting IV</td>
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<td>PSA 240 Professional Artist Seminar</td>
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Subtotal 42-44

Total Credits 60-63

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<td>PSM 250 Field Experience/Production Business</td>
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Ceramics Track - 500201704

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<td>ART 112 2-Dimensional Design</td>
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<td>ART 113 3-Dimensional Design</td>
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<td>BAS 200 Small Business Management</td>
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<td>ACT 101 Fundamentals of Accounting I</td>
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<tr>
<td>PSC 112 Ceramics I</td>
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<tr>
<td>PSC 115 Ceramics II</td>
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<tr>
<td>PSC 117 Glaze Calculations</td>
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<tr>
<td>PSC 210 Ceramics III</td>
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<tr>
<td>PSC 211 Kiln Operation and Design</td>
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<tr>
<td>PSC 212 Ceramic Production Techniques</td>
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<td>PSC 215 Ceramics IV</td>
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<td>PSC 220 Ceramics Product Development</td>
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<td>PSA 240 Professional Artist Seminar</td>
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Subtotal 45

Total Credits 63-64

Diplomas

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Subtotal 6

Technical/Support Courses

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<table>
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<td>ART 113 3-Dimensional Design</td>
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<tr>
<td>PSJ 110 Jewelry/Metals I</td>
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<td>PSJ 115 Jewelry/Metals II</td>
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<td>PSJ 211 Hollowware and Metal Forming</td>
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<td>PSJ 212 Metallurgy of Precious Metals</td>
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Subtotal 31-34

Total Credits 37-40

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<th>Course</th>
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<tr>
<td>Bluegrass &amp; Traditional Studio Artist - 5002014039</td>
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*(Offered at HZC)*

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Subtotal 6

Technical/Support Courses

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<tr>
<td>ART 110 Drawing I</td>
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<td>PSJ 210 Jewelry/Metals III</td>
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<td>PSA 216 Stone Setting</td>
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Subtotal 31-34

Total Credits 37-40

Bluegrass & Traditional Studio Artist - 5002014039

General Education:

Area 1 = Written/Oral Communications, and/or
Heritage/Humanities ........................................... 3-6

Area 2 = Social/Behavioral Science, Natural Science and/or
Quantitative Reasoning .................................... 3-6

Subtotal .................................................. 9

Support Courses

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<td>HUM 202 Survey of Appalachian Studies I</td>
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<td>MLIS 174 Theory for Non-Music Majors</td>
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Subtotal 9
### Technical Courses

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<td>PSJ 212</td>
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#### Total Credits
16

### Bluegrass & Traditional Music Fundamentals - 5002013039

#### Technical Courses

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<td>PSM 112</td>
<td>Individual String Instrument Instruction x4</td>
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<td>PSM 105</td>
<td>Recording I</td>
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<tr>
<td>PSM 107</td>
<td>Songwriting I</td>
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<td>PSM 114</td>
<td>Bluegrass &amp; Traditional Band/Ensemble x4</td>
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<td>PSM 101</td>
<td>Bluegrass &amp; Traditional Music History</td>
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<td>PSM 113</td>
<td>Guitar I OR</td>
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#### Competency by audition

#### Total Credits
16

### Audio Recording – 5002013089

#### Technical Courses

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<td>PSM 235</td>
<td>Recording III</td>
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<td>PSM 245</td>
<td>Recording IV</td>
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#### Total Credits
14-15

### Ceramics Fundamentals - 5002013049

#### Technical Courses

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<tr>
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<td>PSC 117</td>
<td>Glaze Calculations</td>
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<td>PSC 210</td>
<td>Ceramics III</td>
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<td>PSC 211</td>
<td>Kiln Operation and Design</td>
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<td>Ceramic Production Techniques</td>
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<td>PSC 215</td>
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#### Total Credits
30-33

### Certificates

#### Furniture Making Fundamentals - 5002013029

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<tbody>
<tr>
<td>ART 110</td>
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<tr>
<td>PSW 111</td>
<td>Introduction to Furniture Making</td>
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<td>PSW 115</td>
<td>Furniture Making II</td>
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<tr>
<td>PSW 116</td>
<td>Wood Finishing</td>
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<tr>
<td>PSW 211</td>
<td>Wood Bending and Veneering</td>
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#### Total Credits
14

### Wood Furniture Studio - 5002013059

<table>
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<tbody>
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<td>Introduction to Furniture Making</td>
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<tr>
<td>PSW 115</td>
<td>Furniture Making II</td>
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<tr>
<td>PSW 116</td>
<td>Wood Finishing</td>
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<td>PSW 117</td>
<td>Wood Turning for Furniture</td>
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<td>PSW 211</td>
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#### Total Credits
14

### Porcelain Studio - 5002013019

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<td>2-Dimensional Design</td>
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<tr>
<td>PSJ 110</td>
<td>Jewelry/Metals I</td>
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<td>PSJ 115</td>
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<tr>
<td>PSJ 210</td>
<td>Jewelry/Metals III</td>
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#### Total Credits
15
Project Lead the Way

Project Lead the Way complements traditional college-preparatory academic studies with challenging career/technical studies, providing students with hands-on exposure to real-life engineering challenges.

Certificate

Engineering Related – PLTW – 1515993019

(Offered at OWTC, MDC, SEC)

PLW 100 Introduction to Engineering Design .................. 4
PLW 125 Principles of Engineering ................................4
PLW 150 Digital Electronics ........................................4
PLW 200 Aerospace Engineering or ..................................4
PLW 225 Civil Engineering and Architecture or ..................4
PLW 250 Computer Integrated Manufacturing or ...............4
PLW 295 Engineering Design and Development ..................4

Total Credits 20

Quality Management Systems

The Quality Management Systems program prepares students to analyze and implement systems for continuous improvement of functions and processes for the manufacturing, government, and service sectors. Students are taught to analyze and solve quality problems, prepare inspection plans and instructions, and select sampling plan applications. Emphasis is placed on learning the tools and techniques for controlling processes, improving process quality, improving efficiencies, and eliminating defects. Upon completion of the program, graduates are qualified for employment in entry-level management or supervisory positions. Course work uses and reflects the knowledge found in professional quality certifications such as offered by the American Society for Quality.

Associate in Applied Science

Quality Management Systems - 1507027019

General Education

ENG 101 Writing I ..................................................3
ENG 102 Writing II ..................................................3
ENG 203 Business Writing OR ..................................3
ENG 204 Technical Writing .......................................3
COM 181 Basic Public Speaking ..................................3
MA 109 College Algebra OR .....................................3
MAT 150 College Algebra .........................................3

Social/Behavioral Sciences Course ................................3
Heritage/Humanities course .......................................3
Natural Sciences Course ..........................................3
Elective ..................................................................3

Subtotal .................................................................27 hrs.

Technical Core 18 -21 hrs.

QMS 101 Introduction to Quality Systems .......................0-3
QMS 201 Customer Service Improvement Skills ................3
QMS 202 Performance Management ................................3
QMS 220 Quality Audits ..........................................3
QMS 240 Statistics for Quality I ...................................3
QMS 242 Statistics for Quality II ..................................3

Subtotal 18-21 hrs.

Technical Support Courses—15 -17 hrs.

QMS 210 Lean Processes ...........................................3
QMS 212 Project Management .....................................3
QMS 251 Strategic Quality Planning .............................3
QMS 262 Design of Experiments ................................4
QMS 299 Topics in Quality Management Systems: (Topic) ........1-6
BAS 212 Introduction to Financial Management ...............3
BRX 120 Basic Blue Print Reading ..............................3
ENG 203 Business Writing OR ..................................3
ENG 102 Advanced Computer-Aided Design ..................4
ENG 201 Intermediate Computer-Aided Design ...............4
ENG 201 Cooperative Education ................................4
ECO 101 Contemporary Economic Issues ....................3
ELT 110 Circuits I ..................................................5
ELT 114 Circuits II ..................................................5
ENV 110 Introduction to Environmental Technology ...........4
ELT 102 Blue Print Reading .......................................2
ELT 261 Instrumentation and Measurement ....................3
ISX 101 Introduction to Industrial Safety .......................3
ISX 100 Occupational Health and Industrial Hygiene Methods ...4
ME 105 Basic Engineering Graphics ............................3
MFG 145 Manufacturing Process ................................3
MFG 236 Production Management ..............................3
MFG 265 Robotics Fundamentals ................................3

Total 60 - 65

Diploma

Quality Technician - 1507024029

(Offered at HPC)

General Education

ENG 101 Writing I ..................................................3
MAT 150 College Algebra .........................................3

Subtotal 6

Technical Component

Computer/Digital Literacy ......................................... 0-3
BRX 120 Basic Blue Print Reading ..............................3
QMS 101 Introduction to Quality Systems .......................3
QMS 201 Customer Service Improvement Skills ................3
QMS 202 Performance Management ................................3
QMS 220 Quality Audits ..........................................3
QMS 240 Statistics for Quality I ...................................3
QMS 242 Statistics for Quality II ..................................3

Subtotal 28-31

Technical Course form AAS List ..................................3

Total 34-37

Certificates

Lean Manufacturing Facilitator – 1507023119

QMS 101 Introduction to Quality Systems .......................3
QMS 210 Lean Processes ...........................................3
QMS 220 Quality Audits ..........................................3
ENG 203 Business Writing OR ..................................3

Total Credits 9-12

Quality Support - 1507023059

MA 109 College Algebra OR ....................................3
MAT 150 College Algebra .........................................3
QMS 101 Introduction to Quality Systems .......................3
QMS 240 Statistics for Quality I ...................................3
QMS 242 Statistics for Quality II ..................................3

Total 12
Quality Monitor - 1507023069
(Offered at HPC)

- ENG 101 Writing I ........................................ 3
- MA 109 College Algebra OR .............................. 3
- MAT 150 College Algebra ................................ 3
- QMS 101 Introduction to Quality Systems ............. 3
- QMS 201 Customer Service Improvement Skills ...... 3
- QMS 202 Performance Management .................. 3
- QMS 220 Quality Audits ................................ 3
- QMS 240 Statistics for Quality I ....................... 3
- QMS 242 Statistics for Quality II ....................... 3
- Total 24

Quality Leader - 1507023079

- QMS 101 Introduction to Quality Systems ............. 3
- QMS 201 Customer Service Improvement Skills ...... 3
- QMS 202 Performance Management .................. 3
- QMS 251 Strategic Quality Planning .................. 3
- Total 12

Quality Specialist I - 1507023089

- QMS 220 Quality Audits ................................ 3
- QMS 240 Statistics for Quality I ....................... 3
- QMS 242 Statistics for Quality II ....................... 3
- Total 12

Quality Specialist II - 1507023099

- QMS 220 Quality Audits ................................ 3
- QMS 240 Statistics for Quality I ....................... 3
- QMS 242 Statistics for Quality II ....................... 3
- QMS 262 Design of Experiments ...................... 4
- Total 13

Quality Auditor - 1507023109

- ENG 101 Writing I ........................................ 3
- ENG 102 Writing II ...................................... 3
- ENG 203 Business Writing OR ........................ 3
- ENG 204 Technical Writing ................................ (3)
- QMS 201 Customer Service Improvement Skills ...... 3
- QMS 220 Quality Audits ................................ 3
- Total 15

Radiography

This program prepares the individual to become a radiographer. The radiographer is prepared to administer ionizing radiation for medical diagnostic imaging purposes. Emphasis is on radiation protection and quality patient care. The curriculum is comprised of specialized courses in radiography with concentrated study in the basic sciences, mathematics and general education. Students enrolled in the Radiography program must achieve a minimum grade of "C" in each Radiography course, required natural science course, and required quantitative reasoning course. Upon completion of the program, the graduate is eligible to apply to write the examination for registration as a radiographer by the American Registry of Radiologic Technologists. Radiographers may find positions in hospitals, health clinics, and physicians’ offices. Research laboratories and some industrial firms may also employ radiographers. The curriculum requires attendance in the summer session, fall and spring semesters. Note: CPR certificate must be obtained prior to enrolling in IMG 100 or IMG 104, IMG 106 and IMG 108 and certification must be kept current throughout the program. Note: Documentation of digital literacy as defined by KCTCS is required prior to admission to IMG courses.

Advanced Imaging in Radiography focuses on the areas of Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) in the Radiological Sciences. Didactic and clinical instruction prepares the technologist to work in the areas of CT and MRI in the healthcare setting and to sit for the Advanced Board Exams given by the American Registry of Radiologic Technologists. These courses are offered for technologists who are currently registered by the American Registry of Radiologic Technologists in Radiography or the Nuclear Medicine Technology Certification Board in Nuclear Medicine, or students who have completed one year and are currently enrolled in an accredited radiography or nuclear medicine program, or by consent of the instructor. The core curriculum courses are intended to provide the student with an overall knowledge of advanced patient care and sectional anatomy. The CT and MRI tracks focus on the physics, instrumentation and imaging techniques of these modalities. The student may choose CT or MRI or both. Although these courses are organized in a hierarchical pattern, depending on the entry-level knowledge and the needs of the student, they may be taken out of sequence with consent of the instructor.

Note: Hours Exception (71-75 for the A.A.S. and 56-62 for the Diploma) approved by the KCTCS Board of Regents in June 2010.

Associate in Applied Science

Radiography - 5109117019
(Offered at BLC, ELC, HZC, JFC, MDC, OWC, SEC, SKY, SMC, WKC)

General Education:

- Social/Behavioral Sciences ........................................ 3
- Oral Communications .................................................. 3
- Higher Level Quantitative Reasoning Course .......... (3)
- Human Anatomy & Physiology I .......................... 4
- Human Anatomy & Physiology II ......................... 4
- Physics for Health Sciences OR ........................... 2
- Introduction to Physics OR .................................... (3)
- Applied Physics ......................................................... (4)
- Total 25-27

Support Course:

- Medical Terminology from Greek & Latin OR .......... 3
- Medical Terminology .................................................. (3)
- Total 3

Pathway 1 – 510911701
(Offered at BLC, HZC, SEC)

Technical Courses:

- Radiography I ......................................................... 7
- Clinical I ................................................................. 4
- Radiography II ....................................................... 7
- Clinical II ................................................................. 4
- Clinical III ............................................................... 3
- Radiography IV ....................................................... 4
- Clinical IV ................................................................. 6
- Radiography V ....................................................... 4
- Clinical V ................................................................. 6
- Total 45

Total Credits Pathway 1 .............................. 73-75
Technical Courses:

**Pathway 2 – 510911702**
*(Offered at ELC, JFC, MDC, OWC, SEC, SKY, SMC, WKC)*

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<td>Introduction to Radiography</td>
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<td>IMG 106</td>
<td>Patient Care in Radiography*</td>
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<td>Radiographic Procedures I</td>
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<td>Clinical Practice I</td>
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<td>IMG 114</td>
<td>Image Production and Acquisition</td>
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<td>IMG 116</td>
<td>Advanced Patient Care in Radiography</td>
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<td>IMG 118</td>
<td>Radiographic Procedures II</td>
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<td>Clinical Practice II</td>
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<td>Clinical Practice III</td>
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<td>Basic Computed Tomography</td>
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<td>Radiation Protection &amp; Biology</td>
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<td>Radiography Pathology</td>
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<td>IMG 228</td>
<td>Radiography Seminar</td>
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<tr>
<td>IMG 229</td>
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**Total Credits Pathway 2**  
71-73

*Note: The Kentucky Board for Respiratory Care may deny mandatory certification for convicted felons. Questions should be directed to the Kentucky Board for Respiratory Care.

# Note: Digital literacy must be documented by competency exam or by completing a digital literacy course.

Associate in Applied Science

**Advanced Practice Respiratory Therapist - 5109087049**
*(Offered at ASC, BLC, BSC, ELC, JFC, MDC, MYC, SEC, SMC)*

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<td>Human Anatomy &amp; Physiology II*</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra* OR</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics* OR</td>
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<td>MAT 146</td>
<td>Contemporary College Mathematics*</td>
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<tr>
<td>ENG 101</td>
<td>Writing I*</td>
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<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
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<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
<td>3</td>
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</table>

**General Education Total**  
23

**Recommended Additional Course(s)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>RCP 110</td>
<td>Cardiopulmonary Anatomy &amp; Physiology</td>
<td>3</td>
</tr>
<tr>
<td>RCP 120</td>
<td>Theory &amp; Principles of Respiratory Care OR</td>
<td>4</td>
</tr>
<tr>
<td>RCP 122</td>
<td>Fundamentals of Respiratory Care #</td>
<td>4</td>
</tr>
<tr>
<td>RCP 125</td>
<td>Cardiopulmonary Evaluation OR</td>
<td>2</td>
</tr>
<tr>
<td>RCP 140</td>
<td>Cardiopulmonary Assessment#</td>
<td>2</td>
</tr>
<tr>
<td>RCP 130</td>
<td>Pharmacology OR</td>
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</tr>
<tr>
<td>HST 121</td>
<td>Pharmacology**</td>
<td>2</td>
</tr>
<tr>
<td>RCP 150</td>
<td>Clinical Practice I OR</td>
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</tr>
<tr>
<td>HST 101</td>
<td>Basic Skills II OR</td>
<td>3</td>
</tr>
<tr>
<td>RCP 121</td>
<td>Respiratory Care Practice #</td>
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</tr>
<tr>
<td>RCP 175</td>
<td>Clinical Practice II OR</td>
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<tr>
<td>RCP 176</td>
<td>Respiratory Care Practice II#</td>
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<tr>
<td>RCP 180</td>
<td>Ventilatory Support AND</td>
<td>3</td>
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<tr>
<td>RCP 190</td>
<td>Advanced Ventilatory Support OR</td>
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</tr>
<tr>
<td>RCP 185</td>
<td>Introduction to Mechanical Ventilation# AND</td>
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</tr>
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<td>RCP 195</td>
<td>Patient Ventilator System Management#</td>
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<tr>
<td>RCP 200</td>
<td>Clinical Practices III OR</td>
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<td>RCP 201</td>
<td>Respiratory Care Practice III#</td>
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<tr>
<td>RCP 204</td>
<td>Emergency and Special Procedures AND</td>
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</table>

**Technical Courses:**

Respiratory Care

The Respiratory Care program prepares the graduate to take an active role in the maintenance and/or restoration of cardiopulmonary homeostasis. The curriculum includes intensive course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area clinical affiliates. Students enrolled in the Respiratory Care program are required to achieve a minimum grade of "C" in each Respiratory Care course.

Although hospitals employ the majority of respiratory therapists, other employers include home care providers, medical clinics, nursing homes, and industry. Graduates are qualified to take the National Board for Respiratory Care examination in order to receive the Certified Respiratory Therapist (C.R.T.) credential. Graduates who successfully completed the CRT examination may additionally take the advanced practice examinations and receive the Registered Respiratory Therapist (RRT) credential.

*Note: Hours Exception (67-70 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.
Academic Curricula

RCP 214 Advanced Diagnostic Procedures OR .................................. 3
RCP 240 Advanced Cardiopulmonary Evaluation# AND .................. (3)
RCP 245 Advanced Cardiac Life Support# ........................................ (2)
RCP 210 Cardiopulmonary Pathophysiology OR .......................... 3
HST 122 Clinical Pathophysiology** ............................................. (3)
RCP 212 Neonatal/Pediatric Respiratory Care .............................. 3
RCP 225 Clinical Practice IV OR .................................................. 3
RCP 226 Respiratory Care Clinical Practice IV# .......................... (4)
RCP 228 Preventive and Long Term Respiratory Care ................. 2
RCP 250 Clinical Practice V OR ..................................................... 3
RCP 251 Respiratory Care Practice V# ........................................... (4)
Elective (BCTC requires RCP 260) ............................................. 0
Technical Course Credit Total# .................................................. 47
Technical Course Credit Total# ................................................... 45
Total Credits 68-70

*General Education Course

**May not be accepted at Elizabethtown CTC or Madisonville CC for Respiratory Care degree program credit.

# RCP courses currently only offered and required at BCTC for degree completion at that college.

Certificates

Polysomnographic Technologist - 5109083069

BIO 137 Human Anatomy & Physiology* ..................................... 4
BIO 139 Human Anatomy & Physiology II* ............................... 4
ENG 101 Writing I ................................................................. 1
MAT 150 College Algebra* OR ................................................. 3
MAT 146 Contemporary College Mathematics* OR .................... (3)
MAT 110 Applied Mathematics* ............................................... 3
AHS 115 Medical Terminology ..................................................... 3
Subtotal 17

Technical Courses

PSG 100 Introduction to Polysomnography .................................. 2
PSG 110 Polysomnography Level I ............................................. 3
PSG 111 Polysomnography Lab I ............................................... 1
PSG 115 Polysomnography Practice I ......................................... 3
PSG 130 Polysomnography Level II .......................................... 3
PSG 131 Polysomnography Lab II .............................................. 1
PSG 133 Pathology of Sleep and Related Disorders .................... 3
PSG 135 Polysomnography Practice II ....................................... 3
Subtotal 19
Total Credits 36

Electrocardiographic and Cardiac Monitoring Technician - 5109083049

(Offered at BLC, BSC, ELC, JFC, SKY)

BIO 137 Human Anatomy & Physiology* .................................. 4
BIO 139 Human Anatomy & Physiology II* ............................... 4
MAT 150 College Algebra* OR ................................................. 3
MAT 146 Contemporary College Mathematics* OR .................... (3)
MAT 110 Applied Mathematics* ............................................... 3

Technical Courses

RCP 210 Cardiopulmonary Anatomy & Physiology ..................... 3
RCP 212 Cardiopulmonary Evaluation OR ............................... 4
RCP 214 Cardiopulmonary Assessment ..................................... (2)
RCP 150 Clinical Practice I ** OR ............................................. 2
RCP 121 Respiratory Care Practice I** ...................................... (1)
HST 101 Basic Skills I** ......................................................... (3)
Total Credits 17-21

* General Education Course

**May not be accepted at Elizabethtown CTC or Madisonville CC for Respiratory Care degree program credit.

RCP courses currently only offered and required at BCTC to complete certificate.

Security Management

The Security Management Coordinator program provides a comprehensive overview of physical security policies, procedures and techniques. Topics covered are perimeter protection, intrusion detection, access control, CCTV, locks and locking devices, lighting, security design and surveys, contingency planning, and acts of violence. Instruction in all types of security hardware: electronic and mechanical door locks, access control systems and their devices, as well as intrusion detection systems and cameras, and safe and safe hardware is available.

The Supply Chain Security program provides an overview of the needs and requirements for a safe, secure supply chain. The program looks at threats, and offers solutions. The House Select Committee on Homeland Security issued a comprehensive assessment (February 2004) on the United State’s levels of preparation against terrorist activity. The Committee concluded in part “Pathways to the United States by land, sea and air are insecure.” Security throughout transportation, storage, shipping and receiving of cargo is addressed in this program. The concept of proactive versus reactive, planning and the overall needs of a security operation are discussed. Specific security systems are discussed, as well as the creation and implementation of security policies. Basic security equipment and procedures, including perimeter protection, intrusion detection, security surveys and CCTV systems are covered, as well as management issues to include terrorism, crisis management and basic guard force management. A Security Design section of the program looks at ways to maximize the security benefits within operational (financial and aesthetic) constraints.

The Antiterrorism Physical Security Specialist program provides a comprehensive overview of a physical security program. Topics covered are access control systems; intrusion detection, both interior and exterior; crisis management; national incident management systems; contracting guard forces; international and domestic terrorism and their threat to America; security surveys/security audits; managing a security operation; IT security; CCTV; contingency planning; locks and locking devices; workplace violence; and perimeter security.

The Safe & Lock Technician program provides a comprehensive hands-on knowledge of safes and locks. This program will provide the technician with the training to service, maintain and troubleshoot safes and locks. Topics covered are electronic access control systems, safe lock servicing – electronic and mechanical, combination lock manipulation, basic safe penetration, locks and locking devices, safe and safe hardware, security hardware, electronic and mechanical door locks.

For all programs: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI.

Certificates

Security Management Coordinator - 4301123010

(Offered at BLC)

LSI 120 Comprehensive Security Specialist ............................... 4
LSI 140 Managing Terrorism & Other Crises ............................. 1
LSI 150 Professional Locksmithing ............................................ 4
Electives ............................................................................. 3
Total Credits 12

Academic Curricula
Electives: A minimum of 3 credit hours must be taken from this list of electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>LSI 100</td>
<td>Fundamental Principles of Physical Security</td>
<td>2</td>
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<tr>
<td>LSI 105</td>
<td>Force Protection</td>
<td>3</td>
</tr>
<tr>
<td>LSI 110</td>
<td>Security Surveys</td>
<td>2</td>
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<tr>
<td>LSI 115</td>
<td>Command Security Officer Training</td>
<td>4</td>
</tr>
<tr>
<td>LSI 130</td>
<td>GSA: Locks, Vault &amp; Containers</td>
<td>4</td>
</tr>
<tr>
<td>LSI 131</td>
<td>GSA: Locks, Vault &amp; Containers Certified Inspector Training</td>
<td>1</td>
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<tr>
<td>LSI 151</td>
<td>Basic Safe Penetration</td>
<td>1</td>
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<tr>
<td>LSI 152</td>
<td>Combination Lock Manipulation</td>
<td>1</td>
</tr>
<tr>
<td>LSI 153</td>
<td>Safe Lock Servicing - Mechanical and Electronic</td>
<td>2</td>
</tr>
<tr>
<td>LSI 160</td>
<td>Fundamentals of Electricity</td>
<td>2</td>
</tr>
<tr>
<td>LSI 170</td>
<td>Electronic Access Control</td>
<td>2</td>
</tr>
<tr>
<td>LSI 180</td>
<td>Security and Crime Prevention Management</td>
<td>1</td>
</tr>
<tr>
<td>LSI 185</td>
<td>Security and Crime Prevention Countermeasures</td>
<td>1</td>
</tr>
<tr>
<td>LSI 190</td>
<td>Security Hardware &amp; Bypass Techniques</td>
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<tr>
<td>LSI 195</td>
<td>Tactical Lock (restricted enrollment)</td>
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Safe & Lock Technician - 4301123040

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>LSI 150</td>
<td>Professional Industrial Locksmithing</td>
<td>4</td>
</tr>
<tr>
<td>LSI 153</td>
<td>Safe Lock Servicing</td>
<td>2</td>
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</table>

Total Credits 16

Electives: A minimum of 10 credit hours must be taken from this list of electives.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSI 110</td>
<td>Security Surveys</td>
<td>2</td>
</tr>
<tr>
<td>LSI 130</td>
<td>GSA: Lock, Vault &amp; Container</td>
<td>4</td>
</tr>
<tr>
<td>LSI 151</td>
<td>Basic Safe Penetration</td>
<td>1</td>
</tr>
<tr>
<td>LSI 152</td>
<td>Combination Lock Manipulation</td>
<td>1</td>
</tr>
<tr>
<td>LSI 160</td>
<td>Fundamentals of Electricity</td>
<td>2</td>
</tr>
<tr>
<td>LSI 170</td>
<td>Electronic Access Control</td>
<td>2</td>
</tr>
<tr>
<td>LSI 182</td>
<td>Managing Security Operations</td>
<td>2</td>
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</table>

Certificate

Social Media Marketing -1110053009

General Education Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 125</td>
<td>Social Media Marketing: Fundamental Concepts, Skills and Strategies</td>
<td>3</td>
</tr>
<tr>
<td>BAS 126</td>
<td>Social Media Marketing: Project Management and Implementation Strategies</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal 6

Social Media Marketing

The Social Media Marketing program will provide students who are interested in social media technology, and the specific way it can be utilized for maximizing visibility and functionality within the business sector, a holistic approach to running a social media marketing campaign. This program will provide not only an introduction to social media technology, but also a foundation for students to learn everything from terminology to multi-platform engagement techniques.

Certificate

Surgical First Assisting

The Surgical First Assistant provides aid in exposure, hemostasis, and other technical functions that will help the surgeon carry out a safe operation with optimal results for the patient. This role will vary considerably with the surgical operation, specialty area, and type of facility. Clinical skills performed under direct supervision of the surgeon include the following: positioning the patient, preparing the skin, providing visualization of the operative site, utilizing appropriate techniques to assist with hemostasis, participating in volume replacement or auto transfusion techniques as appropriate, utilizing appropriate techniques in the closure of body planes, selecting and applying appropriate wound dressings and providing assistance in securing drainage system to tissue.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical First Assistant Program are required to achieve a minimum grade of “C” in each Surgical First Assistant course. Graduates from the program are eligible to take the certifying exams offered by the National Surgical Assistant Association (CSA) or the National Board of Surgical Technologists and Surgical Assistants (CSFA).

Associate in Applied Science

Surgical First Assisting - 5109097039

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
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<tr>
<td>MAT 110</td>
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Total Credit Hours 61-64

Technical Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SUR 110</td>
<td>Surgical Technology Fundamentals</td>
<td>9</td>
</tr>
<tr>
<td>SUR 101</td>
<td>Surgical Technology Fundamentals/Lab</td>
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</tr>
<tr>
<td>SUR 130</td>
<td>Principles of Surgical Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>SUR 200</td>
<td>Surgical Technology Advanced Theory</td>
<td>9</td>
</tr>
<tr>
<td>SUR 201</td>
<td>Surgical Technology Skills Practicum II</td>
<td>6</td>
</tr>
<tr>
<td>SUR 275</td>
<td>Surgical Technology Advanced Clinical Practicum</td>
<td>2</td>
</tr>
<tr>
<td>SUR 280</td>
<td>Surgical Anatomy</td>
<td>5</td>
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<tr>
<td>SUR 284</td>
<td>Principles of Surgical Assisting</td>
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<tr>
<td>SUR 295</td>
<td>Surgical First Assistant Clinical</td>
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<tr>
<td>SUR 282</td>
<td>Perioperative Bioscience</td>
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</tr>
<tr>
<td>SUR 296</td>
<td>Surgical First Assistant Practicum</td>
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<tr>
<td>SUR 297</td>
<td>Surgical First Assistant Practicum II</td>
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</table>

Subtotal 45-48

Total Credit Hours 61-64

For program admission, student must be a certified Surgical Technologist or an RN with operating room experience OR consent of instructor.

For program admission, CPR or BLS certificate must be obtained prior to enrolling in the course; certification must be kept current throughout the program.

NOTE: BIO 137 & BIO 139 may be substituted for BIO 135.

Certificate

Surgical First Assisting - 5109093020

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 280</td>
<td>Surgical Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>SUR 282</td>
<td>Perioperative Bioscience</td>
<td>3</td>
</tr>
<tr>
<td>SUR 284</td>
<td>Principles of Surgical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>SUR 295</td>
<td>Surgical First Assistant Clinical</td>
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<td>SUR 296</td>
<td>Surgical First Assistant Practicum</td>
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<tr>
<td>SUR 297</td>
<td>Surgical First Assistant Practicum II</td>
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</table>

Total Credit Hours 16

CPR or BLS certificate must also be obtained prior to enrolling in the program; certification must be kept current throughout the program.

For program admission, student must be a certified Surgical Technologist or an RN with operating room experience. Student must provide current documentation of certificate/ licensure.
Surgical Technology

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings such as medical offices, outpatient clinics, and the operating room.

The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works under the supervision of a surgeon to ensure that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety.

A surgical technologist possesses expertise in the theory and application of sterile and aseptic techniques and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician’s performance of invasive therapeutic and diagnostic procedures.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical Technology Program are required to achieve a minimum grade of “C” in each course required for the credential. Students who withdraw from or earn less than a “C” in any course with a Surgical Technology prefix will be dropped from the Surgical Technology program and must reapply for admission. CPR (for Healthcare Professionals) requirements must be successfully completed prior to enrolling in the first surgical technology course and must be kept current throughout the program.

Students who have completed program requirements must sit for the certifying examination offered by the National Board for Certification in Surgical Technology and Surgical Assisting (NBSTSA), 6 West Dry Creek Circle, Suite 100, Littleton, CO 80120; Phone: (800) 707 0057; www.nbtsa.org.

The following programs hold accreditation from the Commission on Accreditation of Allied Health Education Programs (CAAHEP) 1361 Park Street, Clearwater Florida 33756; (727) 210 2350; www.caahep.org who accredits programs upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), 6 West Dry Creek Circle, Suite 110; Littleton, CO 80120; Phone: (303) 694 9262; www.arcst.org as Ashland Community and Technical College Bluegrass Community and Technical College, Hazard Community and Technical College, Jefferson Community and Technical College, Madisonville Community College, Owensboro Community and Technical College, Somerset Community College, Southcentral Kentucky Community and Technical College, Southeast Kentucky Community and Technical College, and West Kentucky Community and Technical College.

Associate in Applied Science

Surgical Technology - 5109097019

(Offered at BLC, BSC, HZC, JFC, MDC, OWC, SEC, SKY, SMC, WKC)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>4</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<td>Heritage/Humanities</td>
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A total of 10 credit hours must be completed from the following practicum courses:

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<tbody>
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<td>SIR 125</td>
<td>Surgical Technology Skills Practicum I</td>
<td>2-3</td>
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<td>SIR 201</td>
<td>Surgical Technology Skills Practicum II</td>
<td>6-7</td>
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<td>SIR 275</td>
<td>Surgical Technology Advanced Clinical Practicum</td>
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Elective(s):

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SIR 103</td>
<td>Surgical Technology Didactic Practicum</td>
<td>(1)</td>
</tr>
<tr>
<td>SIR 270</td>
<td>Pathophysiology for Surgical Technology OR</td>
<td>(2)</td>
</tr>
<tr>
<td>MAI 200</td>
<td>Pathophysiology for Medical Assistants</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>(3)</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
<td>(3)</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>(3)</td>
</tr>
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</table>

Note:

CPR certificate must be obtained prior to enrolling in the first Surgical Technology course and certification must be kept current throughout the Program.

Digital literacy must be demonstrated either by competency exam or by completing a digital literacy course.

Diploma

Surgical Technologist - 5109094019

(Offered at ASC, BSC, JFC, MDC, OWC)

General Education:

Area 1 =

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
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Area 2 =

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<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Lab OR</td>
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<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
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<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
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Technical Courses:

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<tbody>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin OR</td>
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<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>(3)</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
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<tr>
<td>SIR 109</td>
<td>Introduction to Surgical Technology AND</td>
<td>(3)</td>
</tr>
<tr>
<td>SIR 110</td>
<td>Surgical Technology Fundamentals OR</td>
<td>(9)</td>
</tr>
<tr>
<td>SIR 100</td>
<td>Surgical Technology Fundamentals/Theory AND</td>
<td>12</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BIO 227</td>
<td>Principles of Microbiology with Laboratory OR</td>
<td>(5)</td>
</tr>
<tr>
<td>BIO 118</td>
<td>Microbes and Society</td>
<td>(3)</td>
</tr>
<tr>
<td>SIR 101</td>
<td>Surgical Technology Fundamentals Lab</td>
<td>1</td>
</tr>
<tr>
<td>SIR 130</td>
<td>Principles of Surgical Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>SIR 200</td>
<td>Surgical Technology Advanced Theory</td>
<td>9</td>
</tr>
<tr>
<td>WPP 200</td>
<td>Workplace Principles OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 250</td>
<td>Business Employability Seminar</td>
<td>(1)</td>
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</tbody>
</table>
A total of 10 credit hours must be completed from the following practicum courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SUR 125</td>
<td>Surgical Technology Skills Practicum I</td>
<td>2-3</td>
</tr>
<tr>
<td>SUR 201</td>
<td>Surgical Technology Skills Practicum II</td>
<td>6-7</td>
</tr>
<tr>
<td>SUR 275</td>
<td>Surgical Technology Advanced Clinical Practicum</td>
<td>2</td>
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</table>

Subtotal: 38-48

Total Credits: 45-59

Elective(s):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 103</td>
<td>Surgical Technology Didactic Practicum</td>
<td>(1)</td>
</tr>
<tr>
<td>SUR 270</td>
<td>Pathophysiology for the Surgical Technologist OR</td>
<td>(2)</td>
</tr>
<tr>
<td>MAI 200</td>
<td>Pathophysiology for the Medical Assistant</td>
<td>(3)</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>(3)</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
<td>(3)</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Note:

CPR certificate must be obtained prior to enrolling in the first Surgical Technology course and certification must be kept current throughout the Program.

Digital literacy must be demonstrated either by competency exam or by completing a digital literacy course.

Students successfully completing SUR 109 and SUR 110 are not required to take a microbiology course for the diploma option.

Certificates

Surgical Technology Bridge Program - 5109093019

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STN 100</td>
<td>Surgical Technology Fundamentals for Nurses</td>
<td>7</td>
</tr>
<tr>
<td>STN 101</td>
<td>Surgical Technology Lab for Nurses</td>
<td>1</td>
</tr>
<tr>
<td>STN 102</td>
<td>Surgical Technology Clinical for Nurses</td>
<td>6</td>
</tr>
<tr>
<td>STN 110</td>
<td>Surgical Technology Procedures for Nursing</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Credit Hours: 18

Surveying and Mapping Technology

The curriculum is arranged for students to gain employment in surveying and mapping. It allows students to gain the educational requirements to sit for the licensing exams in the state of Kentucky. Classes emphasize solving problems encountered in the field of Surveying & Mapping Technology. Students perform routine topographical, boundary and other mapping surveys, as well as Global Positioning (GPS) surveys. Students establish essential data, keep notes, develop preliminary sketches, and prepare working drawings, profile and section maps, volume calculations, and topographic maps. Students use computer mapping and coordinate geometry software to accomplish these tasks.

Associate in Applied Science

Surveying and Mapping Technology - 1511027029

(Offered at BSC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics or Higher Level Quantitative Reasoning Course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal: 15

Required Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>SMT 110</td>
<td>Principles of Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
<tr>
<td>SMT 160</td>
<td>Construction Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 210</td>
<td>Advanced Surveying Measurement</td>
<td>3</td>
</tr>
</tbody>
</table>

SMT 220 | Surveying Lab .................................. | 3 |
SMT 230 | Land Boundary Location ....................... | 3 |
SMT 250 | Mine Surveying .................................. | 3 |
SMT 270 | Professional Ethics and Conduct for Land Surveyors | 3 |
SMT 290 | Boundary Law .................................... | 3 |

Technical Electives Approved by Program Coordinator: 12

Subtotal: 45

Diploma

Surveying Technician III - 1511024019

(Offered at BSC)

Required General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
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Subtotal: 6

Required Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>SMT 110</td>
<td>Principles of Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
<tr>
<td>SMT 160</td>
<td>Construction Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 210</td>
<td>Advanced Surveying Measurement</td>
<td>3</td>
</tr>
</tbody>
</table>

SMT 220 | Surveying Lab .................................. | 3 |
SMT 230 | Land Boundary Location ....................... | 3 |

Technical Electives Approved by Program Coordinator: 9

Subtotal: 33

Diploma Total: 39

Certificate

Surveying Technician II - 1511023029

(Offered at BSC, HZC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMT 110</td>
<td>Principles of Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
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</tbody>
</table>

Technical Electives Approved by Program Coordinator: 3

Certificate Total: 12

Surveying Technician I - 1511020319

(Offered at BSC, HZC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMT 110</td>
<td>Principles of Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

Certificate Total: 6

Technical Theatre

The Technical Theatre Certificate will prepare students for an entry level position as a theatre technician and/or advanced technical theatre studies.

Certificates

Technical Theatre -5005013019

(Offered at OWC)

General Education Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 101</td>
<td>Introduction to Theatre: Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking (OR)</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Intro to Interpersonal Communication (OR)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
</tbody>
</table>
Technical Core
THA 150 Fundamentals of Production ........................................... 3
THA 250 Stage Electrics .............................................................. 3
THA 260 Stagecraft ................................................................. 3
THA 141 Costuming and Make-up for the Stage .................................. 3

Technical Electives (Select one of the following)
ART 113 3-Dimensional Design ..................................................... 3
ELT 110 Circuits I ................................................................. 5
DFT 102 Drafting Fundamentals .................................................. 4
WLD 152 Basic Welding B .......................................................... 5
CAR 126/127 Introduction to Construction/Intro to Construction Lab .... 3/1
THA 192 Production Practicum .................................................. 1
Other courses as approved by the program coordinator
Total 19-24

Truck Driver Training
Prepares students to drive tractor trailer trucks, apply their knowledge of commercial driving regulations, prepare receipts for loads, maintain truck logs according to state and federal regulations, load and unload trucks, inspect trucks and their equipment. The Transportation Specialist certificate will also include the operation of basic heavy equipment in addition to the routine and minor maintenance and repairs on diesel engines.

Certificates
Tractor Trailer, CDLA I - 4902053010
(Offered at BSC, GTW, HPC, HZC, MYC, SMC, WKC)
TRL 100 Truck Driving .................................................................... 6
Total Credits 6

Tractor Trailer, CDLA II - 4902053029
(Offered at JFC)
TNT 110 Basic Operations ........................................................... 3
TNT 120 Safe Operating Practices .................................................. 3
TNT 210 Advanced Operating Practices .......................................... 1
TNT 220 Vehicle Systems and Reporting Malfunction ...................... 3
TNT 250 Internship ........................................................................ 4
Total Credits 14

Tractor Trailer, CDLA III - 4902053039
(Offered at BSC)
TRK 110 Driver Preparation .......................................................... 3
TRK 120 Trucking Safety .............................................................. 3
TRK 130 Instrumentation ............................................................... 3
TRK 140 Systems Check ............................................................... 1
TRK 150 CDL Training ................................................................. 3
TRK 160 Combined Driving .......................................................... 2
TRK 216 Advanced Driver Preparation .......................................... 1
TRK 220 Advanced Trucking Safety .............................................. 3
TRK 230 Advanced Controls .......................................................... 1
TRK 240 System Inspections .......................................................... 1
TRK 250 Advanced CDL Preparation ............................................. 1
TRK 260 Advanced Combined Driving .......................................... 2
Total Credits 24

Veterinary Technology
The Veterinary Technology program will provide students with the skills and knowledge needed to work as a professional veterinary technician. Areas of study include anatomy, physiology, microbiology, clinical techniques, office and hospital procedures, client relations and communication, pharmacology, anesthesiology, surgical and medical nursing, radiology and clinical pathology training. The Veterinary Technology program will provide students with “real world” clinical and lab experiences to develop the skills needed to become a valued professional in the field.

Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2013.

Associate in Applied Science
Veterinary Technology - 5108087019
(Offered at OWC)

General Education
ENG 101 Writing I ......................................................................... 3
PHI 110 Medical Ethics ............................................................... 3
MAT 110 Technical Mathematics OR ........................................... 3
MAT 150 College Algebra ............................................................ 3
BIO 112 Introduction to Biology ................................................... 3
BIO 113 Introduction to Biology Lab ............................................. 3
SOC 101 Social/Behavioral Sciences .............................................. 3
COM 252 Introduction to Interpersonal Communication .................. 3
Subtotal 19

Required Technical Courses
Digital Literacy .............................................................................. 0-3
AGR 240 Introduction to Animal Science ........................................ 3
AGR 280 Livestock Management .................................................. 3
VET 110 Introduction to Veterinary Technology ............................. 5
VET 112 Veterinary Microbiology ................................................ 4
VET 114 Animal Anatomy & Physiology ....................................... 5
VET 120 Clinical Practicum I ........................................................ 2
VET 130 Veterinary Lab Procedures I ............................................ 5
VET 210 Pharmacology ............................................................... 3
VET 220 Parasitology and Clinical Lab Techniques ......................... 5
VET 230 Veterinary Lab Procedures II .......................................... 5
VET 240 Veterinary Lab Procedures III ......................................... 5
VET 250 Clinical Practicum II ....................................................... 5
Subtotal 50-53
AAS Total 69-72
Visual Communication

Five programs are offered under the broader heading of Visual Communication. They are Communication Arts Technology, Design & Technology, Multimedia, Printing, and Visual Arts.

Visual Communication:
Communication Arts Technology

The Communication Arts Technology program provides students with the knowledge, skills, and a portfolio needed for entry-level employment as a graphic designer, commercial photographer, web designer, videographer, or video editor. These fields involve the use of specialized software combined with creativity, design, and problem solving skills to communicate an effective visual message for TV, web and interactive media, product packaging, and advertising layout. This program focuses on developing the creativity and software skills necessary to be competitive in these fields. Many courses include hands-on lab hours with one-on-one assistance from the instructors. The program is completed with an internship in the student’s specialty field that allows the student to transfer academic skills to a professional environment. Students and graduates of the Communication Arts Technology program have won numerous design, photography, and video awards in the creative industry.

Employment of graphic designers, photographers, web designers, videographers, and video editors is expected to grow as demand for their products continues to increase from advertisers, publishers, video production studios, and computer design firms. Graduates may be employed as graphic designers at newspapers, print shops, advertising agencies, photographic studios, multimedia shops, web design shops, television broadcasting stations, film and video production studios, department stores, corporations or non-profit agencies.

All technical courses must be completed with “C” (2.0) or greater to advance in Visual Communication programs.

Associate in Applied Science
Communication Arts Technology - 5004067019
(Offered at JFC)

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 106</td>
<td>Renaissance Through Modern Art History</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
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<td>Total General Education Requirements</td>
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</table>

Core Communication Art Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 150</td>
<td>Mac Basics OR any Computer/Digital Literacy equivalent*</td>
<td>3</td>
</tr>
<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
<td>3</td>
</tr>
<tr>
<td>ART 110</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 132</td>
<td>Illustration for Advertising</td>
<td>3</td>
</tr>
<tr>
<td>VCA 170</td>
<td>Advertising Design I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 171</td>
<td>Advertising Design II</td>
<td>3</td>
</tr>
<tr>
<td>VCA 160</td>
<td>Commercial Photography I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 161</td>
<td>Commercial Photography II</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
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<td>Total Core Communication Arts Courses &amp; Gen Ed</td>
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</table>

Advertising Design Track - 500406701
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCA 106</td>
<td>Creative Typographic Design</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>VCA 270</td>
<td>Advertising Design III</td>
<td>4</td>
</tr>
<tr>
<td>VCA 271</td>
<td>Advertising Design IV</td>
<td>4</td>
</tr>
<tr>
<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298</td>
<td>Practicum</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
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</tr>
<tr>
<td></td>
<td>Total Credit Hours for Advertising Design Track</td>
<td>63-66</td>
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</tbody>
</table>

Commercial Photography Track - 500406702
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 266</td>
<td>Advanced Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>VCA 260</td>
<td>Commercial Photography III</td>
<td>4</td>
</tr>
<tr>
<td>VCA 261</td>
<td>Commercial Photography IV</td>
<td>4</td>
</tr>
<tr>
<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298</td>
<td>Practicum</td>
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<tr>
<td></td>
<td>Subtotal</td>
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<td>Total Credit Hours for Commercial Photography Track</td>
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</table>

Digital Filmmaking Track - 500406703
(Offered at JFC)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 207</td>
<td>Beginning Workshop in Imaginative Writing: Scriptwriting</td>
<td>3</td>
</tr>
<tr>
<td>MUS 120</td>
<td>Music Technology I</td>
<td>3</td>
</tr>
<tr>
<td>THA 126</td>
<td>Acting I: Fundamentals of Acting</td>
<td>3</td>
</tr>
<tr>
<td>VCA 151</td>
<td>Digital Filmmaking I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 152</td>
<td>Digital Filmmaking II</td>
<td>3</td>
</tr>
<tr>
<td>VCA 251</td>
<td>Digital Filmmaking III</td>
<td>3</td>
</tr>
<tr>
<td>VCA 252</td>
<td>Digital Filmmaking IV</td>
<td>3</td>
</tr>
<tr>
<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298</td>
<td>Practicum</td>
<td>2</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Total Credit Hours for Digital Filmmaking Track</td>
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</table>

Webpage Design Track -500406704
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 205</td>
<td>Introduction to HTML OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development</td>
<td>(3)</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 180</td>
<td>Intermediate Web Design</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 230</td>
<td>Advanced Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>CIT 140</td>
<td>JavaScript I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298</td>
<td>Practicum</td>
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<tr>
<td></td>
<td>Subtotal</td>
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</tr>
<tr>
<td></td>
<td>Total Credit Hours for Webpage Design Track</td>
<td>64-67</td>
</tr>
</tbody>
</table>

*Either successfully passing computer competency exam or taking an approved computer/digital literacy course.
Visual Communication:
Design & Technology

Design & Technology emphasizes creative problem solving and insight into the mix of art, design and technical competence. This program includes a Graphic Design track, a Mixed Media Design track, and a Production Design track, with a core of courses common to all. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to drawing, design concepts, and computer graphics. In addition to core courses, students will take specialty courses for their selected option. Students may also choose to receive a certificate in digital photography.

The Graphic Design option emphasizes several aspects of graphic design and focuses on the development of creativity and software skills necessary to be competitive in the field.

The Mixed Media Design option provides students with a mix of any courses within the visual communication program or approved electives that serves the interests and skills of the student.

The Production Design option provides students training in the operation of various print production and graphic production equipment. Students will learn skills to design and produce a wide variety of printed materials, promotional items, and signage.

Prospective employment opportunities are in advertising agencies, graphic design studios, news media, printing and signage companies, department stores, and other creative services departments and businesses, including web design and video production studios.

All technical courses must be completed with “C” (2.0) or greater to advance in all Visual Communication programs.

Associate in Applied Science
Design & Technology – 5004097019
(Offered at BSC)

General Education Requirements

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<th>Course Name</th>
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Required Technical Core:

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<td>VCA 105</td>
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<td>VCC 110</td>
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Graphic Design Track – 500409701
(Offered at UCC)

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Mixed Media Design Track – 500409705
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Production Design Track – 500409703
(Offered at UCC)

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*Approved Technical Electives* include any VCA, VCC, or VCM course and the following IMD courses: IMD 133, IMD 180, IMD 230, IMD 232, IMD 240, IMD 250, IMD 255, and IMD 258.

Diplomas

Graphic Design - 5004094059
(Offered at BSC)

Required General Education

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**Required Technical Core:**

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**Approved Technical Electives**

VCC 214 Introduction to Visual Communication
VCC 216 Production Design I
VCC 218 Production Design III

**Subtotal**

**Graphic Design Track – 500409401** *(Offered at BSC)*

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**Total Credits for Graphic Design Track Diploma** 54-57

**Mixed Media Design Track – 500409402** *(Offered at BSC)*

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**Total Credits for Mixed Media Design Track Diploma** 54-57

**Production Design Track – 500409403** *(Offered at BSC)*

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**Total Credits for Production Design Track Diploma** 54-57

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**Digital Photography – 5004093069** *(Offered at BSC)*

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**Total Credits for Digital Photography Certificate** 12

**Mixed Media Design Assistant – 5004093099** *(Offered at BSC)*

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**Total Credits for Mixed Media Design Assistant Certificate** 18

**Production Design Assistant – 5004093109** *(Offered at BSC)*

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<td>VCC 110</td>
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<td>VCC 125</td>
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**Total Credits for Production Design Assistant Certificate** 12

---

**Visual Communication: Multimedia**

The Visual Communication: Multimedia program provides students the necessary skills to prepare and produce a wide variety of multimedia presentations. This program includes tracks in Animation, Web Design, Digital Design, Video Production, and Multimedia. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to typography, design concepts, color theory, and computer graphics. In addition to core courses, students will take specialty courses for their selected track.

Prospective employment opportunities are in advertising agencies, graphic design studios, news media, printing and signage companies, department stores, and other creative services departments and businesses, including web design and video production studios.

All technical courses must be completed with "C" (2.0) or greater to advance in all Visual Communication programs.

---

**Associate in Applied Science**

**Multimedia - 1003047019** *(Offered at HZC, SMC, WKC)*

**General Education Requirements:**

<table>
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<th>Category</th>
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<td>Natural Sciences</td>
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<td>Heritage/Humanities</td>
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**Subtotal**

212
**Technical Core**

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<td>VCA 108</td>
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<tr>
<td>VCC 110</td>
<td>Design Concepts</td>
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<td>VCC 125</td>
<td>Computer Graphics I</td>
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<td>VCC 150</td>
<td>Digital Literacy course</td>
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<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
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<td>VCC 200</td>
<td>Computer Illustration</td>
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<tr>
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<td>Acrobat Basics</td>
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<td>VCA 280</td>
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**Animation Track - 100304701**

*(Offered at WKC)*

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<th>Course Title</th>
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<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
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<td>VCM 210</td>
<td>3-D Animation</td>
<td>3</td>
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<tr>
<td>VCM 215</td>
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<td>VCM 225</td>
<td>Advanced 3-D Animation</td>
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**Total Credits for AAS: Multimedia - Animation Track 66**

**Web Design Track - 100304702**

*(Offered at HZC, WKC)*

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<td>VCM 115</td>
<td>2-D Animation</td>
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<td>VCM 220</td>
<td>Webpage Design</td>
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**Total Credits for AAS: Multimedia - Web Design Track 66**

**Digital Design Track - 100304703**

*(Offered at WKC)*

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>VCC 220</td>
<td>InDesign Basics</td>
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<td>VCC 266</td>
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**Total Credits for AAS: Multimedia - Digital Design Track 66**

**Video Production Track - 100304705**

*(Offered at HZC, WKC)*

<table>
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<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
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<td>VCM 125</td>
<td>Foundations of Video Production</td>
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**Total Credits for AAS: Multimedia - Video Production Track 66**

**Multimedia Track - 100304706**

*(Offered at HZC, WKC)*

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**Total Credits for AAS: Multimedia – Multimedia Track 66**

**General Education Requirements**

- Written Communication OR
- Oral Communications OR
- Humanities/Heritage
- Quantitative Reasoning OR
- Natural Sciences OR
- Social/Behavioral Sciences

**Technical or Support Courses**

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**Diploma Multimedia - 1003044019**

*(Offered at WKC)*

**Animation Track - 100304403**

*(Offered at WKC)*

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<tr>
<td>VCM 225</td>
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</table>

**Total for Animation Track 57**

**Web Design Track - 100304402**

*(Offered at WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>VCC 255</td>
<td>Emerging Media Design</td>
<td>3</td>
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<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
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<tr>
<td>VCM 230</td>
<td>Advanced Webpage Design</td>
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**Total for Web Design Track 57**

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213
### Digital Design Track - 100304404
(Offered at WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>VCC 220</td>
<td>InDesign Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 266</td>
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**Total for Digital Design Diploma** 57

### Video Production Track - 100304406
(Offered at WKC)

<table>
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<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
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<td>Emerging Media Design</td>
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<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
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<tr>
<td>VCM 125</td>
<td>Foundations of Video Production</td>
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<tr>
<td>VCM 140</td>
<td>Digital Video</td>
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<tr>
<td>VCM 215</td>
<td>After Effects</td>
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<tr>
<td>VCM 240</td>
<td>Advanced Digital Video</td>
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**Total for Audio/Video Track** 57

### Multimedia Track - 100304401
(Offered at WKC)

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<td>3</td>
</tr>
<tr>
<td>VCC 266</td>
<td>Advanced Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>VCC 255</td>
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<td>3</td>
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<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 140</td>
<td>Digital Video</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
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**Total Credits for Multimedia Track** 57

### Certificates

#### Animation - 100304309
(Offered at JFC, SMC, WKC)

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<td>VCA 108</td>
<td>Color Theory</td>
<td>3</td>
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<td>VCC 110</td>
<td>Design Concepts</td>
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<tr>
<td>VCC 125</td>
<td>Computer Graphics I</td>
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<td>VCC 166</td>
<td>Photoshop Basics</td>
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<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
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</tr>
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### Visual Communication: Printing

Printing is an option under the broader heading of Visual Communication. The Digital Production Artist curriculum emphasizes technical competence to better prepare students for successful careers in designing and preparing artwork for the print media. Laboratory experiences in page layout, computer illustration, photo imaging, and PDF files are combined with foundational courses in design. All technical courses must be completed with ‘C’ (2.0) or greater to advance in all Visual Communication programs.

### Associate in Applied Science

#### Printing - 1003017019

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<thead>
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<th>Course Name</th>
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<td></td>
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<td></td>
<td>Social/Behavioral Sciences</td>
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<tr>
<td></td>
<td>Heritage/Humanities</td>
<td>3</td>
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<td>ENG 101</td>
<td>Writing I</td>
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#### General Education Requirements

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<td></td>
<td>Total for Video Production Track - 100304406</td>
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Required Core:

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<tr>
<td>VCA 108</td>
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</tr>
<tr>
<td>VCA 120</td>
<td>Digital Photography</td>
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<tr>
<td>VCC 100</td>
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<tr>
<td>VCC 105</td>
<td>Fundamentals of Typography</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 200</td>
<td>Computer Illustration</td>
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<td>VCC 220</td>
<td>InDesign Basics</td>
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<tr>
<td>VCC 230</td>
<td>Advanced InDesign Basics</td>
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<td>VCC 266</td>
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<td>VCC 270</td>
<td>Acrobat Basics</td>
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<td>VCP 285</td>
<td>Electronic Prepress</td>
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<td>COE 199</td>
<td>Cooperative Education OR</td>
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<td>VCC 297</td>
<td>Internship OR</td>
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Instructor Approved Electives

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Total 15

Technical or Support Courses

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<th>Course Description</th>
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<tbody>
<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
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<td>VCC 105</td>
<td>Fundamentals of Typography and Design</td>
<td>3</td>
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<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 220</td>
<td>InDesign Basics</td>
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Approved Electives

Total Electives 6

Total for AAS Visual Communication: Printing-Digital Production Artist 60-63

Diplomas

Digital Production Artist - 1003014019

(Offered at BSC, JFC, SMC)

General Education Requirements

<table>
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<th>Requirement</th>
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<td>Oral Communications OR</td>
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<tr>
<td>Humanities/Heritage</td>
<td>3</td>
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<td>Quantitative Reasoning OR</td>
<td>3</td>
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<td>Natural Sciences</td>
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Subtotal 6

Technical or Support Courses

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<tr>
<th>Course Code</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>VCA 108</td>
<td>Digital Color Theory</td>
<td>3</td>
</tr>
<tr>
<td>VCA 120</td>
<td>Digital Photography</td>
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<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
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</tr>
<tr>
<td>VCC 105</td>
<td>Fundamentals of Typography</td>
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<td>VCC 200</td>
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<td>VCC 230</td>
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<td>VCC 266</td>
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<td>VCC 270</td>
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<td>VCP 285</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education OR</td>
<td>3</td>
</tr>
<tr>
<td>VCC 297</td>
<td>Internship OR</td>
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</tr>
<tr>
<td>VCC 298</td>
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Approved Electives

Subtotal 42-45

Total for Digital Production Artist Diploma 48-51

Certificates

Digital Production Assistant - 1003013019

(Offers at BSC, JFC, SMC, WKC)

Volumetric Medical Imaging - 5109113019

(Offers at BSC, JFC, SMC, WKC)

Technical or Support Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 100</td>
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<td>VCC 105</td>
<td>Fundamentals of Typography and Design</td>
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<td>VCC 220</td>
<td>InDesign Basics</td>
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Total 15

Visual Communication: Visual Arts

Students desiring certificates in two-dimensional arts (such as painting or photography), or three-dimensional arts (such as sculpture or ceramics), may select this avenue and/or may participate in the full degree concurrently. The certificates are designed to meet the needs of the many non-traditional and part-time students and artisans of Kentucky. The certificate option will also help introduce the program to students who are not immediately willing to commit to a degree program but whom still desire professional training in the visual arts.

Certificates

2-Dimensional Studies - 5007063019

(Offers at JFC)

<table>
<thead>
<tr>
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<th>Course Description</th>
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<td>ART 112</td>
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<tr>
<td>ART 105</td>
<td>Ancient through Medieval Art History OR</td>
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<td>ART 106</td>
<td>Renaissance through Modern Art History OR</td>
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Total 9

3-Dimensional Studies - 5007063029

(Offers at JFC)

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<tbody>
<tr>
<td>ART 110</td>
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<td>ART 105</td>
<td>Ancient through Medieval Art History OR</td>
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</tr>
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<td>ART 106</td>
<td>Renaissance through Modern Art History OR</td>
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Total 9

Volumetric Medical Imaging

The Volumetric Medical Imaging (VMI) Certificate is designed for students who are certified radiologic technologists. Students will learn to identify anatomical features in cross section and volume, reconstruct volumetric data from 2D radiological data, recognize pathologic anatomy and manipulate volumes for physicians to review. Graduates will be qualified to seek employment in radiology departments of hospitals or with private companies who contract this service. Academic Program Coordinator permission is required to enter the certificate program. Prerequisites: Basic computer literacy, such as CIS 100 or equivalent, BIO 137, 139.

Certificate

Volumetric Medical Imaging - 5109113019

(Offers at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I*</td>
<td>4</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II*</td>
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<td>VMI 200</td>
<td>Sectional Anatomy &amp; Pathology I</td>
<td>4</td>
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<tr>
<td>VMI 201</td>
<td>Sectional Anatomy &amp; Pathology II</td>
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</tr>
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<td>VMI 210</td>
<td>Volumetric Medical Imaging I</td>
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<tr>
<td>VMI 211</td>
<td>Volumetric Medical Imaging II</td>
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</table>

Total Credits 24

*BIO 137 & 139 must have been completed within the last 10 years.
The Welding Technology Program is dedicated to welding education, technology and student success. Students in this program will learn various welding techniques, careers and the skills needed to be successful in the Welding Technology field. Welding occupations are primarily concerned with joining, surfacing, or repairing structures or parts made of metal or other weldable materials. The skills and knowledge needed to determine the appropriate welding technique required for a specific project and to successfully perform that technique are gained through course work and practical experience. The program offers a wide range of credentials including the Associate in Applied Science Degree, Diploma, and eleven certificates in Welding Technology.

### Associate in Applied Science

#### Welding Technology - 4805087019

(Offered at BLC, BSC, ELC, JFC, OWC, SKY)

<table>
<thead>
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<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 110</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics OR</td>
<td>(3)</td>
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<td>MAT 146</td>
<td>Contemporary College Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>(3)</td>
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<td>COM 252</td>
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#### Required

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<td>MAT 116</td>
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<td>MAT 146</td>
<td>Contemporary College Mathematics OR</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
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<td>MA 109</td>
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<td>BEX 100</td>
<td>Basic Electricity for Non-Majors</td>
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<td>Welding Practicum OR</td>
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<tr>
<td>WLD 299</td>
<td>Cooperative Work Experience</td>
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#### Computer/Digital Literacy

Required for Associate in Applied Science by successfully completing a computer/digital literacy course.

### Diploma

#### Combination Welder - 4805084029

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
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<tr>
<td>MAT 110</td>
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<td>MAT 116</td>
<td>Technical Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 146</td>
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#### General Education Total Credits

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<tr>
<td>TEC 200</td>
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<tr>
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<td>MAT 116</td>
<td>Technical Mathematics OR</td>
<td>(3)</td>
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<tr>
<td>MAT 146</td>
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<tr>
<td>MAT 150</td>
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#### Technical Electives:

<table>
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<td>WLD 298</td>
<td>Welding Practicum OR</td>
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</tr>
<tr>
<td>WLD 299</td>
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#### Total Credits

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<th>Title</th>
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</thead>
<tbody>
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<td>3</td>
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<tr>
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<td>(3)</td>
</tr>
<tr>
<td>MA 109</td>
<td>College Algebra</td>
<td>(3)</td>
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</table>

#### Computer/Digital Literacy

Required for Diploma by successfully completing a computer/digital literacy course.

### Diplomas

<table>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
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</tr>
<tr>
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</tr>
<tr>
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#### Subtotal

$\text{Total Credits} = 60 – 68$

### Diplomas

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<th>Credits</th>
</tr>
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<tbody>
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#### General Education Total Credits

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<tr>
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<tr>
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</tr>
<tr>
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#### Technical Electives:

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<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
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<tr>
<td>WLD 170</td>
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</tr>
<tr>
<td>WLD 171</td>
<td>Blueprint Reading for Welding</td>
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</tr>
<tr>
<td>WLD 220</td>
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<tr>
<td>WLD 221</td>
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</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>(3)</td>
</tr>
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</table>

#### Computer/Digital Literacy

Required for Diploma by successfully completing a computer/digital literacy course.

**NOTE:** Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.
Certificates

**Welder Helper - 4805083129**
*(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*
- WLD 151 Basic Welding A OR .................................................. 2
- WLD 120 Shielded Metal Arc-Welding (SMAW) AND ..............(2)
- WLD 121 Shielded Metal Arc-Welding (SMAW) Fillet Lab OR ..........(3)
- WLD 130 Gas Tungsten Arc-Welding (GTAW) AND .............. (2)
- WLD 131 Gas Tungsten Arc-Welding (GTAW) Fillet Lab OR ..........(3)
- WLD 140 Gas Metal Arc-Welding (GMWA) AND ..................... (2)
- WLD 141 Gas Metal Arc-Welding (GMWA) Fillet Lab OR ..........(3)
- WLD 152 Basic Welding B OR ..................................................(5)
- IMT 100 Welding for Maintenance AND ........................................(3)
- IMT 101 Welding for Maintenance Lab ..........................................(2)

**Total Credits** 2-5

**Gas Welder - 4805083039**
*(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*
- WLD 100 Oxy-Fuel Systems .................................................. 2
- WLD 101 Oxy-Fuel Systems Lab .................................................. 2

**Total Credits** 4

**ARC Cutter - 4805083099**
*(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)*
- WLD 110 Cutting Processes .................................................. 2
- WLD 111 Cutting Processes Lab .................................................. 3

**Total Credits** 5

**Tack Welder - 4805083119**
*(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*
- WLD 170 Blueprint Reading for Welding ........................................ 2
- WLD 171 Blueprint Reading for Welding Lab ................................... 3
- WLD 151 Basic Welding A OR .................................................. 2
- WLD 120 Shielded Metal Arc-Welding (SMAW) AND ..............(2)
- WLD 121 Shielded Metal Arc-Welding (SMAW) Fillet Lab OR ..........(3)
- WLD 130 Gas Tungsten Arc-Welding (GTAW) AND .............. (2)
- WLD 131 Gas Tungsten Arc-Welding (GTAW) Fillet Lab OR ..........(3)
- WLD 140 Gas Metal Arc-Welding (GMWA) AND ..................... (2)
- WLD 141 Gas Metal Arc-Welding (GMWA) Fillet Lab OR ..........(3)
- WLD 152 Basic Welding B ..................................................(5)

**Total Credits** 7-10

**Production Line Welder - 4805083059**
*(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*
- WLD 130 Gas Tungsten Arc-Welding (GTAW) ........................................ 2
- WLD 131 Gas Tungsten Arc-Welding (GTAW) Fillet Lab .......... 3
- WLD 140 Gas Metal Arc-Welding (GMWA) ........................................ 2
- WLD 141 Gas Metal Arc-Welding (GMWA) Fillet Lab .......... 3
- WLD 100 Oxy-Fuel Systems OR .................................................. 2
- WLD 110 Cutting Processes ..................................................(2)
- WLD 101 Oxy-Fuel Systems Lab OR .................................................. 2
- WLD 111 Cutting Processes Lab ..................................................(3)
- WLD 120 Shielded Metal Arc-Welding (SMAW) ........................................ 2
- WLD 121 Shielded Metal Arc-Welding (SMAW) Fillet Lab .......... 3
- WLD 123 Shielded Metal Arc-Welding (SMAW) Groove with Backing Lab OR .......... 3
- WLD 225 Shielded Metal Arc-Welding (SMAW) Open Groove Lab ........ (3)
- WLD 130 Gas Tungsten Arc-Welding (GTAW) ........................................ 2
- WLD 131 Gas Tungsten Arc-Welding (GTAW) Fillet Lab OR ..........(3)
- WLD 133 Gas Tungsten Arc-Welding (GTAW) Groove Lab .......... (3)
- WLD 140 Gas Metal Arc-Welding (GMWA) ........................................ 2
- WLD 141 Gas Metal Arc-Welding (GMWA) Fillet Lab .......... 3
- WLD 225 Shielded Metal Arc-Welding (SMAW) Groove with Backing Lab OR .......... 3
- WLD 170 Blueprint Reading for Welding ........................................ 2
- WLD 171 Blueprint Reading for Welding Lab ........................................ 3

**Total** 29-40

**AWS National Skills Standards Level I - 4805083089**
*(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*
- WLD 100 Oxy-Fuel Systems OR .................................................. 2
- WLD 110 Cutting Processes ..................................................(2)
- WLD 101 Oxy-Fuel Systems Lab OR .................................................. 2
- WLD 111 Cutting Processes Lab ..................................................(3)
- WLD 120 Shielded Metal Arc-Welding (SMAW) ........................................ 2
- WLD 121 Shielded Metal Arc-Welding (SMAW) Fillet Lab .......... 3
- WLD 123 Shielded Metal Arc-Welding (SMAW) Groove with Backing Lab OR .......... 3
- WLD 225 Shielded Metal Arc-Welding (SMAW) Open Groove Lab ........ (3)
- WLD 130 Gas Tungsten Arc-Welding (GTAW) ........................................ 2
- WLD 131 Gas Tungsten Arc-Welding (GTAW) Fillet Lab OR ..........(3)
- WLD 133 Gas Tungsten Arc-Welding (GTAW) Groove Lab .......... (3)
- WLD 140 Gas Metal Arc-Welding (GMWA) ........................................ 2
- WLD 141 Gas Metal Arc-Welding (GMWA) Fillet Lab .......... 3
- WLD 225 Shielded Metal Arc-Welding (SMAW) Groove with Backing Lab OR .......... 3
- WLD 170 Blueprint Reading for Welding ........................................ 2
- WLD 171 Blueprint Reading for Welding Lab ........................................ 3

**Total** 33-34

**ARC Welder - 4805083029**
*(Offered at ASC, BLC, BSC, ELC, ELW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*
- WLD 100 Oxy-Fuel Systems OR .................................................. 2
- WLD 110 Cutting Processes ..................................................(2)
- WLD 101 Oxy-Fuel Systems Lab OR .................................................. 2
- WLD 111 Cutting Processes Lab ..................................................(3)
- WLD 120 Shielded Metal Arc-Welding (SMAW) ........................................ 2
- WLD 121 Shielded Metal Arc-Welding (SMAW) Fillet Lab OR ..........(3)
- WLD 123 Shielded Metal Arc-Welding (SMAW) Groove with Backing Lab OR .......... 3
- WLD 225 Shielded Metal Arc-Welding (SMAW) Open Groove Lab ........ (3)
- WLD 130 Gas Tungsten Arc-Welding (GTAW) ........................................ 2
- WLD 131 Gas Tungsten Arc-Welding (GTAW) Fillet Lab OR ..........(3)
- WLD 133 Gas Tungsten Arc-Welding (GTAW) Groove Lab .......... (3)
- WLD 140 Gas Metal Arc-Welding (GMWA) ........................................ 2
- WLD 141 Gas Metal Arc-Welding (GMWA) Fillet Lab .......... 3
- WLD 225 Shielded Metal Arc-Welding (SMAW) Groove with Backing Lab OR .......... 3
- WLD 170 Blueprint Reading for Welding ........................................ 2
- WLD 171 Blueprint Reading for Welding Lab ........................................ 3

**Total** 24-25

**Pipeline Welder - 4805083109**
*(Offered at ASC, BLC, BSC, ELC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)*
- WLD 100 Oxy-Fuel Systems OR .................................................. 2
- WLD 110 Cutting Processes ..................................................(2)
- WLD 101 Oxy-Fuel Systems Lab OR .................................................. 2
- WLD 111 Cutting Processes Lab ..................................................(3)
- WLD 120 Shielded Metal Arc-Welding (SMAW) ........................................ 2
- WLD 121 Shielded Metal Arc-Welding (SMAW) Fillet Lab OR ..........(3)
- WLD 123 Shielded Metal Arc-Welding (SMAW) Groove with Backing Lab OR .......... 3
- WLD 225 Shielded Metal Arc-Welding (SMAW) Open Groove Lab ........ (3)
- WLD 130 Gas Tungsten Arc-Welding (GTAW) ........................................ 2
- WLD 131 Gas Tungsten Arc-Welding (GTAW) Fillet Lab OR ..........(3)
- WLD 133 Gas Tungsten Arc-Welding (GTAW) Groove Lab .......... (3)
- WLD 140 Gas Metal Arc-Welding (GMWA) ........................................ 2
- WLD 141 Gas Metal Arc-Welding (GMWA) Fillet Lab .......... 3
- WLD 225 Shielded Metal Arc-Welding (SMAW) Groove with Backing Lab OR .......... 3
- WLD 170 Blueprint Reading for Welding ........................................ 2
- WLD 171 Blueprint Reading for Welding Lab ........................................ 3

**Total** 29-40

**Recommended Electives:**
- WLD 229 Shielded Metal Arc-Welding (SMAW) Pipe Lab B .......... (3)
- WLD 237 Gas Tungsten Arc-Welding (GTAW) Pipe Lab B .......... (3)
- WLD 247 Gas Metal Arc-Welding (GMWA) Pipe Lab B ............. (3)
- WLD 253 Pipe Fitting and Template Development Lab .......... (1)

**Total** 29-40
Women’s and Gender Studies

The Women’s and Gender Studies Certificate Program provides an interdisciplinary approach that engages students in exploring and understanding historical and contemporary social issues with a focus on gender. The courses will require students to read, write, and think critically about such issues as identity, sexuality, the media, family, violence, health care, employment/discrimination, political structures, the intersection of gender, race, and poverty and the representation and participation of women on the world stage in artistic and socio-political spheres.

Certificate

Women’s and Gender Studies – 0502073019

(Women’s and Gender Studies in the Social Sciences OR)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
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<td>Introduction to Women’s and Gender Studies in the Social Sciences OR</td>
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<tr>
<td>WGS 201</td>
<td>Introduction to Women’s and Gender Studies in the Arts and Humanities</td>
<td>3</td>
</tr>
<tr>
<td>HIS 266</td>
<td>History of American Women to 1920 OR</td>
<td>3</td>
</tr>
<tr>
<td>HIS 267</td>
<td>History of American Women from 1920 OR</td>
<td>3</td>
</tr>
<tr>
<td>HIS 265</td>
<td>History of Women in America</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
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Note: HIS 265 satisfies general education and cultural studies requirements. HIS 266 and HIS 267 do not meet general education nor cultural studies requirements.

Women’s and Gender Studies Electives: (Required: 6 credits)

<table>
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<tr>
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<td>Cultural Diversity in the Modern World</td>
<td>3</td>
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<tr>
<td>ANT 220</td>
<td>Introduction to Cultural Anthropology</td>
<td>3</td>
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<tr>
<td>BIO 120</td>
<td>Human Ecology</td>
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<tr>
<td>COM 299</td>
<td>Special Topics in Communication</td>
<td>3</td>
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<tr>
<td>ENG 233</td>
<td>Literature and Identities: (Sexuality &amp; Representation)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 232</td>
<td>Literature and Place (Sub-topic required)</td>
<td>3</td>
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<tr>
<td>ENG 234</td>
<td>Introduction to Women’s Literature</td>
<td>3</td>
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<tr>
<td>FAM 253</td>
<td>Human Sexuality: Development, Behavior, and Attitudes</td>
<td>3</td>
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<td>FLK 276</td>
<td>Introduction to Folk Studies</td>
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<tr>
<td>FLK 280</td>
<td>Cultural Diversity in the United States</td>
<td>3</td>
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<tr>
<td>GEO 160</td>
<td>Lands and Peoples of the Non-Western World</td>
<td>3</td>
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<tr>
<td>GEO 240</td>
<td>Geography and Gender</td>
<td>3</td>
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<tr>
<td>HIS 265</td>
<td>History of Women in America</td>
<td>3</td>
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<tr>
<td>HIS 266*</td>
<td>History of American Women to 1920*</td>
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<td>HIS 267*</td>
<td>History of American Women from 1920*</td>
<td>3</td>
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<td>Peace Studies</td>
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<td>Ethics</td>
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<td>PHI 110</td>
<td>Medical Ethics</td>
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<td>REL 101</td>
<td>Introduction to Religious Studies</td>
<td>3</td>
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<tr>
<td>SOC 235</td>
<td>Inequality in Society</td>
<td>3</td>
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<tr>
<td>SWK 275</td>
<td>The Family</td>
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<tr>
<td>WGS 200*</td>
<td>Introduction to Women’s and Gender Studies in the Social Sciences* (if not taken as core)</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
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<td>12</td>
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</table>

Workplace Safety Specialist

The Workplace Safety Specialist Certificate is designed to prepare and provide a well-rounded base of knowledge essential for success in carrying out effective safety programs for today’s workforce. Professionals who are seeking or are new to safety management occupations are introduced to health and safety regulating agencies, their rules and regulations, compliance standards as well as the personal and professional skills required to administrate safety programs.

Certificate

Workplace Safety Specialist – 1507993010

(Offered at MYC, SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>WGS 201</td>
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<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
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</tr>
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</table>
### Associate in Fine Arts (A.F.A.) Curricula

#### Digital Cinematic Arts

The Associate in Fine Arts (AFA) in Digital Cinematic Arts degree program is designed for students who plan to transfer to a four-year institution to acquire a Bachelor of Fine Arts in (Digital) Cinematic Arts related fields. The embedded certificate program is designed to accommodate non-degree seeking students that wish to increase their knowledge and skills for the workplace. The program includes standard, transferable general education requirements for students seeking a higher degree. Technical courses in film history, film production techniques, cinematography, digital media, and writing for film are required in the core. Courses are offered in areas such as screenwriting, digital media design, camera, audio, acting and editing. Students will focus on the application of skills in the production of several finished short films.

Due to the nature of the digital cinematic arts, multiple ways of understanding/communicating are explored and critical competencies like creative problem solving, collaboration, time management and critical thinking are learned and practiced. Upon completion, graduates will be prepared for careers in the growing film industry in Kentucky, transfer to a 4-year institution, and for employment – worldwide – in this growing medium.

#### Theatre Arts

The Associate in Fine Arts (AFA) in Theatre degree program is designed for students who plan to transfer to a four-year institution in order to pursue a BFA in the Theatre Arts and/or acquire credentials for a career in arts-related areas. The program includes general education requirements, Theatre foundation courses in acting and stagecraft, as well as a wide variety of performance and production-related electives. Students will focus on the development of performance skills and a basic knowledge of technical theatre, while participating firsthand in fully realized theatrical productions every semester. Classes will also encourage analytical skills and critical analysis. Students will be encouraged to participate in state and regional theatre auditions and festivals with audition pieces prepared specifically with an eye toward securing professional work.

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### Certificate

**Filmmaking – From Script to Screen – 5006023019**

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>FLM 112</td>
<td>Filmmaking: Treatment to Storyboard</td>
</tr>
<tr>
<td>FLM 122</td>
<td>Filmmaking: Storyboard through Production</td>
</tr>
<tr>
<td>FLM 132</td>
<td>Filmmaking: Editing through Distribution</td>
</tr>
<tr>
<td>FLM 140</td>
<td>Filmmaking: Lab</td>
</tr>
<tr>
<td>THA 126</td>
<td>Acting I OR</td>
</tr>
<tr>
<td>THA 203</td>
<td>Acting for the Camera</td>
</tr>
</tbody>
</table>

**Total Credits** | **17**

*FLM 190 can be taken twice for credit. In order for it to count in the core and as an elective, students must pass the course twice for credit.

### Associate in Fine Arts

**Digital Cinematic Arts – 5006027029**

(Offered at BLC)

**General Education Core Requirements** | **24**
---|---
ENG 101 | Writing I | 3
ENG 102 | Writing I | 3
MAT 110 | Applied Mathematics OR | 3
MAT 146 | Contemporary College Mathematics | (3)
MTH 109 | College Algebra OR | 3
MA 109 | College Algebra OR | 3

**Digital Literacy** | **0-3**
Digital Literacy must be demonstrated either by competency exam or by completing an Approved digital literacy course.

**Digital Cinematic Arts Core** | **26**
---|---
FLM 112 | Filmmaking: Treatment to Short Screen Play | 4
FLM 122 | Filmmaking: Storyboard through Production | 4
FLM 132 | Filmmaking: Editing through Distribution | 4
FLM 140 | Filmmaking: Lab | 2
FLM 260 | Cinematography | 3
IMD 250 | Digital Video Editing I | 3
FLM 190 | Film Boot Camp* | 3
FLM 299 | Special Topics in Film: (Topic) | 3

**Concentration (Choose 12 hours from list of approved Digital Cinematic Arts Electives)** | **12**
---|---
FLM 190 | Film Boot Camp* | 3
FLM 210 | Screenwriting | 3
FLM 291 | Cinematic Arts Internship | 3
IMD 115 | Introduction to Graphic Diesel | 3
IMD 128 | Raster Design with Adobe Photoshop | 3
IMD 228 | Advanced Photoshop | 3

**Other courses may be selected with program coordinator permission.**

**Total** | **62-65**

---

### Associate in Fine Arts

**Theatre - 5005017019**

(Offered at BLC, OWC)

**General Education Core Requirements** | **25**
---|---
ENG 101 | Writing I | 3
ENG 102 | Writing I | 3
MA 109 | College Algebra OR | 3
MA 111 | Contemporary Mathematics OR | (3)
MAT 150 | College Algebra OR | (3)

**Theatre Core** | **15-18**
---|---
THA 101 | Introduction to Theatre | 3
THA 126 | Fundamentals of Acting | 3
THA 226 | Acting II: Scene Study (Realism) | 3
THA 227 | Acting III: Scene Study (Styles) | 3
THA 260 | Stagecraft | 3

**Total Credits** | **36**

A student must pass an approved three (3) credit hour computer/digital literacy course unless the computer competency exam is successfully completed.

---

219
## Practicum Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 190</td>
<td>3</td>
</tr>
<tr>
<td>THA 191</td>
<td>3</td>
</tr>
<tr>
<td>TA 195</td>
<td>3</td>
</tr>
<tr>
<td>THA 196</td>
<td>3</td>
</tr>
</tbody>
</table>

**Concentration (Choose 18 hours from the Approved Theatre Electives)**  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH 127</td>
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</tr>
<tr>
<td>TH 150</td>
<td>3</td>
</tr>
<tr>
<td>TH 200</td>
<td>3</td>
</tr>
<tr>
<td>THA 283</td>
<td>3</td>
</tr>
<tr>
<td>FLM 110</td>
<td>4</td>
</tr>
<tr>
<td>FLM 120</td>
<td>4</td>
</tr>
<tr>
<td>FLM 130</td>
<td>4</td>
</tr>
<tr>
<td>MIS 192</td>
<td>1</td>
</tr>
<tr>
<td>ART 110</td>
<td>3</td>
</tr>
<tr>
<td>ENG 282</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250</td>
<td>3</td>
</tr>
</tbody>
</table>

**Summary**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Core Requirements</td>
<td>25–28</td>
</tr>
<tr>
<td>Theatre Core Requirements</td>
<td>15</td>
</tr>
<tr>
<td>Practicum Core</td>
<td>3</td>
</tr>
<tr>
<td>Concentration (Approved Theatre Electives)</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>61–64</td>
</tr>
</tbody>
</table>

## Visual Art

The Associate in Fine Arts (AFA) in Visual Art degree program is designed for students who plan to transfer to a four-year institution in order to pursue a BFA in the Visual Arts and/or a career in arts-related areas requiring pre-professional credentials. The program includes general education requirements, visual arts foundation courses in drawing, design and art history, as well as a wide variety of studio art electives. Students will focus on the development of artistic skills and a visual vocabulary for personal expression, while exploring both traditional and nontraditional art areas. Classes will also encourage analytical and creative problem-solving skills and experience in both verbal presentation of ideas and critical concepts. A personal portfolio of artwork will be a tangible result of a student completing this program.

### Associate in Fine Arts

**Visual Art - 5007027019**  
*(Offered at HZC, OWC, WKC)*

#### General Education Core Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
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</tr>
<tr>
<td>ENG 102</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td>Arts &amp; Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
</tr>
</tbody>
</table>

**Fine Arts Core (Visual Art track)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 105</td>
<td>3</td>
</tr>
<tr>
<td>ART 106</td>
<td>3</td>
</tr>
<tr>
<td>ART 110</td>
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<tr>
<td>ART 112</td>
<td>3</td>
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<tr>
<td>ART 113</td>
<td>3</td>
</tr>
<tr>
<td>ART 210</td>
<td>3</td>
</tr>
</tbody>
</table>

**Concentration (Choose 18 hours from the Approved Art Studio Electives)**  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART 211</td>
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</tr>
<tr>
<td>ART 220</td>
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</tr>
<tr>
<td>ART 221</td>
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<tr>
<td>ART 231</td>
<td>3</td>
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<td>ART 240</td>
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<td>ART 241</td>
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<td>ART 251</td>
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<td>ART 253</td>
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<td>ART 260</td>
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<td>ART 270</td>
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<tr>
<td>ART 271</td>
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<td>ART 280</td>
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<td>ART 281</td>
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<td>ART 282</td>
<td>3</td>
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<tr>
<td>ART 290</td>
<td>3</td>
</tr>
<tr>
<td>ART 299</td>
<td>1–3</td>
</tr>
</tbody>
</table>

**Summary**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Core Requirements</td>
<td>24</td>
</tr>
<tr>
<td>Fine Arts Core Requirements</td>
<td>18</td>
</tr>
<tr>
<td>Concentration (Approved Art Studio Electives)</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
</tr>
</tbody>
</table>

Degree requirements: completion of minimum 60 credit hours; minimum cumulative 2.0 GPA; minimum of 15 credit hours earned at the institution awarding the degree; cultural studies course; and demonstration of computer literacy.

1 Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog.

2 A course used to fulfill one category cannot be used to fulfill another category.

Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.
## Course Descriptions

**Course prefix/number arranged alphabetically.** The course number will appear as 101 ENG on transcripts, student schedules and web-based documents.

**Course Credit.** Variable credit is shown as (1-3).

**Unique course identification**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course Description</th>
<th>Course ID</th>
<th>Attributes</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENG 101 (3)</strong> Writing I</td>
<td>A course in writing emphasizing argument. Instruction and practice in reading critically, thinking logically, responding to texts, developing research skills, writing substantial essays through systematic revision, addressing specific audiences, and expressing ideas in standard and correct English. Includes grammar and mechanics review. NOTES: (a) credit not available by special examination; (b) ENG 101 and ENG 102 may not be taken concurrently.</td>
<td>000467</td>
<td>WC - Written Communication, Technical</td>
<td>Lecture, Components: Course may have one component or several - lecture, laboratory, clinical, etc.</td>
</tr>
</tbody>
</table>

**Courses are numbered as follows:**

- 001 through 099 – Orientation and developmental courses
- 100 through 199 – Undergraduate credit
- 200 through 299 – Undergraduate credit; sophomore classification may be required.
- Modular courses have four number or alpha characters with the first three numbers representing the parent course, e.g., BAS 1601 is the first module of BAS 160. The last character denotes the sequence of the module with either a numerical or alpha character. Course descriptions are published for recently approved courses, and those that have been offered in the preceding two-year period. Other active courses may be offered that are not published in the printed catalog.

### A&S Arts & Sciences

**A&S 100(1 - 6)** Course ID: 002195 Special Introductory Course

This course permits the offering at the introductory level of special courses of an interdisciplinary, topical, or experimental nature. Each proposal must be approved by the Dean of the College of Arts and Sciences. A particular title may be offered at most twice under the A&S 100 number. Students may not repeat under the same title. May be repeated to a maximum of 12 credits. Prerequisite: Will be set by instructor.

Components: Lecture

Attributes: Other

### AAD Arts Administration

**AAD 100(3)** Course ID: 004620 Fundamentals of Arts Administration

Arts administration, planning, evaluation, funding and finance in arts organizations are emphasized. Students are engaged in arts management projects related to career goals. Lecture: 3 credits (45 contact hours). Prerequisite: AAD 100, ENG 102.

Components: Lecture

Attributes: Technical

**AAD 200(3)** Course ID: 004621 Arts Management \& Administrative Practice

Students are engaged in arts management projects related to career finance in arts organizations are emphasized. Students

**ACC Accounting**

| ACC 201(3) | Course ID: 000927 | Financial Accounting | Presents generally accepted accounting principles used for the measurement and reporting of financial information in the financial statements. Prerequisite: Sophomore standing (30 credit hours) or consent of the instructor. Lecture: 3 credits (45 contact hours). |
| ACC 202(3) | Course ID: 000001 | Managerial Accounting | An introduction to the use of accounting data within an organization to analyze and solve problems and to make planning and control decisions. Prerequisite: ACC 201 or ACT 101 and ACT 102. Lecture: 3 credits (45 contact hours). |
| ACC 203(1) | Course ID: 005947 | Financial Accounting | Accounting for Merchandising Businesses | Presents accounting for merchandising businesses including inventories, receivables and internal control. Prerequisite: Sophomore Standing (30 credit hours) or Consent of Instructor. ACC 2011 or equivalent. Lecture: 1 credit (15 contact hours). |
| ACC 204(1) | Course ID: 005948 | Financial Accounting | Long Term Assets and Long Term Financing Activities | Presents measuring and reporting of long term assets and long term financing activities. Prerequisite: Sophomore Standing (30 credit hours) or Consent of Instructor ACC 2011 and ACC 2012 or equivalent. Lecture: 1 credit (15 contact hours). |

### ACH Architectural Technology

**ACH 100(3)** Course ID: 004679 Construction Documents I

This is the first course of a four-semester studio sequence. Proper methods and fundamentals of architectural construction documents and residential construction will be introduced. Drafting conventions utilizing basic hand drafting tools and computer-aided drawing techniques will be studied. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture

Attributes: Computer Literacy, Technical

**ACH 110(1)** Course ID: 004680 Survey of the Architectural Profession

In this course, the student will gain an understanding of the language of architecture and develop an appreciation for building design strategies through direct analysis. In addition, various career opportunities in architecture and related professions will be explored. Lecture: 1 credit (15 contact hours).

Components: Lecture

Attributes: Technical
ACH 120(3) Course ID: 004681
Theory and History of Architecture I
The development of architecture as it is related to world culture with an emphasis on design, structure, materials, eco-social, and political factors are considered. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 150(3) Course ID: 004682
Construction Documents II
This is the second course of a four-semester studio sequence. Students develop architectural construction documents for multi-level framed construction. Students will further develop an understanding of programming, schematics, design development, and construction document production using current computer-aided technology. Emphasis will be placed on building codes and related discipline coordination. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Prerequisite: ACH 100 or consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

ACH 160(3) Course ID: 004683
Building Materials and Construction I
The essentials of the theory of selected building materials (Construction Specifications Institute, Divisions 2-7) and their assembly in appropriate systems are presented with particular attention to component selection and behavior under various loads, climatic conditions and fire. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 161(3) Course ID: 004684
Building Materials and Construction II
The essentials of the theory of selected building materials (Construction Specifications Institute, Divisions 7-16) and their assembly in appropriate systems are presented with particular attention to component selection and behavior under various loads, climatic conditions and fire. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 170(3) Course ID: 004685
Theory and History of Architecture II
A survey of the architectural periods from the neo-classic to the present is presented. This course is a continuation of ACH 120. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 175(3) Course ID: 004686
Introduction to Systems
An overview of the various systems found in buildings and the influences that shape architectural design and construction is presented. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 180(1 - 3) Course ID: 005463
Instructor Consent Required
Selected Topics in Architectural Technology (Topic)
The subject matter of this course may vary from semester to semester as new technology is developed and new issues evolve and/or to address local architectural issues. This course may be repeated with different topics to a maximum of six credit hours. Prerequisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

ACH 194(3) Course ID: 004687
Visual Composition
In this course, the student will study the aesthetic principles found in both two-dimensional and three-dimensional compositions. These principles will be applied in exercises involving drawing, modeling and creative writing. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ACH 195(3) Course ID: 004856
Computer Aided Drafting I
Students learn how computer hardware and software are used in preparing architectural documents. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Computer Literacy, Technical

ACH 198(1 - 3) Course ID: 015986
Practicum in Architectural Technology
Provides supervised, on-the-job work experience related to the student’s educational objectives; students who participate in the practicum do not receive compensation. Prerequisite: Completion of a minimum of 12 hours in Architectural Technology (ACH) courses with a min. cumulative GPA of 2.0 in all courses. Practicum: 1.0-3.0 credits (40-120 contact hours).
Components: Practicum
Attributes: Technical

ACH 200(3) Course ID: 004688
Construction Documents III
This is the third course of a four-semester studio sequence. Students study the methods by which commercial buildings are designed and constructed. Basic skills are developed relating to the implementation of determinants in this process such as program analysis, applicable codes, construction methods and materials as well as computer applications. Through the completion of a series of structured projects including the preparation of a set of architectural construction documents for a medium-sized building, students apply the knowledge necessary to achieve these goals. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Prerequisite: ACH 150 and ACH 165/ACH 195 or consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

ACH 225(3) Course ID: 004689
Structures
Students study structural materials and systems including the design of simple structural components. Prerequisite: ACH 175 and MAH 125, or consent of instructor.
Components: Lecture
Attributes: Technical

ACH 250(3) Course ID: 004690
Construction Documents IV
This is the fourth course of a four-semester studio sequence. Students prepare a set of advanced construction documents using current computer-aided drafting techniques. Emphasis will be placed on design principles and site development for a commercial construction project. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Prerequisite: ACH 200 or consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

ACH 260(3) Course ID: 004691
Office Practice
This course is intended to serve as a capstone course in the Architectural Technology program. Emphasis is placed on preparing students for the workplace by focusing on the professional, legal, and business aspects of the architectural and construction industries. Case studies are reviewed and problems are presented to students with the objective of introducing them to a broader set of circumstances that affect how decisions are made in the practice of architecture. Lecture: 3 credits (45 contact hours). Prerequisite: ACH 110 and ACH 200 or equivalent.
Components: Lecture
Attributes: Technical

ACH 275(3) Course ID: 004692
Mechanical and Electrical Systems
Students engage in a qualitative and quantitative study of environmental control systems used in buildings. Prerequisite: ACH 175 and MAT 125, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 280(2) Course ID: 016138
Revit/Building Information Modeling
Introduces Building Information Modeling (BIM) using Autodesk Revit or other similar and related software, methods and processes. Provides students with skills to produce and present residential and commercial design models, construction documents, and to extract information and data from the model. Incorporates investigations into issues related to sustainable design and the integration of other software for related analysis. Pre-requisite: ACH 195, or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 285(3) Course ID: 005464
Computer-Aided Drafting II
Students learn how to modify selected computer aided drafting software to enhance construction document production. Integration of other software will also be discussed. Prerequisite: ACH 185 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 290(3) Course ID: 004694
Building Codes I
Students will analyze the content and format of current building codes. The necessity for building codes, problems in interpretation and application as well as legal aspects will be discussed. The main objective is to familiarize students with the basic provisions and procedures associated with building code administration. Prerequisite: ACH 150 and ACH 160, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 291(3) Course ID: 004695
Construction Management
Students examine the principles and current practices of construction management with emphasis on project organization, scheduling and cost control. Prerequisite: ACH 150, ACH 160 and ACH 161, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 292(3) Course ID: 004696
Building Codes II
This course will be continuation of ACH 290, Building Codes I, with a more in-depth study of current building codes. Prerequisite: ACH 290 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 293(3) Course ID: 004697
Presentation Techniques
Students will explore a variety of presentation and rendering techniques used in the architectural profession. Design skills and the understanding of spatial relationships will be further developed. Prerequisite: ACH 100 or consent of instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ACH 294(3) Course ID: 004698
Specification Writing
This course provides an in-depth study of the importance of specifications in the design and construction process. Students will engage in research, evaluate the quality of building materials, study the methods of writing specifications, and gain exposure to industry-standard software in preparing a variety of specifications. Prerequisite: ACH 150, ACH 160, ACH 161, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
ACH 295(3)  Course ID: 004693
Computer Aided Drafting II
Students learn how to modify selected computer aided drafting software to enhance construction document production. Integration of other software will also be discussed. Prerequisite: ACH 195 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 297(3)  Course ID: 004699
Estimating Techniques
Students investigate the factors affecting the cost of construction. Includes labor productivity, materials, overhead and profit, including area and volume computations. Current methods of cost estimating will be applied. Prerequisite: ACH 150 and MAT 125; or consent of instructor. Lecture: 2.5 credits (37.5 contact hours); Laboratory: 0.5 credits (7.5 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ACH 298(3)  Course ID: 004700
Computer 3D Modeling
Students learn how computer hardware and software are used in preparing 3D architectural drawings and client-oriented presentations. Prerequisite: ACH 150 and ACH 185 or consent of instructor.
Components: Lecture
Attributes: Technical

ACR 100(3)  Course ID: 000949
Refrigeration Fundamentals
Introduces refrigerant piping and fundamentals of refrigeration, including environmental issues associated with HVAC. Corequisite: ACR 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 101(2)  Course ID: 000950
Refrigeration Fundamentals Lab
Introduces fundamentals of refrigeration including environmental issues associated with HVAC and refrigerant piping. Develops proper hands-on techniques in the servicing and troubleshooting of basic systems. Stresses proper use and care of tools, equipment, materials, and safety. Corequisite: ACR 100, Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 102(3)  Course ID: 000951
HVAC Electricity
Introduces students to basic physics of electricity. Covers Ohm’s law; measuring resistance, voltage, ohms, watts and amps; constructing various types of electrical circuits; selecting wire and fuse sizes; and troubleshooting an electric motor and motor controls. Corequisite: ACR 103. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 103(2)  Course ID: 000952
HVAC Electricity Lab
Introduces students to basic physics of electricity. Provides for application of Ohm’s law; and measure resistance, voltage, ohms, watts and amps; construct various types of electrical circuits; select wire and fuse sizes; and learn to troubleshoot an electric motor and motor controls. Corequisite: ACR 102. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 112(3)  Course ID: 000953
Sheet Metal Fabrication
The student will learn to make patterns and lay out and construct common sheet metal duct fittings. Corequisite: ACR 113.
Components: Lecture
Attributes: Technical

ACR 113(2)  Course ID: 000954
Sheet Metal Fabrication Lab
Provides lab time for students to lay out, cut, construct, and install common sheet metal duct fittings. Corequisite: ACR 112. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 130(3)  Course ID: 000955
Electrical Components
 Defines the electrical components of an air conditioning system. Includes different types of line voltages, wiring diagrams and solid state devices. Emphasizes safety. Prerequisite: ACR 102 with a grade of "C" or greater. Corequisite: ACR 131. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 131(2)  Course ID: 000956
Electrical Components Lab
Permits practice using different types of line voltages, reading wiring diagrams, and using solid state devices. Emphasizes safety. Prerequisite: ACR 102 with a grade of "C" or greater. Corequisite: ACR 130. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 170(3)  Course ID: 000957
Heat Load/Duct Design
Introduces fundamentals needed to calculate heat gain and heat loss, thereby determining air conditioner/furnace size which will be used to calculate the correct duct size. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 198(2)  Course ID: 000958
Instructor Consent Required
Practicum
Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in Practicum do not receive compensation.
Prerequisite: Permission of the Instructor.
Components: Practicum
Attributes: Technical

ACR 200(3)  Course ID: 000960
Commercial Refrigeration
Develops techniques for servicing and troubleshooting mechanical and electro-mechanical refrigeration components. Emphasizes electrical and refrigeration safety. Covers proper tool use and environmentally sound refrigerant handling. Prerequisite: (ACR 100 and ACR 101) with a grade of “C” or greater. Corequisite: ACR 201. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 201(2)  Course ID: 000961
Commercial Refrigeration Lab
Provides techniques in servicing and troubleshooting mechanical and electro-mechanical refrigeration components. Emphasizes electrical and refrigeration safety. Covers proper tool use and environmentally sound refrigerant handling. Prerequisite: (ACR 100 and ACR 101) with a grade of “C” or greater. Corequisite: ACR 200. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 206(5)  Course ID: 007376
Boilers
Develops techniques for servicing, troubleshooting and performing preventive maintenance on steam generating systems. Emphasizes electrical and steam safety. Covers proper tool and instrument use and practices for the efficient applications on steam systems used in commercial and industrial settings. Pre-requisite: ACR 102 and ACR 103. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

ACR 207(5)  Course ID: 007377
Commercial HVAC Systems
Develops techniques for servicing, troubleshooting and performing preventive maintenance on commercial HVAC systems. Emphasizes electrical and mechanical safety. Covers tools and instruments used in installing, troubleshooting, and preforming preventive maintenance on commercial HVAC systems. Pre-requisite: (ACR 100 and ACR 101 and ACR 102 and ACR 103) or Consent of the Instructor. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

ACR 208(4)  Course ID: 007378
Chillers
Develops techniques for servicing, troubleshooting and performing preventive maintenance on high-pressure, low-pressure and absorption chilled water systems. Emphasizes electrical and safety. Covers proper tool and instrument use and practices for the efficient applications on chilled water systems used in commercial and industrial settings. Pre-requisite: ACR 100 and ACR 102 and ACR 103. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

ACR 209(4)  Course ID: 007379
Manual N Commercial Load Calculation and Design
Covers fundamentals needed to calculate heat gain and heat loss for commercial buildings. Introduces design conditions, solar heat gain, ventilation, internal heat gains, psychrometrics and distribution systems for air conditioning and heating, thereby determining the correct size of equipment needed for different commercial buildings. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

ACR 210(3)  Course ID: 000962
Ice Machines
Introduces operation, checking, adjusting and troubleshooting commercial ice makers. Covers adjusting, checking, cleaning and troubleshooting commercial ice machines. Prerequisite: (ACR 100 and ACR 102) with a grade of “C” or greater. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 220(3)  Course ID: 000963
Cooling and Dehumidification
Explains working characteristics of air conditioning units with air and water cooled condensers. Covers line, low voltage and high voltage control systems. Prerequisite: (ACR 100 & ACR 101) with a grade of "C" or greater. Corequisite: ACR 251. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 251(2)  Course ID: 000964
Cooling and Dehumidification Lab
Prepares the student for installing, servicing, and troubleshooting air conditioning systems with water and air cooled condensers and line and low voltage. Prerequisite: (ACR 100 & ACR 101) with a grade of "C" or greater. Corequisite: ACR 250. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 260(3)  Course ID: 000965
Heating and Humidification
 Discusses principles of operation and application of heating systems from simple electric and fossil fuel furnaces through more complex systems such as oil burners, boilers, and hydronic systems. Concentrates on both line and control voltage circuitry pertaining to these systems. Pre-requisite: ACR 102 &103 or ETT 154 & 155 or ETT 112 & 113 or IMT 110 & 111 or consent from the instructor. Corequisite: ACR 262. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Course Descriptions
ACR 252(2)  Course ID:  016230
Heating and Humidification Lab
Provides lab time for application of troubleshooting, checking, adjusting, and installing heating units currently in use. Pre-requisite: ACR 102 & 103 or EET 154 & 155 or EIT 112 & 113 or IMT 110 & 111 or consent from the instructor. Co-requisite: ACR 260. Laboratory 2.0 credits (60 contact hours)
Components: Laboratory
Attributes: Technical

ACR 270(3)  Course ID:  000967
Heat Pump Application
Explains reverse cycle heating systems, defrost cycles, reversing valves, and auxiliary heating. Concentrates on line and control voltage circuitry pertaining to these units. Prerequisite: (ACR 100 and ACR 102) with a grade of "C" or greater or Permission of Instructor. Corequisite: ACR 271. Lecture: 3 credits (45 contact hours).
Components: Laboratory
Attributes: Technical

ACR 271(2)  Course ID:  000968
Heat Pump Application Lab
Provides for application of troubleshooting, checking, adjusting, and installing reverse cycle units. Prerequisite: (ACR 100 and ACR 102) with a grade of "C" or greater or Permission of Instructor. Corequisite: ACR 270. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 290(3)  Course ID:  000969
Journeyman Preparation
Includes lectures, discussions, and presentations pertaining to the proper application of HVAC codes. Prepares the student to pass the Kentucky Journeyman HVAC licensing exam. (This class should be taken at the end of the program.) Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 291(1)  Course ID:  000970
Instructor Consent Required
Special Problems I
A course designed for the student who has demonstrated specific special needs. Prerequisite: Permission of Instructor
Components: Laboratory
Attributes: Technical

ACR 293(2)  Course ID:  000971
Instructor Consent Required
Special Problems II
A course designed for the student who has demonstrated specific special needs. Prerequisite: Permission of Instructor
Components: Laboratory
Attributes: Technical

ACR 298(2)  Course ID:  000973
Instructor Consent Required
Practicum
Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in Practicum do not receive compensation. Prerequisite: Permission of the Instructor.
Components: Practicum
Attributes: Technical

ACR 299(2)  Course ID:  000974
Instructor Consent Required
Cooperative Education Program
Co-op provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Cooperative Education program receive compensation for their work. Prerequisite: Permission of the Instructor.
Components: Co-op
Attributes: Technical

ACT 101(3)  Course ID:  000004
Fundamentals of Accounting I
Students are introduced to accounting terminology and general theoretical principles. The major focus of the course is on the accounting cycle and the communication of financial information to decision-makers. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACT 102(3)  Course ID:  000005
Fundamentals of Accounting II
Basic financial accounting concepts and methods are expanded to include accounting for partnerships and corporations. Lecture: 3 credits (45 contact hours).
Prerequisite: ACT 101.
Components: Lecture
Attributes: Technical

ACT 177(3)  Course ID:  005238
Entrepreneurial Accounting
Includes issues and concerns that are vital to small and medium-size businesses. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACT 196(3)  Course ID:  000007
Payroll Accounting
Introduces the design and implementation of modern payroll systems. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACT 280(3)  Course ID:  000014
Financial Accounting Topics
Additional in-depth exposure to financial accounting procedures for classifying, recording, reporting, and disclosure; intended primarily for students enrolled in the Accounting Technology AAS program and the Accounting Option in the Business Administration AAS Program.
Components: Lecture
Attributes: Technical

ACR 209(3)  Course ID:  000074
Instructor Consent Required
Cooperative Education Program
Co-op provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Cooperative Education program receive compensation for their work. Prerequisite: Permission of the Instructor.
Components: Co-op
Attributes: Technical

ACR 293(2)  Course ID:  000971
Instructor Consent Required
Record Keeping
A course designed for the student who has demonstrated specific special needs. Prerequisite: Permission of Instructor
Components: Laboratory
Attributes: Technical

ACR 295(3)  Course ID:  000972
Instructor Consent Required
Special Problems III
A course designed for the student who has demonstrated specific special needs. Prerequisite: Permission of Instructor
Components: Laboratory
Attributes: Technical

ACR 298(2)  Course ID:  000973
Instructor Consent Required
Practicum
Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in Practicum do not receive compensation. Prerequisite: Permission of the Instructor.
Components: Practicum
Attributes: Technical

ACR 299(2)  Course ID:  000974
Instructor Consent Required
Cooperative Education Program
Co-op provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Cooperative Education program receive compensation for their work. Prerequisite: Permission of the Instructor.
Components: Co-op
Attributes: Technical

ACT 171(0.6)  Course ID:  005239
Rationale for a Well Designed Accounting System
Developing a well designed accounting system for the entrepreneur. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
Attributes: Technical

ACT 177(2.6)  Course ID:  005240
Contractual and Legal Reporting Requirements
Common contractual and legal reporting requirements. Lecture: 0.6 credits (9 contact hours). Prerequisite: ACT 1771 or consent of the instructor.
Components: Lecture

ACT 1771(0.6)  Course ID:  005241
Overview of Accounting for the Entrepreneur
Overview of accounting for the entrepreneur. Lecture: 0.6 credits (9 contact hours). Prerequisite: ACT 1772 or consent of the instructor.
Components: Lecture

ACT 1774(0.6)  Course ID:  005242
Introduction to Computer Accounting Software to Record Basic Accounting Transactions
Computer accounting software to record basic accounting transactions. Lecture: 0.6 credits (9 contact hours). Prerequisite: ACT 1773 or consent of the instructor.
Components: Lecture

ACT 1775(0.6)  Course ID:  005243
Introduction to Computer Accounting Software to Generate Financial Statements
Computer accounting software to generate financial statements. Lecture: 0.6 credits (9 contact hours). Prerequisite: ACT 1774 or consent of the instructor.
Components: Lecture

ACT 181(0.5)  Course ID:  006117
Payroll Records
Introduces the records required for today’s payroll or human resource manager. Covers the relationship between Payroll and Human Resources and their common laws. Concludes with salary computations and methods to compute Gross Payroll. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

ACT 1862(0.5)  Course ID:  006118
Payroll Taxes
Covers federal and state tax withholding and employer-side payroll expenses. Prerequisite: ACT 1961. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

ACT 1863(0.5)  Course ID:  006119
Accounting for Payroll
Covers federal and state unemployment laws and accounting for payroll. Prerequisite: ACT 1961. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

ACT 1864(1)  Course ID:  006120
Manual Payroll
Requires the student to complete a Quarterly Payroll Simulation. Prerequisite: ACT 1962 & 1963. Lecture: 1 credit (15 contact hours).
Components: Lecture

ACT 1865(0.5)  Course ID:  006121
Computerized Payroll
Requires the student to complete a Computerized Payroll Simulation. Prerequisite: ACT 1962 & 1963. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
ACT 2791(1) Course ID: 015822
Computer Accounting Basics
Presents accounting concepts and principles for a merchant using computerized accounting software. Pre-requisite: ACC 201 or ACT 101 and ACT 102 or concurrent enrollment in ACT 102. Digital literacy 3.0 hours. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ACT 2792(1) Course ID: 015823
Computer Accounting Procedures
Presents computerized accounting concepts and principles for businesses including service providers. Pre-requisite: ACT 2791. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ACT 2793(1) Course ID: 015824
Advanced Features and Controls
Presents accounting concepts and principles for new businesses, including merchandisers, and covers internal controls. Pre-requisite: ACT 2792. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

ADX Automotive Technology

ADX 120(3) Course ID: 000983
Basic Automotive Electricity
Introduces the student to the principles, theories, and concepts of the automotive electrical system that include the unique diagramming, coding and locating of wiring, and component devices. Co-requisite: ADX 121; Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ADX 121(2) Course ID: 000984
Basic Automotive Electricity Lab
Provides hands-on work designed to allow the student to use the concepts, principles, and theories covered in Basic Automotive Electricity. ADX 120, in practical application. Provides the student a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Co-requisite: ADX 120; Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

ADX 150(3) Course ID: 000985
Engine Repair
Provides a series of lectures and demonstrations on the fundamentals of engine repair, troubleshooting, and engine operation and maintenance. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ADX 151(2) Course ID: 000986
Engine Repair Lab
Provides practical experiences and applications relating to engine repair, inspection, trouble shooting and maintenance. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Corequisite: ADX 150; Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

ADX 170(3) Course ID: 000987
Climate Control
Introduces the theory and operation of heating and air conditioning systems, air conditioning terminology, and servicing and troubleshooting mechanical and electrical circuits of heating and air conditioning systems. Co-requisite: ADX 171. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ADX 171(1) Course ID: 000988
Climate Control Lab
Provides opportunities to trouble shoot, repair and perform maintenance on heating and air conditioning systems. Provides experiences in safety precautions, special tool uses, component operation and how to service and troubleshoot the complete system. The student may be provided a work experience alternating between periods of work off campus and work in a laboratory classroom setting. Co-requisite: ADX 170. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

ADX 260(3) Course ID: 000989
Electrical Systems
Focuses on the theory and principles relating to automotive electrical/electronic components. Co-requisite: ADX 261. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ADX 261(2) Course ID: 000990
Electrical Systems Lab
Provides practical applications and experiences related to the theory and principles of automotive electrical/electronic components. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Co-requisite: ADX 260; Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AER Aeronautics

AER 110(3) Course ID: 006516
Fundamentals of Aerodynamics/Private Pilot Ground School
Covers the fundamentals of aerodynamics aircraft systems, aerodynamic design making (ADM), applicable federal regulations, flight planning and aeronautical charts, meteorology, flight navigation, and weight and balance. Requires no previous aviation experience and is formatted to take "zero" time students and ready them for the national private pilot examination. Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture
Attributes: Pilot Course, Technical

AET Applied Engineering Technology

AET 100(1) Course ID: 006358
Introduction to Lean Systems
Presents methodologies for Lean systems to include Lean Manufacturing basics and tools, Lean implementation, Lean measures, Six-Sigma, and Lean supply chain design and management. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

AET 102(4) Course ID: 006359
Introduction to Energy
Introduces the scientific principles of energy and fuels and investigates specific topics: nature and extent of energy resources, economics and environmental effects, alternative energy, energy technology, health and safety. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 110(4) Course ID: 006360
Introduction to Circuit Analysis
Covers basic electrical components as well as DC/AC circuit configurations; introduces the theory and operation of solid state devices such as diodes, BJTs, FETs, and operational amplifiers; emphasizes circuit construction, analysis, and troubleshooting. Corequisites: MT 125 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 112(4) Course ID: 006361
Alternative Energy Fundamentals
Addresses topics of alternative energy sources including passive and active solar systems, fuel cells, hydroelectric power, geothermal heat transfer, photovoltaic systems, bio fuels, and wind energy. Prerequisite: AET 102. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AER 110(3) Course ID: 006516
Fundamentals of Aerodynamics/Private Pilot Ground School
Covers the fundamentals of aerodynamics aircraft systems, aerodynamic design making (ADM), applicable federal regulations, flight planning and aeronautical charts, meteorology, flight navigation, and weight and balance. Requires no previous aviation experience and is formatted to take "zero" time students and ready them for the national private pilot examination. Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture
Attributes: Pilot Course, Technical

AET 100(1) Course ID: 006358
Introduction to Lean Systems
Presents methodologies for Lean systems to include Lean Manufacturing basics and tools, Lean implementation, Lean measures, Six-Sigma, and Lean supply chain design and management. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

AET 102(4) Course ID: 006359
Introduction to Energy
Introduces the scientific principles of energy and fuels and investigates specific topics: nature and extent of energy resources, economics and environmental effects, alternative energy, energy technology, health and safety. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 110(4) Course ID: 006360
Introduction to Circuit Analysis
Covers basic electrical components as well as DC/AC circuit configurations; introduces the theory and operation of solid state devices such as diodes, BJTs, FETs, and operational amplifiers; emphasizes circuit construction, analysis, and troubleshooting. Corequisites: MT 125 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 112(4) Course ID: 006361
Alternative Energy Fundamentals
Addresses topics of alternative energy sources including passive and active solar systems, fuel cells, hydroelectric power, geothermal heat transfer, photovoltaic systems, bio fuels, and wind energy. Prerequisite: AET 102. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 114(4) Course ID: 006362
Solar and Wind Energy Generation
Introduces the methods and equipment necessary for the production of electrical energy by alternative means to include photovoltaic systems, wind turbines and solar water heating. Prerequisite: AET 110 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 120(4) Course ID: 006363
Power Electronics
Introduces the circuitry and components used to convert the power generated by alternative methods to line voltage and current values commonly used in residential and commercial electrical installations; includes Thyristor theory and application, inverter types and application, and battery charging and maintenance. Prerequisite: AET 110 or Consent of Instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
Attributes: Technical

AET 130(3) Course ID: 006364
Industrial Sensors
Covers various types of industrial sensors and opto-electronic devices. Prerequisite: AET 110 or Consent of Instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Technical

AER 140(4) Course ID: 006365
Industrial Equipment Maintenance
Covers maintenance techniques and practices commonly found in a wide variety of industrial settings to include areas such as lubrication, mechanical drives, bearings, and safe working practices. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
Attributes: Technical

AET 150(4) Course ID: 006366
Advanced Circuit Analysis
Introduces the more advanced concepts of DC and AC circuits. Topics include Kirchhoff’s Laws, network theorems, Delta-Y conversion, reactive circuits, complex impedances, Z-matching, resonance, and LC tank loading effect. Prerequisite: AET 110 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 160(4) Course ID: 006367
Industrial Controls Electronics
Introduces the concepts of industrial power control to include solid state devices, controllers, single and poly-phase rectification, and DC power supplies. Prerequisite: AET 110 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 170(4) Course ID: 006368
Digital Circuits and Concepts
Covers the basics of digital electronics to include logic gates, number systems, Boolean algebra, Karnaugh mapping, registers, bi-stable circuits, and basic arithmetic circuits. Prerequisite: AET 110 or consent of instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 180(3) Course ID: 006369
Industrial Computer Architecture
Introduces the basic layout of industrial computers as preparatory course leading into the more advanced PLC’s; includes binary and hexadecimal number systems, bus oriented computer systems, I/O scan, interfacing considerations, and introduction to programmable controllers. Prerequisite: AET 110 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
AET 270(4) Course ID: 006378
Advanced PLC Programming
Introduces the student to the wide range of capabilities, beyond basic programming needs, which are available to the modern PLC user. Includes data Manipulation; shift registers and sequencer instructions; binary, octal and hexadecimal numbering systems; and analog inputs and outputs. Prerequisite: EET 276 and EET 277. Lecture/Lab: 4 credits (75 contact hours).
Attributes: Components: Lecture Technical
AET 271(1) Course ID: 005235
Aerospace Studies II
Provides a foundation for understanding how air power has been employed in military and non-military operations to support national objectives. Examines the changing mission of the defense establishment, with particular emphasis on the United States Air Force. Leadership experience is continued through participation in the cadet corps. Lecture, one hour; leadership laboratory, one hour per week. Prerequisite: AFS 111, 113 or PAS approval.
Components: Lecture Attributes: Other
AFS 214(1) Course ID: 005236
Leadership Laboratory II
A continuation of AFS 213. A course designed to develop supervisory management skills to include communications, techniques of critique, social actions, personnel evaluation procedures, problem solving, role playing and field training preparation. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Corequisite: AFS 213.
Components: Laboratory Attributes: Other
AGR 101(3) Course ID: 000750
The Economics of Food and Agriculture
Introduces the field of agricultural economics and some of the basic tools and concepts of decision-making. Illustrates concepts in terms of selected current social and economic issues including the role of agriculture in both a national and international dimension. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
AGR 125(3) Course ID: 002209
Introduction to Fertilizers and Soils
Introduces practical aspects of soils and fertilizers as related to plant growth and production. Lecture: 2 credits (30 contact hours). Lab: 1.0 credits (30 contact hours). Components: Laboratory, Lecture Attributes: Technical
AGR 130(2) Course ID: 005135
Field Applications in Agriculture
Includes methods of solving many application problems encountered in agriculture using applied mathematical and logic skills. Emphasizes practical mathematical skills already acquired from secondary education to address agricultural situations involving computations necessary for upper level courses in agriculture. Requires some knowledge of agricultural situations. Prerequisite: MAT 055 or equivalent placement level. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical
AGR 140(3) Course ID: 000021
Issues In Agriculture
Provides an introduction to agriculture and current issues pertaining to the agricultural industry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
AGR 150(3) Course ID: 000022
Agricultural Power
Provides an introduction to farm equipment and their power units through classroom instruction that concentrates on specific principles that govern the equipment. Includes a lab that applies the principles learned in the classroom. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical
AGR 165(3) Course ID: 000023
Agricultural Seminar
Includes reports and discussion of problems in relation to operations of agricultural business. Offered only in summer. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
AGR 170(3) Introduction to Equipment, Machines, and Engines
Provides an introduction to tractors, combines, balers, forage harvesters and windrowers and various attachments. Includes a study of the operation, adjustments, and repairs. Covers an introduction to engines in which theory and minor repairs will be discussed. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 180(2) Agricultural Internship I
Provides the opportunity to broaden the educational experience through appropriate observation and individualizes work assignments related to the prerequisite and/or co-requisite course objectives. The students will spend 80 hours of supervised field experience in an approved Agricultural Industry. Pre-requisite Or Co-requisite: (AGR 150 and AGR 140) or Consent of Instructor. Lab: 2.0 credits (75 contact hours).
Components: Laboratory
Attributes: Technical

AGR 190(2) Agricultural Internship II
Provides the opportunity to broaden the educational experience through appropriate observation and individualized work assignments related to the prerequisite and/or co-requisite course objectives. The students will spend 80 hours of supervised field experience in an approved Agricultural Industry. Pre-requisite: (AGR 125 and AGR 180 and AGR 170) or Consent of Instructor. Lab: 2.0 credits (75 contact hours).
Components: Laboratory
Attributes: Technical

AGR 200(2) Agricultural Internship III
Provides the opportunity to broaden the educational experience through appropriate observation and individualized work assignments related to the prerequisite and/or co-requisite course objectives. The students will spend 80 hours of supervised field experience in an approved Agricultural Industry. NOTE: Internship III is a variable credit (1-2 credit hours) with a total 2 credit hour program requirement. Students must take a minimum of one credit hour of Internship in their last semester of enrollment or after all agricultural classes have been completed. Pre-requisite: AGR 190 and AGR 190. Lab: 2.0 credits (75 contact hours).
Components: Laboratory
Attributes: Technical

AGR 220(3) Computers In The Agricultural Environment
Provides an introduction to computers as they relate to the agricultural environment. Pre-requisite: CIS 100. Lecture 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 223(3) Introduction to Artificial Insemination for Cattle
The primary objective of this course is to instruct students in artificial insemination techniques in cattle. Topics will include reproductive system, herd health, nutrition, semen handling, and estrus detection and synchronization. Prerequisite: AG 240 or consent of Instructor.
Components: Laboratory, Lecture
Attributes: Technical

AGR 230(3) Career Development in Agriculture
Includes essential aspects of career preparation, entry, adjustment, and advancement in agriculture and related fields. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AGR 240(3) Introduction to Animal Science
Provides a limited overview of the farm species of livestock. Includes the study of major livestock breeds of beef and dairy cattle, sheep, swine, poultry, and horses. Covers management application for livestock production as well as production facilities. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 250(3) Introduction to Plants/Crop Production
Familiarizes students with the basic principles and theories involved in field crop production. Provides a limited understanding of how crops are grown as a prelude to growing crops successfully. Covers pest and pesticides as well as plant disease and protection. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 260(3) Introduction to Sustainable Agriculture
Provides students with a clear perspective on the principles, history, and practices of sustainable agriculture in our local and global communities. Provides understanding of the challenges to sustainability in our present system of agriculture. Enables students to identify principles of sustainable agriculture as they relate to basic production practices. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AGR 270(3) Introduction to Organic Agriculture
Introduces students to the theories, practice, and policy of organic agriculture. Topics covered include the history and the need for organic agriculture, fundamental organic farming practices, organic animal production, the National Organic Program, and economic and marketing considerations for organic products. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AGR 280(3) Livestock Management
Covers management practices involved in the production of swine, horses, cattle, sheep and goats. Emphasizes selection, reproduction, feeding, diseases, marketing, handling, and parasite control. Laboratory exercises teach and reinforce livestock management techniques. Pre-requisite: AGR 240 Introduction to Animal Science. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 290(3) Field Crop Production
Provides knowledge required for development of skills in the following areas: commercial vegetable production; variety selection, production methods; growth and development, harvesting; and pest control. Pre-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 300(3) Herbarious Crop Production
Includes the identification, selection, requirements, care, and uses of herbaceous plant materials commonly found in food/agronomic production, including the scientific, naming and common pests. Annuals, perennials, bulbs, and grasses will be discussed. Lecture/Lab: 3.0 (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 315(3) Fruit and Vegetable Production
Provides knowledge required for development of skills in the following areas: commercial vegetable production; variety selection, production methods; growth and development, harvesting; and pest control. Pre-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AGR 325(3) Field Crop Production
Gain an understanding of the major U.S. field crops with emphasis on their growth requirements, development, uses, management, and physiology. Pre-requisite or Co-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

Course Descriptions
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Title and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGS 245(3)</td>
<td>Course ID: 015722 Pest Management Provides a study of agricultural pest control, including insects, diseases, and weeds, of common agricultural and horticultural crops. Management techniques will also be discussed, including chemical, biological, IPM, and organic methods. Pre-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AGS 255(3)</td>
<td>Course ID: 015723 Crop Scouting Designed to give students a hands-on experience scouting crops to find and identify existing and potential problems related to crop growth and development, fertility, pest pressure, and similar yield reducers. Pre-requisite: AGS 235 Field Crop Production. Lecture: 2.0 credits (30 contact hours).</td>
</tr>
<tr>
<td>AGS 265(2)</td>
<td>Course ID: 015724 Agriculture Business and Records Provides students with an introduction to farm business management and record keeping. Emphasis is placed on business structures, developing a business plan, budgeting and basic accounting principles, agriculture tax code, and record keeping. Lecture: 2.0 credits (30 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AGS 275(3)</td>
<td>Course ID: 015725 Value Added Production Provides students the knowledge and skills necessary to add economic value to raw farm products. Products will be produced and added value will be calculated. Lecture/Lab: 3.0 credits (60 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AGS 285(3)</td>
<td>Course ID: 015726 Farm Financial Management Provides an overview of the basic concepts needed to understand commodity futures and option markets. Risks and rewards are discussed, as well as other topics needed to successfully trade in these markets. Pre-requisite: AGR 101 Economics of Food and Agriculture. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AGS 295(1)</td>
<td>Course ID: 015727 Agriculture Studies Capstone Designed to be taken by the Agricultural Studies student in their final semester, as a programmatic review and course designed to bridge previous courses together. This course seeks to ensure students are ready to enter the workforce upon graduation as well as pass the capstone exam. Pre-requisite or Co-requisite: Sophomore Standing. Flex Semester. Lecture: 1.0 credit (15 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AHS 100(2)</td>
<td>Course ID: 001515 Human Growth and Development Course focus is on the promotion of health through assessment of individuals’ growth and development across the life span. Consideration is given to the family, cultural, environmental, spiritual, and genetic influences when meeting basic human needs. Lecture: 2 credits (30 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AHS 105(3)</td>
<td>Course ID: 000037 Introduction to Health Occupations Basic health care concepts and skills for students interested in or planning a career in health care are introduced. Basic body mechanics, health care delivery systems, caregiver/client relationships, infection control, basic assessment skills, first aid, cardiopulmonary resuscitation certification, team-building skills and problem-based learning are included. Lecture: 2.5 credit hours (37.5 contact hours); Lab: 5 credit hours (30 contact hours). Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical</td>
</tr>
<tr>
<td>AHS 109(4)</td>
<td>Course ID: 001516 Introduction to Body Structure and Functions Provides knowledge of the structure and function of the human body with emphasis on normalcy. Includes interaction of all body systems in maintaining homeostasis and promotes understanding of health maintenance. Not intended as a general education science course. Lecture: 4 credits (30 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AHS 115(3)</td>
<td>Course ID: 003808 Medical Terminology A study of anatomical, physiological and pathological terminology with emphasis on word structures and definition of root words, suffixes, and prefixes from Greek and Latin. Additional emphasis is placed on spelling and pronunciation. Primarily designed for individuals preparing for a career in health care. No previous knowledge of Greek or Latin is required. Lecture: 3 hrs. Components: Lecture Attributes: Course Also Offered in Modules, Technical</td>
</tr>
<tr>
<td>AHS 120(1)</td>
<td>Course ID: 001517 Medical Terminology Basic medical word techniques emphasizing anatomical, physiological and medical terms. Lecture: 1 credit (15 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AHS 130(2)</td>
<td>Course ID: 001518 Infection Control Promotes an understanding of the effects of microorganisms on the human body. Includes standard precautions necessary for health maintenance and infection control, focusing on reducing the incidence of disease. Not intended as a general education science course. Lecture: 2 credits (30 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AHS 140(3)</td>
<td>Course ID: 005520 Introduction to Public and Community Health Introduces students to the management of public health emergencies. Topics include human epidemics and pandemics, agricultural and plant diseases, and emergency medicine. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AHS 201(3)</td>
<td>Course ID: 002358 Management Principles for Allied Health Providers Many allied health practitioners will assume the role of a manager during the course of their career. This course is designed to provide theory and application focusing on the development of strategies and skills to assume professional responsibilities in management and administration. Lecture: 3 credits (45 contact hours). Components: Laboratory, Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AHS 202(3)</td>
<td>Course ID: 005479 Diversity in Health Care Introduces students to health care consumers from various cultural backgrounds. Emphasizes the cultural heritage and diversity existing in contemporary society and cultural factors that affect nontraditional and underrepresented consumers’ access to and use of health care resources. Broadens students’ perception and understanding of health/illness and the variety of meanings these terms carry for members of differing sociocultural populations. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AHS 1151(1)</td>
<td>Course ID: 016312 Medical Terminology Word Roots Emphasizes word structures and the definition of root words, suffixes, and prefixes from Greek and Latin. Lecture: 1 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>AHS 1152(1)</td>
<td>Course ID: 016313 Basic Elements of Terminology Focuses on basic elements of medical words from Greek or Latin roots, together with additional emphasis on spelling and pronunciation. Pre-requisite: AHS 1151. Lecture: 1 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>AHS 1153(1)</td>
<td>Course ID: 016314 Advanced Word Roots &amp; Systems Focuses on advanced word structures and the definition of root words, suffixes, and prefixes from Greek and Latin that are related to human body structures; also includes the study of commonly used medical abbreviations. Pre-requisite: AHS 1152. Lecture: 1 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>AGR 100(3)</td>
<td>Course ID: 016284 Principles of Advanced Integrated Manufacturing Introduces the founding principles/practices of manufacturing safety and health in a modern manufacturing environment. Covers current manufacturing quality control concepts and techniques used in industry with an emphasis on proper statistical methods and relevant software. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AGR 110(3)</td>
<td>Course ID: 016285 Manufacturing Processes and Materials Covers modern manufacturing processes and materials in the production of contemporary consumer and industrial products with an emphasis on front-line manufacturing production. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AGR 129(3)</td>
<td>Course ID: 016286 Introduction to Modern Plastics Manufacturing Introduces common plastic processing techniques, various plastic materials and practical safety requirements for common processing in a plastics manufacturing facility. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Technical</td>
</tr>
<tr>
<td>AIM 100(3)</td>
<td>Course ID: 016583 Basic Safety in Manufacturing Introduces basic manufacturing safety and ergonomic techniques. Pre-requisites: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 1.5 credits (30 contact hours) Components: Lecture</td>
</tr>
<tr>
<td>AIM 1002(1.5)</td>
<td>Course ID: 016584 Manufacturing With Quality Introduces basic quality and auditing techniques as well as basic statistical tools used in the manufacturing environment. Pre-requisite: AIM 1001 or consent of instructor. Lecture/Lab: 1.5 credits (30 contact hours) Components: Lecture</td>
</tr>
</tbody>
</table>
AIM 1101(1) Course ID: 016585
Industrial Materials and Safety
Addresses safety in a traditional and CNC machining environment and introduces industrial materials and their properties. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 1.0 credits (20 contact hours)
Components: Lecture

AIM 1102(1) Course ID: 016586
Metal Removal and Metrology
Introduces the science of measurement and metal removal fundamentals for various industrial processes and materials. Pre-requisites: AIM 1101. Lecture: 1.0 credit (20 contact hours).
Components: Lecture

AIM 1103(1) Course ID: 016588
CNC-Nontraditional Machining
Introduces different types of nontraditional machining and CNC (G and M) coding used to control nontraditional machining. Pre-requisites: AIM 1101 or consent of instructor. Lecture/Lab: 1.0 credits (20 contact hours)
Components: Lecture

AIM 1201(1) Course ID: 016590
Introduction to Plastics
Introduces polymers and the plastic industry. Includes safety in the plastic manufacturing environment as well as the history of plastic polymers and industry advancements. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 1.0 credit (20 contact hours).
Components: Lecture

AIM 1202(1) Course ID: 016591
Plastic Formulation and Design
Presents the different polymer formulations (polymerization) and applications. Discusses product considerations, design for manufacturability (DFM) and extrusion. Pre-requisite: AIM 1201 or Consent of Instructor. Lecture/Lab: 1.0 credits (20 contact hours)
Components: Lecture

AIM 1203(1) Course ID: 016591
Plastic Molding Processes
Presents the industry standards and process techniques of thermoforming, injection molding and laminating. Discusses different types of plastic resin and the proper handling and preparation for production. Pre-requisite: AIM 1202 or Consent of Instructor. Lecture/Lab: 1.0 credit (20 contact hours).
Components: Lecture

AIT 100(4) Course ID: 005955
Power Generation and Utilization
Introduces electrical, hydraulic, and pneumatic power systems used in industry. Provides theory and application of DC and AC, including three-phase power and theory and application of hydraulic and pneumatic power utilizing basic circuits. Prerequisite: Reading and Mathematics assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AIT 103(3) Course ID: 005957
Equipment Installation
Focuses on the installation of electrical, hydraulic, and pneumatic industrial systems. Emphasizes motor installation, wiring/box selection, conduit preparation and installation, hydraulic/pneumatic supply, piping, control, and various lifting and rigging techniques. Prerequisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 3 credits (75 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

AIT 130(4) Course ID: 005958
Measurement and Instrumentation
Covers measurement and instrumentation concepts and applications, choice of proper instrumentation and calibration, manual and automated measurement processes. Prerequisite: MT 120 or higher. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

AIT 135(3) Course ID: 007384
Industrial Refrigeration - I
Presents refrigeration fundamentals and associated components for individuals interested in safe, effective, and efficient maintenance and operation of industrial refrigeration equipment who may also be seeking RETA credentialing. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AIT 160(1) Course ID: 005961
Workplace Safety
Focuses on industrial safety practices. Includes personal safety and equipment, hazard recognition, and safeguards. Covers electrical safety procedures and hazardous materials. Emphasizes OSHA rules and regulations. Prerequisite: Reading and assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

AIT 190(3) Course ID: 006561
Integrated Power Plant Operations
Introduces students to main components found within a fossil power plant. Provides in-depth study of following systems: cooling water system, steam flow system, air flow system, gas flow system, and power distribution. Provides instruction in the integration of systems within a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR instructor consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

AIT 200(4) Course ID: 005963
Process Management and Quality Control
Emphasizes project team organization. Introduces the following concepts: cycle time, production time, first pass yield, and barrier identification. Introduces quality control including understanding acceptance criteria with tolerances, data collection, and data reporting. Prerequisite: AIT 130 or Consent of Instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

AIT 210(4) Course ID: 005964
Advanced Equipment Maintenance
Focuses on maintenance techniques and procedures used with advanced and highly technical industrial machinery, including lubrication, V-belt and shaft drives, couplings, chain drives, bearings and seals, brakes and clutches, machine vibration and analysis, laser alignment, and troubleshooting techniques. Emphasizes the use of hand tools and precision measuring instruments. Prerequisite: Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of Instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

AIT 220(3) Course ID: 006565
The Integrated Power Grid
Introduces students to types of power plants that are tied to the electric grid other than fossil power plants. Provides overviews of nuclear, hydro, and many forms of renewable energy. Includes forms of alternative energy power plants such as solar, wind, and bio-mass power plants. Lecture: 3.0 (45 contact hours)
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AIT 230(3) Course ID: 006569
Integrated Power Plant Operations
Introduces students to main components found within a fossil power plant. Provides in-depth study of following systems: cooling water system, steam flow system, air flow system, gas flow system, and power distribution. Provides instruction in the integration of systems within a fossil fuel power plant, and preparatory instruction for the Edison Electric Institute Examination. Pre-requisite: AIT 220 or Consent of Instructor. Lecture: 3.0 (45 contact hours)
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AIT 235(3) Course ID: 007385
Industrial Refrigeration - II
Offers a second level detailed presentation of primary components and systems utilized within industrial refrigeration plants for individuals interested in safe, effective, and efficient maintenance and operation of industrial refrigeration equipment who may also be seeking RETA credentialing. Pre-requisite: AIT135. Lecture: 3.0 (45 contact hours)
Components: Lecture
Attributes: Technical

AIT 240(4) Course ID: 006573
Analysis of National Electrical Code Development and Structure
Prepares students to take examination for electrical license and employer testing through understanding of content contained in the National Electrical Code. Pre-requisite: Reading assessment score at level of RDG 20 or successful completion of developmental courses prior to RDG 202. Lecture: 4.0 credits (60 contact hours)
Components: Lecture
Attributes: Technical

AIT 250(5) Course ID: 006574
Application of the National Electrical Code for Residential Wiring
Applies articles of National Electrical Code to residential wiring. Pre-requisite: AIT 240 or consent of instructor. Lecture/Lab/ Practicum: 5.0 credits (165 contact hours)
Components: Laboratory, Lecture, Practicum
Attributes: Technical

AIT 270(2) Course ID: 006642
Introduction to Robotics and Programmable Logic Controllers
Examines fundamental architecture of programmable logic controllers as it pertains to industrial application and incorporates ladder logic principles, commonly used instruction language, editing, program navigation and program analysis. Includes the fundamentals of 6-axis robotics including manual manipulation, execution of existing robotic program file, modification of target parameters, and safety interlocks. Pre-requisite: AIT 1501 or Consent of Instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules
AIT 290(0.1 - 5) Course ID: 005965
Instructor Consent Required
Selected Topics in Advanced Integrated Technology
Includes selected topics in integrated technology, due to rapidly changing technology or in response to local needs. Covers topics which may vary from semester to semester at the discretion of the instructor. May repeat course with different topics to a maximum of five credit hours. Prerequisite: Consent of instructor. Lecture/Lab: Varies by topic.
Components: Lecture
Attributes: Technical

AIT 299(4) Course ID: 007386
Advanced Electromechanical Concepts
Investigates advanced concepts in electromechanical engineering. Includes advanced concepts in fluid power, motor controls, instrumentation, and automation controls. Required for students in the Advanced Integrated Technology program who want to pursue the Bachelor of Science Electromechanical Engineering Technology transfer agreement with Murray State University. Prerequisite: AIT 1501 or consent of instructor. Lecture/Lab: 4.0 credits (80 contact hours).
Components: Lecture
Attributes: Technical

AIT 100(2) Course ID: 006150
Basic Electrical Knowledge
Introduces electrical power systems used in industry. Provides introductory theory and application of DC/AC circuits, control transformers, and operation of DC power supplies. Prerequisite: Reading and Mathematics assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

AIT 100(2) Course ID: 006151
Power Development
Introduces electrical power systems used in industrial settings, including basic theory and application of DC generators, alternators, and electric motors. Prerequisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or completion of AIT 1001 or consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

AIT 100(3) Course ID: 006152
Hydraulic/Pneumatic Fundamentals
Introduces basic theory and application of hydraulic and pneumatic industrial power systems. Prerequisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or completion of AIT 1002 or consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

AIT 110(1) Course ID: 006153
Electrical Power Distribution
Provides instruction in the use of electrical power as it applies in industry. Includes AC/DC circuit analysis, AC power generation and three-phase distribution systems, and transformers. Prerequisite: AIT 100 or consent of instructor. Lecture/Lab: 1.0 credits (22.5 contact hours).
Components: Lecture

AIT 110(2) Course ID: 006154
Fluid Power Distribution
Provides instruction in the use of hydraulic and pneumatic power as it applies to industry. Includes basic principles of pressure and flow, basic hydraulic/pneumatic circuits including pumps, valves, cylinders, and motors. Prerequisite: Reading assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or, AIT1101; or consent of instructor. Lecture/Lab: 2.0 credit (45 contact hours).
Components: Lecture

AIT 1201(1) Course ID: 006155
Electrical Installation
Focuses on the installation of electrical industrial systems, including print reading, wiring/box selection, component installation, raceways and conduit, control wiring, and wiring techniques. Prerequisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 1 credit (25 contact hours).
Components: Lecture

AIT 1202(1) Course ID: 006156
Piping, Pneumatic, & Installation
Focuses on the installation of pneumatic industrial systems, including interpretation of drawings and diagrams, fabrication of pipe and pipe fittings, pneumatic supply lines, piping safety, and pipe installation for pneumatic systems. Prerequisite: AIT 1201 or consent of instructor. Lecture/Lab: 1 credit (25 contact hours).
Components: Lecture

AIT 1203(1) Course ID: 006157
Mechanical Installation
Includes motor and machine mounting, speed, torque, power measurement, and various lifting and rigging techniques. Prerequisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 1 credit (25 contact hours).
Components: Lecture

AIT 1301(2) Course ID: 006158
Principles of Instrumentation
Introduces measurement and instrumentation concepts and applications by examining the four main components of instrumentation: temperature, pressure, flow, and level. Prerequisite: (MT 120 or higher) OR consent of instructor. Lecture/Lab: 2.0 credit (45.0 contact hours).
Components: Lecture

AIT 1302(2) Course ID: 006159
Integrated Process Control
Covers measurement and instrumentation concepts and applications and introduces the concept of loop controls and the proper calibration of loops. Examines the importance of PID controllers in a control loop. Prerequisite: (MT 120 or higher) OR consent of instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

AIT 1401(2) Course ID: 006160
Basic Electrical Controls
Provides instruction in the integrated application of basic electrical controls including electrical motor controls with starting, reversing, and stopping devices. Prerequisite: AIT 100 or AIT 1001 or consent of instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

AIT 1402(1) Course ID: 006162
Basic Pneumatic Controls
Introduces the student to pneumatic speed control circuits. Uses air pressure regulators and flow controls to obtain cylinder speeds. Prerequisite: AIT 100 or AIT 1003 or consent of the instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

AIT 1403(1) Course ID: 006163
Basic Hydraulic Controls
Provides instruction in hydraulic speed and pressure control; includes flow control valves, metering circuits, pressure reducing valves, and sequence valves. Prerequisite: AIT 100 or AIT 1003 or consent of the instructor. Lecture/Lab: 1 credit (22.5 credit hours).
Components: Lecture

AIT 1501(2) Course ID: 006144
Intermediate Electrical Controls
Provides instruction in the integrated application of advanced industrial controls for electrical systems. Emphasizes variable frequency drives, proximity sensors, SCR speed controls. Prerequisite: AIT140 or AIT1401 or consent of instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

AIT 1502(1) Course ID: 006165
Intermediate Pneumatic Controls
Provides instruction in the integrated application of advanced industrial controls for pneumatic systems. Emphasizes pneumatic logic circuits. Prerequisite: AIT 140 or AIT 1402 or consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

AIT 1503(1) Course ID: 006166
Intermediate Hydraulic Controls
Provides instruction in the integrated application of advanced industrial controls for hydraulic circuits. Emphasizes hydraulic synchronization circuits and multi-pressure circuits. Prerequisite: AIT 140 or AIT 1403 or consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

AIT 1901(1) Course ID: 006562
Water and Steam Systems
Provides instruction in the main components and integration of water and steam systems within a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental course) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

AIT 1902(1) Course ID: 006563
Air and Gas Flows
Provides instruction in the main components and integration of air and gas flows within a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

AIT 1903(1) Course ID: 006564
Power Distribution
Provides instruction in the main components and integration of the power distribution of a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

AIT 2001(2) Course ID: 006167 04-JAN-2010
Integrated Process Management
Emphasizes project team organization. Introduces the following concepts: cycle time, production time, first pass yield, and barrier identification. Prerequisite: AIT 130 or Consent of Instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

AIT 2002(2) Course ID: 006168
Quality Control and SPC
Introduces quality control including understanding acceptance criteria with tolerances, data collection, and data reporting. Prerequisite: AIT 130 or Consent of Instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

AIT 2101(1) Course ID: 006169
Predictive/Preventive Maintenance and Lubrication
Focuses on maintenance techniques and procedures used with advanced and highly technical industrial machinery. Prerequisite: Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 1.0 credits (22.5 contact hours).
Components: Lecture
AMT 2102(1) Course ID: 006170
Power Transmission Systems
Focuses on maintenance techniques and procedures used with advanced and highly technical industrial machinery including v-belt and shaft drives, couplings, chain drives, bearings and seals, brakes and clutches. Prerequisite: Reading and Mathematics assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Lecture

AMT 2103(2) Course ID: 006171
Advanced Mechanical
36Focuses on troubleshooting techniques necessary for advanced and highly technical industrial machinery. Prerequisite: Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture

AMS 101(2) Course ID: 000907
Introduction to the Army
This introductory level course is designed to give students an appreciation for the role the Army currently plays in our society. The course covers the history of the Army and the roles and relationships of the Army within our society. The course also covers some of the basic skills necessary for today's leader to include oral presentation, time management, map reading, basic rifle marksmanship and squad tactics.
Components: Lecture Attributes: Technical

AMS 102(2) Course ID: 000782
Introduction to Leadership
This course is designed to acquaint the student with the fundamental skills necessary to be a leader, both in military and civilian context. Course also covers basic military map reading skills. Prerequisites: None.
Components: Lecture Attributes: Other

AMS 211(2) Course ID: 004854
Advanced Leadership I
This course focuses on both theoretical and practical aspects of leadership. Students will examine topics such as written and oral communication, effective listening, assertiveness, personality, adult development, motivation, and organizational culture and change. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

AMS 250(1) Course ID: 005380
Basic Military Science Lab
A hands-on practicum which exposes the student to the military skills required for basic technical and tactical competence to enter the Advanced Course, Laboratory, two hours per week and two week-end exercises. May be repeated to a maximum of four credits. Practicum: 1 credit (32 contact hours).
Components: Practicum Attributes: Technical

AMT 100(1) Course ID: 004348
Mathematics
Instruction on the aerodynamic and physical forces acting on an aircraft in flight to be taught by lecture, demonstrations, worksheets and reading assignments. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (75:1 ratio/37 contact hours) Prerequisite: CPU 150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture Attributes: Technical

AMT 102(1) Course ID: 004350
Aircraft Weight and Balance
Teaches knowledge and skills necessary in measuring, calculating, and documenting aircraft weight and balance. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (75:1 ratio/37 contact hours) Prerequisite: CPU 150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture Attributes: Technical

AMT 103(1) Course ID: 004351
Cleaning and Corrosion Control
Provides instruction in the identification, cause, prevention, removal and treatment of corrosion. Also, includes interior and exterior cleaning of the aircraft. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (75:1 ratio/37 contact hours) Prerequisite: CPU 150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture Attributes: Technical

AMT 104(1) Course ID: 004352
Basic Electricity
Provides instruction in basic electricity theory, concepts, components, physics, meter operation and use, battery construction and servicing. Will be taught by lecture, demonstrations, worksheets and reading assignments. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credit (90:1 ratio/45 contact hours) Prerequisite: CPU 150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture Attributes: Technical

AMT 105(1) Course ID: 004353
Fluid Lines and Fittings
Provides an understanding of basic hydraulic functions, the fabrication of tubing and flex hoses as well as seal comparability. Taught by lectures, demonstrations, worksheets, reading assignments and projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours) Prerequisite: CPU 150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture Attributes: Technical

AMT 106(1) Course ID: 004354
Aircraft Drawing and Blueprint Reading
Provides instruction in reading and interpretation of basic industrial and aircraft blue prints. This is taught by lecture, demonstration, worksheet, reading assignments and projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credit (45:1 ratio/22 contact hours) Prerequisite: CPU 150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture Attributes: Technical

AMT 107(1) Course ID: 004355
Physics
Provides instruction in basic principles of physics as related to aviation maintenance. This is taught by lecture, demonstration, worksheet, reading assignments and projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours) Prerequisite: CPU 150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture Attributes: Technical

AMT 110(1) Course ID: 004356
Ground Handling and Servicing
Basic handling and ground service techniques of the aircraft taught by lecture, demonstrations, worksheets and reading assignments. Lecture: 0.5 credit (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours). Prerequisite: CPU 150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture Attributes: Technical

AMT 111(1) Course ID: 004357
Mechanic Privileges and Limitations
Instruction in aircraft mechanic privileges and limitations is taught by lecture, demonstrations, worksheets and reading assignments. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (15:1 ratio/7 contact hours) Prerequisite: CPU 150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture Attributes: Technical

AMT 112(1) Course ID: 004359
Maintenance Forms and Records
Instruction in the use and completion of required forms and records is taught by lecture, demonstrations, worksheets and reading assignments. Lecture: 0.5 credit (8 contact hours) Lab: 0.5 credit (15:1 ratio/7 contact hours). Prerequisite: CPU 150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture Attributes: Technical

AMT 205(1) Course ID: 004360
Non-Metallic Structures
Provides instruction in structural inspection, materials and fasteners, and repair methods is taught by lecture, demonstrations, worksheets and reading assignments. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (120:1 ratio/60 contact hours) Prerequisite: CPU 150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture Attributes: Technical

AMT 211(1) Course ID: 004362
Non-Metallic Structures
Provides instruction in the identification, application and inspection of aircraft finishing materials. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours) Prerequisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of “C” or greater.
Components: Lecture Attributes: Technical

AMT 211(1) Course ID: 004366
Aircraft Finishes
Provides instruction in the identification, application and inspection of aircraft finishing materials. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours) Prerequisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of “C” or greater.
Components: Lecture Attributes: Technical
AMT 215(1)
Airframe Inspection

Course ID: 004368

AMT 223(1)
Aircraft Landing Gear Systems

Course ID: 004370

Instruction includes inspection of airframes to determine
airworthiness. Lecture: 0.5 credits (8 contact hours) Lab:
0.5 credits (45:1 ratio/22 contact hours) Prerequisite: AMT
100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112,
and 113. All AMT courses must be achieved with a grade
of “C” or greater.
Components: Lecture
Attributes: Technical
Inspect, check, service and repair landing gear, retraction
systems, shock struts, bakes, wheels, tires, and steering
system. Instruction provided by lecture, demonstration, and
practical projects. Lecture: 0.5 credits (8 contact hours)
Lab: 0.5 credits (90:1 ratio/45 contact hours) Prerequisite:
AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109,
111, 112, and 113. All AMT courses must be achieved with
a grade of “C” or greater.
Components: Lecture
Attributes: Technical

AMT 225(2)
Aircraft Electrical Systems

Course ID: 004477

Checking, inspecting, troubleshooting and repair of aircraft
electrical system and system components are included.
Instruction is provided by lecture, demonstration, and
practical projects. Lecture: 0.5 credits (8 contact hours)
Lab: 1.5 credits (75:1 ratio/112 contact hours) Prerequisite:
AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109,
111, 112, and 113. All AMT courses must be achieved with
a grade of “C” or greater
Components: Lecture
Attributes: Technical

AMT 229(1)
Aircraft Fuel Systems

Course ID: 004372

Checking, inspection, servicing, repair and troubleshooting
fuel systems and components are covered. Types of
fuels used in various aircraft. Discussion of the problems
associated with fueling and various techniques in fueling
are included. Lecture: 0.5 credits (8 contact hours) Lab: 0.5
credits (90:1 ratio/45 contact hours) Prerequisite: AMT 100,
101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and
113. All AMT courses must be achieved with a grade of “C”
or greater.
Components: Lecture
Attributes: Technical

AMT 231(1)
Course ID: 004373
Cabin Atmospheric Control Systems

Checking, inspection, servicing, repair, and troubleshooting
of the heating, cooling, air conditioning, pressurization,
and oxygen systems are included. Lecture: 0.5 credits (8
contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours)
Prerequisite: AMT 100, 101, 102, 103, 104, 105, 106, 107,
108, 109, 111, 112, and 113. All AMT courses must be
achieved with a grade of “C” or greater.
Components: Lecture
Attributes: Technical

AMT 239(1)
Aircraft Instrument Systems

Course ID: 004376

Check, inspect and troubleshoot the pitot/static system,
floating compass system and the gyros used for flight
instruments. Discussion of the role of mechanics when
working with precision instruments is included. Lecture:
0.5 credits (8 contact hours) Lab: 0.5 credits (15:1 ratio/7
contact hours) Prerequisite: AMT 100, 101, 102, 103,
104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT
courses must be achieved with a grade of “C” or greater.
Components: Lecture
Attributes: Technical

AMT 241(4)
Turbine Engines

Course ID: 004377

Construction, repair and overhaul of turbine engines is
included. Lecture: 2 credits (30 contact hours) Lab: 2
credits (60:1 ratio/120 contact hours) Prerequisite: AMT
100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112,
and 113. All AMT courses must be achieved with a grade
of “C” or greater.
Components: Lecture
Attributes: Technical

232

AMT 243(3)
Course ID: 004378
Reciprocating Engine Theory and Operation

Theory and development of the aircraft internal combustion
engine as well as instruction in the use of engine
construction and repair are covered. Lecture: 0.5 credits
(8 contact hours) Lab: 2.5 credits (45:1 ratio/112 contact
hours) Prerequisite: AMT 100, 101, 102, 103, 104, 105,
106, 107, 108, 109, 111, 112, and 113. All AMT courses
must be achieved with a grade of “C” or greater.
Components: Lecture
Attributes: Technical

AMT 245(1)
Engine Inspection

Course ID: 004379

The operation and inspection of turbine engines is covered.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1
ratio/22 contact hours) Prerequisite: AMT 100, 101, 102,
103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All
AMT courses must be achieved with a grade of “C” or
greater.
Components: Lecture
Attributes: Technical

AMT 247(4)
Reciprocating Engine Overhaul

Course ID: 004380

Inspection, checking, servicing and the repair of opposed
and radial engines and reciprocating engine installation
will be taught by lecture, demonstration, student feedback
and participation. Lecture: 2 credits (30 contact hours) Lab:
2 credits (60:1 ratio/120 contact hours) Prerequisite: AMT
100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112,
and 113. All AMT courses must be achieved with a grade
of “C” or greater.
Components: Lecture
Attributes: Technical

AMT 251(1)
Course ID: 004381
Engine Fuel System Components
Operation, inspection and repair of fuel systems
and components of aircraft fuel systems, by reading
assignments, worksheets, lecture, demonstration and
practical projects. Lecture: 0.5 credits (8 contact hours)
Lab: 0.5 credit (15:1 ratio/7 contact hours) Prerequisite:
AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109,
111, 112, and 113. All AMT courses must be achieved with
a grade of “C” or greater.
Components: Lecture
Attributes: Technical

AMT 253(1)
Engine Fuel Metering Systems

Course ID: 004382

Operation, inspection and repair of fuel metering systems
are taught by reading assignments, worksheets, lecture,
demonstration and practical projects. Lecture: 0.5 credits
(8 contact hours) Lab: 0.5 credit (75:1 ratio/37 contact
hours) Prerequisite: AMT 100, 101, 102, 103, 104, 105,
106, 107, 108, 109, 111, 112, and 113. All AMT courses
must be achieved with a grade of “C” or greater.
Components: Lecture
Attributes: Technical

AMT 255(1)
Induction Systems

Course ID: 004383

Inspection, checking, troubleshooting, servicing and repair
of engine ice and rain control systems, heat exchangers,
superchargers, carburetor air intake and induction
manifolds are taught by reading assignments, worksheets,
lecture, demonstration and practical projects. Lecture: 0.5
credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22
contact hours) Prerequisite: AMT 100, 101, 102, 103,
104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT
courses must be achieved with a grade of “C” or greater.
Components: Lecture
Attributes: Technical

AMT 257(1)
Engine Cooling Systems

Course ID: 004384

Inspection and repair of engine cooling system
components are taught by reading assignments,
worksheets, lecture, demonstration and practical projects.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credit (15:1
ratio/7 contact hours) Prerequisite: AMT 100, 101, 102,
103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All
AMT courses must be achieved with a grade of “C” or
greater.
Components: Lecture
Attributes: Technical

AMT 259(1)
Engine Exhaust Systems

Course ID: 004385

AMT 261(1)
Engine Instrument Systems

Course ID: 004386

AMT 263(1)
Fire Protection Systems

Course ID: 004387

AMT 265(2)
Engine Electrical Systems

Course ID: 004388

AMT 267(1)
Engine Ignition Systems

Course ID: 004389

AMT 269(1)
Lubrication Systems

Course ID: 004390

Inspection and repair of engine exhaust system
components are taught by reading assignments,
worksheets, lecture, demonstration and practical projects.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credit (15:1
ratio/7 contact hours) Prerequisite: AMT 100, 101, 102,
103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All
AMT courses must be achieved with a grade of “C” or
greater.
Components: Lecture
Attributes: Technical
Troubleshooting, servicing and repair of fluid rate of flow
indicating systems and repair of engine temperature,
pressure, and r.p.m. indicating systems are taught by
reading assignments, worksheets, lecture, demonstration
and practical projects. Lecture: 0.5 credits (8 contact
hours) Lab: 0.5 credit (15:1 ratio/7 contact hours)
Prerequisite: AMT 100, 101, 102, 103, 104, 105, 106, 107,
108, 109, 111, 112, and 113. All AMT courses must be
achieved with a grade of “C” or greater.
Components: Lecture
Attributes: Technical
Inspecting, checking, servicing, troubleshooting, and
repair of engine fire detection and extinguishing systems
are taught by reading assignments, worksheets, lecture,
demonstration and practical projects. Lecture: 0.5 credits
(8 contact hours) Lab: 0.5 credit (15:1 ratio/7 contact
hours) Prerequisite: AMT 100, 101, 102, 103, 104, 105,
106, 107, 108, 109, 111, 112, and 113. All AMT courses
must be achieved with a grade of “C” or greater.
Components: Lecture
Attributes: Technical
Repair of engine electrical system components, and to
install, check, and service engine electrical wiring, controls,
switches, indicators, and protective devices by lecture,
reading assignments, demonstration and practical projects.
Lecture: 1 credit (15 contact hours) Lab: 1 credit (60:1
ratio/60 contact hours) Prerequisite: AMT 100, 101, 102,
103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All
AMT courses must be achieved with a grade of “C” or
greater.
Components: Lecture
Attributes: Technical
Operation and overhaul of magneto and ignition harness;
repair of engine ignition system components; and inspect,
check, service, troubleshoot, and repair reciprocating
and turbine engine ignition systems by lecture, reading
assignments, worksheets, demonstration and practical
projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5
credits (120:1 ratio/60 contact hours) Prerequisite: AMT
100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112,
and 113. All AMT courses must be achieved with a grade
of “C” or greater.
Components: Lecture
Attributes: Technical
Purpose, use, and selection of lubricants; repair engine
lubrication system components; and inspect, check,
service, troubleshoot and repair engine lubrication systems
taught by lecture, reading assignments, worksheets,
demonstration and practical projects. Lecture: 0.5 credits
(8 contact hours) Lab: 0.5 credits (150:1 ratio/75 contact
hours) Prerequisite: AMT 100, 101, 102, 103, 104, 105,
106, 107, 108, 109, 111, 112, and 113. All AMT courses
must be achieved with a grade of “C” or greater.
Components: Lecture
Attributes: Technical


ANT 221(3)  Course ID: 002196
Native People of North America
Surveys the aboriginal Native American cultures of North America, and of the impact of four centuries of British, French, Spanish and Russian contact on the Indian communities. Consider the status of Native Americans in present-day North America. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

ANT 223(3)  Course ID: 007065
Culture Change and Globalization
Examines the historical development of anthropology, its role in colonialism and globalization, and types of cultural change processes. Includes discussions of how human societies have struggled for political and economic identity in a post-colonial world and for cultural survival and self-determination. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading or completion of developmental reading courses. Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture
Attributes: Other

ANT 235(3)  Course ID: 002205
Food and Culture
Examines the way values and behaviors related to food production and consumption are shaped by the physical and cultural environment. Draws data from non-Western and Western cultures. Discusses implications of cultural factors for contemporary issues in nutrition. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading or completion of developmental reading courses. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Other

ANT 240(3)  Course ID: 002206
Introduction to Archaeology
Introduces the theories, techniques, and strategies used by archaeologists to recover and interpret information about past cultures. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Other

ANT 241(3)  Course ID: 000045
Origins of Old World Civilization
Surveys cultural developments in the Old World from the earliest times to the beginning stages of civilization. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

ANT 242(3)  Course ID: 000046
Origins of New World Civilization
Surveys the origin and growth of prehistoric Native American cultures as revealed by archaeological data. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

APS 201(20 - 40)  Course ID: 000048
Apprenticeship Studies
Completed upon successful completion of a national or state approved apprentice curriculum (i.e. 2000 hours per year on the job in a supervised work environment and 144 hours per year related classroom instruction). Pre-requisites: Completion of national/state certified apprenticeship program, Lecture/Lab: 20-40 credit hours (144 contact hours).
Components: Lecture
Attributes: Technical

APS 220(3)  Course ID: 000043
Introduction to Cultural Anthropology
Examines variations in beliefs, behaviors, and institutions of different peoples. Acquaints the student with knowledge of how anthropological concepts and knowledge are used to understand and appreciate cultural diversity. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading or completion of developmental reading courses.
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

APT 102(4)  Course ID: 004540
Process Fundamentals
Presents fundamental knowledge necessary for process operations. Develops an understanding of the basic principles of process operations. Covers the fundamental areas of physics, chemistry, and mathematics necessary to understand their complex relationship in industry. Includes topics on fluid behavior, fluid in motion, piping and valves, and the laws and nature of heat. Prerequisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

APT 104(3)  Course ID: 004537
Rotating and Reciprocating Equipment
Presents fundamental knowledge necessary for process operations and entry-level maintenance personnel. Develops an understanding of mechanical energy and the way it is put to use in industrial applications. Covers various forms of energy and how this energy can be converted to perform work. Includes topics on operating instructions, basic troubleshooting skills, and basic maintenance skills typically performed by personnel on pumps, compressors, and prime movers. Prerequisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

APT 105(2)  Course ID: 004538
Process Chemistry
Presents fundamental knowledge of chemistry necessary for process operations. Focuses on the basics of chemistry as they apply to water treatment and hydrocarbon processing. Includes, but are not limited to: basic chemical terminology, molecular formulas, structural formulas, common chemical symbols, and the chemical nature of the operator’s job, work environment, and products. Prerequisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

APT 108(2)  Course ID: 004539
Stationary Equipment
Presents fundamental knowledge in the operation and troubleshooting of stationary equipment. Provides a solid foundation on which to build sound maintenance and operations programs. Covers common equipment designs, operating instructions, troubleshooting aids to help identify malfunctions, guides to handling emergency situations and routine scheduled maintenance tasks. Includes topics on heat exchangers, heat transfer, cooling towers, and refrigeration. Prerequisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

APT 142(4)  Course ID: 004541
Instrumentation
Develops an understanding of how to control and operate processes. Involves work on real life simulators to insure an understanding of process operations has been achieved. Includes measurement fundamentals and control strategies as applied to unit operations, industrial chemical operations, and operating tactics and strategies. Provides basic instruction in process control instrumentation as it relates to the manufacturing operations and will promote smoother, more efficient control of automated systems. Prerequisite: APT 108 with a grade of “C” or greater OR Instructor Consent. Lecture/Lab: 4.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical
APT 144(4) Course ID: 004542
Process Operations
Develops an understanding of modern processing techniques, practical examples of normal and abnormal operating situations, and advanced training in enhancing productivity while cutting operating costs. Provides maintenance personnel and technicians an understanding of the overall process and their roles in maintaining efficient production rates. Involves work on real life simulators to assure an understanding of process operations. Includes unit operations, industrial chemical operations, and a variety of equipment used in industrial processes. Prerequisite: APT 108 with a grade of "C" or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (120 contact hours/60:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

APT 146(2) Course ID: 004543
Process Applications
Develops an understanding of how to control and operate processes. Involves work on real life simulators to assure an understanding of process operations. Includes a study of interactive control strategies in unit operations, industrial chemical operations, and compressor operations and applications. Prerequisite: APT 108 with a grade of "C" or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

APT 148(2) Course ID: 004544
Process Operation Safety
Develops an understanding of how to safely start-up, shutdown, control and operate industrial processes. Includes safe operating tactics and strategies, and procedures as they apply to unit operations and industrial chemical operations. Prerequisite: APT 108 with a grade of "C" or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

APT 154(6) Course ID: 005336
Power Plant Practice
Develops an understanding of power plant basics, systems, and equipment and how they are utilized to safely start-up, shutdown, control, and operate a power generation unit. Includes safe operating tactics, strategies, and procedures as they apply to normal and abnormal unit operations. Applies various safety and protection equipment and procedures to unit operations. Prerequisite: APT 108 with a grade of "C" or greater. Lecture: 4 credits (60 contact hours). Laboratory: 2 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

APT 156(2) Course ID: 005337
Power Plant Protection
Develops an understanding of how to safely start-up, shutdown, control and operate a power generation unit. Includes safe operating tactics, strategies, and procedures as they apply to unit operations and normal and abnormal unit operations. Applies various safety and protection equipment incorporated into unit operations. Prerequisite: APT 108 with a grade of "C" or greater. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

APT 158(3) Course ID: 005510
Lineman Technology I
Trains the student in the use of and/or assembly of materials, tools, and equipment common to the electric utility industry. Provides an overview of the energy delivery system, personal responsibility in regard to safety and job requirements, qualifies the student to climb poles, and trains the student to perform jobs typically required of entry-level apprentices. Prerequisite: APT 108 or Consent of Instructor. Corequisite: APT 159, EET 150, EET 151. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

APT 159(4) Course ID: 005511
Lineman Technology I Lab
Provides hands on experience in the use of and/or assembly of materials, tools, and equipment common to the electric utility industry. Provides an opportunity for the student to climb poles and perform tasks typically required of entry-level apprentices. Prerequisite: APT 108 or Consent of Instructor. Corequisite: APT 158, EET 150, EET 151. Laboratory: 4 credits (240 contact hours).
Components: Laboratory
Attributes: Technical

APT 202(3) Course ID: 004545
Federally Mandated Training
Presents a fundamental knowledge of OSHA, EPA and DOT regulations as concerned with hazardous waste generators and the fundamental knowledge necessary for process operations to qualify for hazardous response to incidents. Covers the required skills to qualify them for HAZWOPER Operations level response. Includes, but are not limited to: HAZCOM, HAZWOPER Operations level, personal protective equipment, working at elevated heights, respirators, SCBAs, and specific hazardous materials. Prerequisite: Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

APT 204(1) Course ID: 004546
Safety Skills Training
Presents a fundamental knowledge of OSHA, EPA and DOT regulations as concerned with hazardous waste generators. This fundamental knowledge is necessary for process operations to qualify for hazardous response to incidents. The student will be trained in the required skills to qualify them for HAZWOPER Operations level response. The course studies include, but are not limited to: Hazcom, Hazwoper Operations level, personal protective equipment, working at elevated heights, respirators, SCBAs, and specific hazardous materials. (This course will be presented in a semester format.) Prerequisite: APT 148 with a grade of "C" or greater. Corequisite: APT 202. Laboratory: 1 credit (60 contact hours/60:1 ratio).
Components: Laboratory
Attributes: Technical

APT 251(2) Course ID: 001036
Application of Process Operations
Prepares the student to demonstrate a working knowledge of the application of the various components involved in process operations. Prerequisite: Instructor Consent. Lecture/Lab: 2.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

APT 258(3) Course ID: 005512
Lineman Technology II Lab
Expands training in the use of and/or assembly of materials, tools, and equipment common to the electric utility industry. Provides pole top rescue techniques, Kilo-Watt Hour (KWH) meter reading, installation of overheard service, voltage testing, operation of bucket truck, splicing and other knowledge and skills typically required of intermediate-level apprentices. Prerequisite: APT 158, APT 159, EET 150, EET 151. Corequisite: APT 259. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

APT 259(4) Course ID: 005513
Lineman Technology II Lab
Provides hands on experience in the use of and/or assembly of intermediate materials, tools, and equipment common to the electric utility industry. Provides an opportunity for the student to load/unload and set poles, operate bucket truck and other hydraulic equipment, and perform tasks typically required of intermediate-level apprentices. Prerequisite: APT 158, APT 159, EET 150, EET 151. Corequisite: APT 258. Laboratory: 4 credits (240 contact hours).
Components: Laboratory
Attributes: Technical

APT 291(2 - 3) Course ID: 001037
Instructor Consent Required
Special Problems in Applied Process Technologies
Provides additional experience in identified areas of student's need. The subject area and/or tasks must be approved by an assigned instructor. Must also have a component where the student is evaluated by an industry professional. Prerequisite: Consent of Instructor. Discussion: 2.0 - 3.0 credits (45-135 contact hours).
Components: Discussion
Attributes: Technical

APT 293(1 - 6) Course ID: 001039
Instructor Consent Required
Cooperative Education Program
For students approaching the major career transition from college to work as a co-op student. Provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Co-op Education program receive compensation for their work. Prerequisite: Consent of Instructor. Co-Op: 1-6 credits (75-450 contact hours).
Components: Co-Op
Attributes: Technical

A!I Academic Related Instruction

ART 100(3) Course ID: 000494
Developmental Writing
This course is designed to assist students who have demonstrated specific needs in the area of writing. Students are provided individualized or small group instruction. This course includes, but is not limited to, reviewing punctuation skills, reviewing grammar skills, and/or writing short paragraphs. This course may be repeated one time. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English

ART 103(3) Course ID: 003845
Remedial Math
This course is designed to assist students who have demonstrated specific needs in the area of math. Students are provided individualized or small group instruction. This course includes, but is not limited to, basic mathematics skills and introductory algebraic skills. This course may be repeated one time. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

ART 104(3) Course ID: 004346
Introduction to African Art
Examines the arts of Africa, including sculpture, painting, pottery, textiles, architecture, altar arts, human adornment and performance art, on the basis of style, iconography, and function, and in relation to religious, political, market and daily contexts. Explores the ways in which Africa has been conceived and deconstructs the assumptions shaping each approach. Addresses the processes (and problems) of collecting and displaying African art throughout the course. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ART 105(3) Course ID: 000449
Introduction to Art
Provides a basic overview of the study, language, history and cultural relevance of visual art and is designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory studio experiences. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

ART 114(3) Course ID: 004346
Introduction to African Art
Examines the arts of Africa, including sculpture, painting, pottery, textiles, architecture, altar arts, human adornment and performance art, on the basis of style, iconography, and function, and in relation to religious, political, market and daily contexts. Explores the ways in which Africa has been conceived and deconstructs the assumptions shaping each approach. Addresses the processes (and problems) of collecting and displaying African art throughout the course. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
Course Descriptions

ART 105(3) Course ID: 000035
Ancient Through Medieval Art History
Surveys the historical development of art and architecture with primary emphasis on cultures of Egypt, Western Asia, Greece, Rome and Medieval Europe. Pre-requisite: English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 106(3) Course ID: 000036
Renaissance Through Modern Art History
Surveys the historical development of Western art and architecture from the 14th Century through the present. Pre-requisite: English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 108(3) Course ID: 007380
Introduction to World Art
Provides a basic overview of the study, language, history, and relevance of the visual art from world cultures and designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory visual experiences. Pre-requisite: RDG 185, ENC 091. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ART 110(3) Course ID: 004110
Drawing I
Introduction to basic drawing skills and concepts. Projects in line, value, space and composition are among the topics that will be explored in a variety of media. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 112(3) Course ID: 004111
2-Dimensional Design
Investigates design principles of balance, unity and variety, emphasis, and rhythm, and their application to the elements of art, including line, shape, value and color. Uses a variety of media. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 113(3) Course ID: 004112
3-Dimensional Design
Investigates three-dimensional form and spatial design, including line, plane, mass, shape and structure. Includes the study of various materials, tools, and sculptural techniques. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 121(3) Course ID: 004015
School Art
Introduction to art and to the teaching of art in the lower (1-3) elementary grades.
Components: Laboratory, Lecture

ART 201(3) Course ID: 000621
Ancient Art History
Examines the art and architecture of the ancient Mediterranean, focusing on one or more of the cultures of Greece, Rome, Egypt, and the Near East. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 202(3) Course ID: 000457
Medieval Art History
Examines the architecture, sculpture, painting, and related arts from the rise of Christianity to the beginnings of the Renaissance. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

ART 203(3) Course ID: 000186
Renaissance Art History
Examines the art in Europe from the 14th to 18th centuries, with emphasis on the major styles, artists, and developments from the early Renaissance through the age of the Baroque. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 204(3) Course ID: 000086
Modern Art History
Examines the visual arts from the 18th through the 20th centuries, with primary emphasis on Europe and the United States. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 205(3) Course ID: 015848
African American Art
Provides an introduction to African American Art. Examines the creation of the painting, sculpture, graphic arts, photography, and performance art from the early settlements of the United States to the present. Pre-requisite: Current placement scores for college level-reading established by KCTCS, or completion of RDG 030 or RDG185, and ENC 091. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 206(3) Course ID: 000017
Introduction to Art Education
Investigates the theoretical, historical, psychological, and sociological foundations of art education in a lecture-lab format. Provides a critical examination of individual and group activities currently offered in the elementary school art program and includes lectures, curriculum design, evaluation of processes and techniques. Exploration and analysis of design, media and concepts, with special attention to classroom application. ART 206 satisfies the state art requirement for general elementary teacher requirement certification (4 hours of field work required). Lecture: 1 hour; Laboratory: 2 hours.
Components: Laboratory, Lecture
Attributes: Other

ART 210(3) Course ID: 004114
Drawing II
Advanced studio investigation of drawing techniques and concepts. Projects in line, value, composition and space will be investigated through individual development of style and expression, with extensive use of figure models. Prerequisite: ART 110. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 211(3) Course ID: 004113
Life Drawing
Introduces basic life drawing skills and concepts. Explores topics such as projects in line, value, space, and composition in a variety of media with the human form as the subject matter. Includes drawings in class from a nude human model. Pre-requisite: ART 110. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 220(3) Course ID: 004115
Painting I
Studio investigation of the technical and formal concerns of painting, including an understanding of color theory, materials, paint application, and image making. Prerequisite: ART 110 or Consent of Instructor. Lecture: Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 221(3) Course ID: 004116
Painting II
Includes advanced studio investigation of the technical and formal concerns of painting. Continues the development of individual style and expression. Prerequisite: ART 220. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 231(3) Course ID: 007075
Jewelry/Metals I
Introduces the aesthetic and technical issues relating to basic metalsmithing techniques such as sawing, filing, piercing, forging, forming, soldering, and finishing. Employs demonstrations and hands-on work to present the concepts of metal manipulation. Emphasizes instructor-led critiques. Provides an introduction to historical and contemporary metal work. Lecture/Lab: 3.0 credit (90 contact hours).
Components: Lecture

ART 232(3) Course ID: 007076
Jewelry/Metals II
Continues the development of techniques introduced in Jewelry/Metals I. Emphasizes problem-solving skills and the development of personal creativity. Stresses the aesthetic and technical issues relating to raising, enameling, forging, casting, and more advanced sculptural processes. Includes discussion and critique as integral parts of the coursework. Pre-requisite: ART 231 or Consent of Instructor. Lecture/Lab: 3.0 credit (90 contact hours).
Components: Lecture

ART 240(3) Course ID: 004117
Ceramics I
Introduces a variety of forming and finishing techniques used in working with clay and glaze. Hand building, wheel throwing, surface alteration and glazing will be investigated, along with a brief overview of ceramic history, aesthetics and studio safety. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 241(3) Course ID: 004118
Ceramics II
Continues studio investigation of ceramic techniques in hand-building and/or wheel throwing, glazing, surface decoration, glazing and firing. Continued development of individual style and personal expression. Prerequisite: ART 240. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 251(3) Course ID: 016141
Graphic Communication I
Provides an introduction to graphic design principles and methods and techniques used to incorporate type and image. Applies the elements and principles of design and basic color theories for design concepts. Pre-requisite or Co-requisite: ART 110 & ART 112, OR consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 252(3) Course ID: 016142
Typography
Introduces core principles of typography through a series of progressively complex studio assignments supported by readings, lectures, and software tutorials. Pre-requisite: ART 250 OR consent of instructor. Lecture/Lab: 3.0 credit hours (90 contact hours).
Components: Lecture
Attributes: Other
ART 253(3)  
Course ID: 016143
Graphic Communication II
Expands proficiency in all aspects of the design process by continuing the development of graphic design principles, methods, and techniques introduced in Graphic Communication I. Incorporates industry-standard page layout, illustration, and image editing software. Includes discussion and critique as integral parts of the coursework. Prerequisite: ART 251 OR consent of instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 254(3)  
Course ID: 016144
Design Process and Presentation
Continues investigation of design principles, process, vocabulary, methods, and presentation. Transitions from theoretical to applied problems with a focus on portfolio preparation and professionalism in communication. Prerequisite: ART 251 OR consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 260(3)  
Course ID: 004119
Sculpture I
Studio investigation of the technical and formal concerns of three-dimensional expression. Basic sculptural methods of modeling, casting, carving and assembling will be explored in a variety of media. Prerequisite: ART 110, ART 130. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 261(3)  
Course ID: 006207
Sculpture II
Continues the development of sculptural techniques started in Sculpture I. Exploration of subject matter and personal creativity will be emphasized. Students will develop and utilize problem solving skills. Prerequisite: ART 260 or consent of instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 270(3)  
Course ID: 006208
Printmaking I
Introduces the possibilities and potential of the printmaking media for generating fine arts ideas and images. Explores traditional and contemporary printmaking processes of monotype and monoprint, relief, lithography, intaglio, and stencil. Covers black and white and multiple color printing methods. Introduces printmaking vocabulary and aesthetics. Prerequisite: ART 110 and ART 120, or consent of instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 271(3)  
Course ID: 006209
Printmaking II
Explores concepts and techniques in intaglio, lithography, screen-print and/or relief printing with an introduction to contemporary computer/digital aided printmaking processes. Stresses individual expression by creating original imagery while continuing to learn about printmaking as a process. Emphasizes two-dimensional design and color theory concepts and drawing skills. Prerequisite: ART 270 or permission of instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 280(3)  
Course ID: 006210
Beginning Film Photography
Introduces black and white film photographic processes including the use of a camera and the darkroom. Stresses technical and compositional aspects of photography as an art medium. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 281(3)  
Course ID: 006211
Digital Photography I
Introduction to the skills, techniques and applications needed to create and manipulate digital photographs and to develop an understanding of photography as a fine art medium. Instruction will include the use of the digital camera and its controls to compose and capture photographs, scanning, printing and using Adobe Photoshop as a "digital darkroom." Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 282(3)  
Course ID: 006212
Digital Photography II
Emphasizes the creation of fine art photographs that reflect the intent and vision of the photographer. Stresses the technical and aesthetic issues relating to image capture, manipulation, printing and presentation. Explores visual and conceptual skills, professional workflow and photographic history. Prerequisite: ART 281 or permission of instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 290(3)  
Course ID: 006213
Survival Skills for Artists
Introduces skills needed to attain a higher level of education and/or a career in the visual arts. Explores the wording and formatting of credentials and statements. Covers the critical language of art, digital and printed portfolios, exhibiting artwork, marketing, career opportunities, the hazards of art materials and setting up an art studio. Prerequisite: 9 credits of ART 100 / 200 level classes or permission of instructor. Lecture: 2 credits (30 contact hours), Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture

ART 298(1 - 3)  
Course ID: 006214
Instructor Consent Required
Directed Studies in Art: (Topic)
Provides an opportunity to cover topics outside the normal range of studio classes or further investigation of topics and techniques covered in studio classes. Prerequisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory
Attributes: Other

ART 100(1)  
Course ID: 007381
Art Theory and Design
Provides a basic overview of art theory, philosophy, elements, and principles of design. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

ART 100(2)  
Course ID: 007382
Art Media and Critique
Introduces students to different forms of art, the media to create art, and the analysis and critique of art using terminology and vocabulary specific to the visual arts. Prerequisite: ART 1001. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ART 100(3)  
Course ID: 007383
Introduction to Art History
Introduces students to the developments in art from the prehistoric through contemporary eras. Pre-requisite: 1001. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ASC 106(3)  
Course ID: 000056
Agricultural Animal Science
Relationships of food production and consumption to income of humans throughout the world; major livestock (beef and dairy cattle, sheep, swine, poultry, and horses) production areas of the world; relationships between the animal merit and yield of retail cuts of meat; identification of skeletal components; identification and functions of reproductive and digestive tract components; characteristics of breeds of beef and dairy cattle, sheep, swine, poultry and horses. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

ASL 101(3)  
Course ID: 005753
American Sign Language I
A functional-notional approach to learning beginning American Sign Language (ASL). Development of basic knowledge of and understanding of conversational ASL and cultural features of the language and community. Lecture: 3 credits (45 contact hours). Laboratory: 0 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University)

ASL 102(3)  
Course ID: 005754
American Sign Language II
Continued development of basic knowledge of and understanding of conversational ASL and cultural features of the language and community. Prerequisite: ASL 101 with a minimum grade of “C” or permission of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 0 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University)

ASL 201(3)  
Course ID: 005755
American Sign Language III
Development of intermediate expressive and receptive ASL skills and cultural features of the language and community. Prerequisite: ASL 202 with a minimum grade of “C” or permission of instructor.
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University)

ASL 202(3)  
Course ID: 005756
American Sign Language IV
Continued development of intermediate expressive and receptive ASL skills and cultural features of the language and community. Prerequisite: ASL 201 with a minimum grade of “C” or permission of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 0 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University)

AST 101(3)  
Course ID: 000058
Frontiers of Astronomy
Covers the life histories of stars, the nature of black holes and quasars, the origin of the universe, planets of the solar system, and the possibilities for extraterrestrial life. Includes observation-based activities. A one-semester introductory course for non-science majors. Credit is not given to students who have received credit for AST 191 or AST 192. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

AST 155(3)  
Course ID: 006341
Astrobiology
Examines topics related to the origins of planets, the requirements for life, the search for life away from Earth, the societal implications of discovering other forms of life, and the future of life on Earth and in space from a multidisciplinary perspective. Credit not available for both BIO 155 and AST 155. Prerequisite: MT/005 and EN/001 for equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: BIO 155
Attributes: SN - Science

AST 191(3)  
Course ID: 000060
The Solar System
Emphasizes the nature, origin, and evolution of planets, satellites, and other objects in the Solar System. Includes historical astronomy, the naked eye phenomena of the sky, and modern solar system discoveries made by spacecraft. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

ASL American Sign Language

AST Astronomy
AST 192(3) Course ID: 000062
Stars, Galaxies and the Universe
Emphasizes the Sun and the universe outside the Solar System. Has a principal theme of the origin and evolution of stars, galaxies and the universe at large. Includes topics of black holes, quasars, and the big bang model of the universe. Prerequisite: (MT 120 or MT 122) or a minimum ACT math score of 18. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science Laboratory

AST 195(1) Course ID: 000065
Introductory Astronomy Laboratory
Involves performance of exercises in both planetary and stellar astronomy, including Kepler’s Laws of Planetary Motion and Newton's Laws of Motion. Examines the functions and limitations of different types of telescopes and mounts. Includes observation of the sun, moon, planets, binaries, galaxies, and nebulae. Prerequisite or corequisite: AST 101 or AST 191 or AST 192; MT 120 or two years of high school algebra; or consent of the instructor.
Components: Laboratory
Attributes: SL - Science Laboratory

ATE 100(1) Course ID: 007113
Aviation Math
Covers mathematics related to the aerodynamic and physical forces acting on an aircraft in flight. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 1.0 credit (40.5 contact hours).
Components: Lecture
Attributes: Technical

ATE 102(3) Course ID: 007114
Introduction to Aircraft Maintenance I
Teaches knowledge and skills necessary in measuring, calculating, and documenting aircraft weight and balance. Provides instruction in the identification, cause, prevention, removal and treatment of corrosion. Includes interior and exterior cleaning of the aircraft. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 104(3) Course ID: 007115
Introduction to Aircraft Maintenance II
Provides instruction in reading and interpretation of basic industrial and aircraft blue prints, basic handling and ground service techniques of the aircraft, the use of maintenance publications, aircraft mechanic privileges and limitations, and the use and completion of required forms and records. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 106(3) Course ID: 007116
Introduction to Aircraft Maintenance III
Provides an understanding of basic hydraulic functions, the fabrication of tubing and flex hoses as well as seal comparability. Includes instruction in structural inspection, materials and fasteners, and repair methods. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 202(3) Course ID: 007118
Aircraft Structures I
Covers the principles of sheet metal layout, bending, and rivet installation. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 204(3) Course ID: 007119
Aircraft Structures II
Provides instruction in the inspection, service and repair of welded aircraft assemblies and structures, metal and composite aircraft structures, including laminated and honeycomb structures, plastic materials, interior furnishings and access openings. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 206(3) Course ID: 007120
Aircraft Structures III
Includes inspection of airframes to determine airworthiness. Covers the methods and techniques used in the assembly of major components of the airframe, and the rigging of primary, secondary and auxiliary control surfaces. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 208(3) Course ID: 007121
Aircraft Structures IV
Provides instruction in the repair of wood structures, the inspection, testing, repair, selection, and installation of aircraft fabric covering; and the identification, application and inspection of aircraft finishing materials. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 222(3) Course ID: 007122
Aircraft Systems I
Covers the repair of hydraulic and pneumatic power systems components. Includes the inspection, check, service, and repair of landing gear, retraction systems, shock struts, brakes, wheels, tires, and steering systems. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 224(3) Course ID: 007123
Aircraft Systems II
Covers checking, inspecting, troubleshooting and repair of aircraft electrical system and system components. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 226(3) Course ID: 007124
Aircraft Systems III
Covers checking, inspecting, servicing, repair and troubleshooting of fuel systems and components, heating, cooling, air conditioning, pressurization, and oxygen systems; and rain and ice control and removal systems. Includes types of fuels used in various aircraft and a discussion of the problems associated with fueling and various techniques in fueling. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 228(3) Course ID: 007125
Aircraft Systems IV
Includes discussion, inspection, and troubleshooting of navigational and communication systems, fire detection and extinguishing systems. Covers the inspection, troubleshooting, and repair of heading, speed, altitude, time, attitude, temperature, pressure and position indicating systems and installation of instruments. Provides for the inspection, checking and servicing of speed and take-off warning systems, electrical brake controls, antiskid systems, and autopilot systems; and the pitot-static system, floating compass system and the gyros used for flight instruments. Includes the role of mechanics when working with precision instruments. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 242(3) Course ID: 007126
Aircraft Powerplants I
Covers theory and development of the aircraft internal combustion engine as well as instruction in the use of engine construction and repair. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 244(3) Course ID: 007127
Aircraft Powerplants II
Covers inspection, checking, servicing and the repair of opposed and radial engines and reciprocating engine installation. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 248(3) Course ID: 007128
Aircraft Powerplants III
Includes construction, repair and overhaul of turbine engines. Covers the operation and inspection of turbine engines. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 248(3) Course ID: 007129
Aircraft Powerplants IV
Includes construction, repair and overhaul of turbine engines. Covers the operation and inspection of turbine engines. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 252(3) Course ID: 007130
Aircraft Powerplants V
Includes the purpose, use, and selection of lubricants; repair of engine lubrication system components; and the inspection, checking, servicing, troubleshooting and repairing of engine lubrication systems, propeller synchronizing and ice control systems, fixed-pitch, constant-speed, and feathering propellers, and propeller governing systems. Provides for the identification and selection of propeller lubricants, balance propellers, and repair of propeller control system components. Covers the installation, troubleshooting and the removal of propellers. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of “C” or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical
ATE 254(3)  Course ID: 007131
**Aircraft Powerplant Systems II**
Covers troubleshooting, servicing and repair of fluid flow of indicating systems and repair of engine temperature, pressure, and rpm indicating systems. Includes the operation and overhaul of magneto and ignition harness; repair of engine ignition system components; and the inspection, check, service, troubleshooting, and repair of reciprocating and turbine engine ignition systems.
Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of "C" or greater or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 259(3)  Course ID: 007132
**Aircraft Powerplant Systems III**
Includes the inspection, checking, troubleshooting, servicing and repair of engine ice and rain control systems, heat exchangers, superchargers, carburetor air intake and induction manifolds. Covers the repair of engine electrical system components, and the installing, checking, and servicing of engine electrical wiring, controls, switches, indicators, and protective devices. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of "C" or greater or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 258(3)  Course ID: 007133
**Aircraft Powerplant Systems IV**
Covers the operation, inspection and repair of fuel systems and components of aircraft fuel systems and fuel metering systems. Includes the inspection and repair of engine cooling system components, engine exhaust system components, and engine fire detection and extinguishing systems. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of "C" or greater or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

**Autos**

**AUT 110(3)  Course ID: 001050**
**Brake Systems Lab**
Develops skills in the diagnosis and repair of hydraulic and anti-lock brake systems, covering both disc and drum type braking systems. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Prerequisite or co-requisite: AUT 110 Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

**AUT 130(3)  Course ID: 001052**
**Manual Drive Train and Axles Lab**
Involves an in-depth study of principles of operation, construction, and service of manual transmissions and related drive train components (differentials, clutches, u-joints, rear wheel drive and 4-wheel drive). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

**AUT 131(2)  Course ID: 001053**
**Manual Drive Train and Axles Lab**
Develops skills in the diagnosis and repair of manual transmissions and related drive train components (differentials, clutches, u-joints, rear wheel drive, and 4-wheel drive). The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Prerequisite or co-requisite: AUT 130 Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

**AUT 140(3)  Course ID: 001054**
**Basic Fuel and Ignition Systems Lab**
Includes the theory, component identification, application, operation, service and repair of the basic automotive ignition, fuel, and emission systems, including related components. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

**AUT 141(2)  Course ID: 001055**
**Basic Fuel and Ignition Systems Lab**
Provides skills necessary to diagnose and repair the automotive basic ignition, fuel, and emission systems and related components are developed. The student may be provided a unique work experience alternating between periods of work on-site and work in a classroom laboratory setting. Prerequisite or Co-requisite: AUT 140 Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

**AUT 142(3)  Course ID: 001056**
**Emission Systems Lab**
Presents the theory, component identification, application, operation, service and repair of advanced automotive ignition, fuel, and emission systems, including related components. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

**AUT 143(2)  Course ID: 001057**
**Emission Systems Lab**
Introduces skills necessary to diagnose, service and repair automotive advanced ignition, fuel, and emission systems, including related components are developed. The student may be provided a work study experience alternating between periods of work off campus and work in a classroom laboratory setting. Prerequisite or Co-requisite: AUT 142 Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

**AUT 160(3)  Course ID: 001058**
**Suspension and Steering**
Presents the automotive suspension system, the diagnosing of suspension problems, identifying components, recognizing tire wear problems, wheel balancing and the use of alignment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

**AUT 161(2)  Course ID: 001059**
**Suspension and Steering Lab**
Introduces skills necessary in the diagnosis and repair of automotive suspension systems, wheel alignment, and wheel balancing. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Prerequisite or Co-requisite: AUT 160 Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

**AUT 180(3)  Course ID: 001060**
**Automatic Transmission/Transaxle**
Develops diagnostic and repair skills related to the repair of rear and front wheel automatic transmissions and transaxles. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Prerequisite or Co-requisite: AUT 180 Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

**AUT 198(1)  Course ID: 001062**
**Instructor Consent Required**
The Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students who participate in the practicum do not receive compensation. Prerequisite: Permission of the Instructor
Components: Co-Op Attributes: Technical

**AUT 199(1)  Course ID: 001063**
**Instructor Consent Required**
The Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students who participate in the Cooperative Education program receive compensation for their work. Prerequisite: Permission of the Instructor
Components: Co-Op Attributes: Technical

**AUT 240(3)  Course ID: 001064**
**Computer Control Systems and Diagnosis**
Provides the comprehensive diagnostics of on-board computer control systems, including distributorless ignition systems. Presents the problem solving process including flowchart reading. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

**AUT 241(2)  Course ID: 001065**
**Computer Control Systems and Diagnosis Lab**
Introduces the skills necessary to diagnose and repair drivability problems associated with on-board computer control systems. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Prerequisite or Co-requisite: AUT 240 Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

**AUT 275(3)  Course ID: 006889**
**Hybrid and Electric Vehicle Technology**
Focuses on the theories, principles, and diagnosis relating to hybrid automobiles. Pre-requisite: ADX 120 and ADX 121 and ADX 260 and ADX 261. Co-requisite: AUT 276. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

**GROL+Radar Exam Prep**
Provides instruction and preparation for the FCC General Radio Operators License and Radar endorsement exams. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

**AUT 140+Radar Exam Prep**
Provides instruction and preparation for the FCC General Radio Operators License and Radar endorsement exams. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

**AUT 130+Radar Exam Prep**
Provides instruction and preparation for the FCC General Radio Operators License and Radar endorsement exams. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

**AUT 120+Radar Exam Prep**
Provides instruction and preparation for the FCC General Radio Operators License and Radar endorsement exams. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

**AUT 110+Radar Exam Prep**
Provides instruction and preparation for the FCC General Radio Operators License and Radar endorsement exams. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Hybrid and Electric Vehicle Technology Lab
Focuses on the theories, principles, and diagnosis relating to hybrid automobiles. The student may be provided a work-study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: ADX 120 and ADX 121 and ADX 260 and ADX 261. Co-requisite: AVN 111 with C or better. Components: Laboratory, Lecture, Attributes: Technical

BAM Building and Apartment Maintenance

BAM 100(6) Introduction to Building & Apartment Maintenance
This course covers the basic aspects of framing, roofing, window, door, and stair maintenance. The student will receive training in the proper use of ladders and in the handling and storage of building materials. Prerequisite: BAM 100. Components: Lecture, Attributes: Technical

BAM 110(3) Residential Maintenance Carpenter
This course covers the basics of exterior framing, roofing, finish, repair, painting; window, door, and floor coverings; laying composition and vinyl flooring; and maintaining ceramic tile. Prerequisite: BAM 100. Components: Lecture, Attributes: Technical

BAM 120(3) Residential Interior Maintenance
This course covers the basics of drywall hanging, finishing, and repair; painting; window, door, and floor coverings; laying composition and vinyl flooring; and maintaining ceramic tile. Prerequisite: BAM 100. Components: Lecture, Attributes: Technical

BAM 140(3) Residential Maintenance Wiring
This course covers the basics of electric theory, wire and cables, fixtures and devices, and troubleshooting and maintenance wiring. Prerequisite: BAM 100. Components: Lecture, Attributes: Technical

BAS Business Administration System

BAS 110(3) Course ID: 016239
Worksheets in Business Applications
Focuses on the application of worksheet features to business practices. Provides students with the knowledge and skills necessary to use the worksheet enhanced features to derive charts, graphs and tables to aid in analyzing business data. Provides students the opportunity to think critically and find solutions to realistic business problems through use of available data analysis tools. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture: 3 credits (45 contact hours). Components: Lecture, Attributes: Technical

BAS 120(3) Personal Finance
Provides information needed to make intelligent choices and to take effective action in the management of personal resources. Applies financial planning, buying, borrowing, saving, budgeting, investing, insurance, and taxes to personal finances. Pre-requisite: Completion of or concurrent enrollment in MAT 65 or higher level math or Consent of Instructor. Lecture: 3 credits (45 contact hours). Components: Lecture, Attributes: Course Also Offered in Modules, Technical

BAS 125(3) Social Media Marketing: Fundamental Concepts, Skills, and Strategies
Cultivates a basic to intermediate understanding of social media history, terminology, and concepts as they apply to the marketing and business sectors. Integrates a working knowledge of platform management and simple social media marketing strategy. Lecture: 3 credits (45 contact hours). Pre-requisite: Placement scores for college level reading or completion of developmental reading courses. Components: Lecture, Attributes: Technical

BAS 126(3) Social Media Marketing: Project Management and Implementation Strategies
Prepares students to create a comprehensive social media marketing campaign, applicable to any business or organization. Learn intermediate social media strategies and best practices for engagement. Introduces the student to social media policy, procedure, and engagement guidelines that will explain how all stakeholders and groups in an organization should monitor and participate in social media interactions. Pre-requisite: BAS 125. Lecture: 3.0 credits (45 contact hours). Components: Lecture, Attributes: Technical

BAS 155(3) Personal Selling
Introduces the professional selling process involving a series of interrelated activities with emphasis on planning and delivery of sales presentations and simulation and role playing of sales techniques. Examines the six selling steps including—prospecting, qualifying, presenting, answering objections, closing, and the after-sale service. Lecture: 3.0 credits (45 contact hours). Components: Lecture, Attributes: Technical

BAS 160(3) Introduction to Business
Introduces business careers, terminology, and the interrelationships of business topics. Presents the complexities of business and the impact on communities and their economies. Lecture: 3.0 credits (45 contact hours). Components: Lecture, Attributes: Course Also Offered in Modules, Technical

BAS 170(3) Entrepreneurship
Presents topics such as product development, finance, and business plan preparation and their impact on entrepreneurship/small business management. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture, Attributes: Course Also Offered in Modules, Technical

BAS 200(3) Small Business Management
Introduces the facets of establishing and operating and/or owning a small business, including legal forms of business organization, finance, accounting, insurance, governmental regulations and assistance, economies, marketing, and management principles. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture, Course Equivalents: MGT 200. Attributes: Course Also Offered in Modules, Technical
BAS 212(3) Course ID: 000105
Introduction to Financial Management
Introduces the basic concepts of managing financial resources and techniques of financial analysis used for practical business decisions. Demonstrates use of financial ratios to evaluate the past performance of the firm, financial planning techniques, the effect of leverage on profitability and risk, the time value of money, and contemporary approaches to working capital management and capital budgeting. Computes financial ratios, constructs pro forma financial statements, conducts break-even analysis, and computes present and future values of funds. Prerequisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 250(1) Course ID: 000106
Business Employability Seminar
Creates an error-free portfolio of business employment documents, using computer technology to assist with composition, proofreading, and formatting. Demonstrates proper interviewing skills through mock interviews. Course is offered on a Pass/Fail basis. Prerequisite: CIT 105 Introduction to Computers, Sophomore Standing, and Business Administration Program Students only) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

BAS 256(3) Course ID: 002280
International Business
Identifies the business and managerial processes in a global context. Examines the importance and impact of the economic, cultural, and political environment on business functions. Determines the effect of management functions as they apply across various cultures. Prerequisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

BAS 260(2) Course ID: 004432
Professional Development and Protocol
Prepares students approaching the major career transition from college to work either as a graduating student or as a cooperative education student. Focuses on acceptable business protocol and how to project a professional image. Prerequisite: BAS 250 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

BAS 267(3) Course ID: 000107
Introduction to Business Law
Introduces the state and federal court systems, tort and criminal law, law of contracts, partnership, sale of goods, government regulation, arbitration, negotiation, instruments, methods of research, and the judicial system (discovery, trial, and appellate processes). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 274(3) Course ID: 000108
Human Resource Management
Introduces basic methods of recruiting, selecting, training, compensating, and maintaining a productive workforce. Examines concepts of effective employee relations including collective bargaining, contract administration, and safety and health programs. Emphasizes techniques for systematic human resource planning and development of policies consistent with government regulations. Prerequisite: BAS 160 and BAS 283 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 280(1 - 4) Course ID: 004474
Business Internship
Provides an opportunity for a work experience related to the student’s educational objective and concepts learned in courses required for credential. (One hour of credit, up to a maximum of four credit hours, awarded for every 40 hours of approved work experience, not to exceed 160 hours). Prerequisite: Sophomore Standing or Consent of Instructor. Practicum/Internship: 1.0 - 4.0 credits
Components: Practicum
Attributes: Technical

BAS 282(3) Course ID: 000109
Principles of Marketing
Introduces marketing functions as it applies to various types of business organizations with attention to the marketing concept, including the marketing mix of product, price, promotion, and distribution decisions; international marketing; and social responsibility. Prerequisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 283(3) Course ID: 000110
Principles of Management
Examines the functional framework of planning, organizing, leading, and controlling as it is utilized to introduce the management process. Introduces the interdisciplinary nature of management with the inclusion of relevant aspects of human behavior and rational decision making. Prerequisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 284(3) Course ID: 000112
Applied Management Skills
Applies management theories and techniques with emphasis on the action-skills that managers need for success. Examination of various course topics in this capstone course include: delegating, motivating employees, team building, conflict management, coaching, and managing change. Prerequisite: (BAS 160 and BAS 283) or prior supervisory experience. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 285(3) Course ID: 000113
Problems in Marketing and Management
Demonstrates knowledge of theories and techniques in management and marketing with emphasis on the action-skills that managers need for success. Examines course topics which include: delegating, motivating employees, team building, conflict management, coaching, and managing change. This is a capstone course. Prerequisite: (BAS 282 and BAS 283) or taken concurrently. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 287(3) Course ID: 000114
Supervisory Management
Examines the roles and responsibilities of the supervisor, emphasizing human relations skills while recognizing the behavioral factors of individuals and groups in the work environment. Applies conceptual knowledge base and skills to identify and develop the supervisor’s role and responsibilities. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 288(3) Course ID: 000115
Personal and Organizational Leadership
Recognizes personal leadership skills that are essential for effective team and organizational guidance while examining organizational leadership theories that promote personal and organizational goal setting, ethical management, time management, human relations, effective communication, and fundamentals of synergy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 290(3) Course ID: 005531
Operations Management
Introduces the fundamental concepts, principles, and practices of operations management. Introduces and examines operations management careers, terminology and concepts in both manufacturing and service organizations. Prerequisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 293(3) Course ID: 005579
Management, Ethics and Society
Examines the business leadership-government-society relationship. Includes business leadership, ethics, decision-making, social costs, corporate responsibility, governance, global trends and the role of government in business. Prerequisite: BAS 283 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 293(3) Course ID: 005249
Principles of Finance
Explains fundamentals of financial concepts and valuation, corporate decisions (with emphasis in financial instruments), the banking system, financial planning, money and interest rates, and capital structure and investments. Prerequisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 294(3) Course ID: 005250
Money and Financial Institutions
Presents financial intermediaries and their markets from an economic standpoint. Emphasizes analysis of financial institutions and their relationship with the money market, capital market, Federal Reserve System, monetary policy, fiscal policy, regulatory environment, international financial influences, and contemporary trends. Prerequisite: BAS 212 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 295(3) Course ID: 005251
International Finance
Covers international finance and financial institutions, including foreign exchange, collections, credit, international financing agencies, and international financial markets. Places emphasis on role of the central bank, international and monetary trade theory, and the theory of exchange rate determination. Discusses role of the international Monetary Fund and the World Bank in financial globalization. Prerequisite: BAS 212 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 299(1 - 3) Course ID: 000119
Instructor Consent Required
Selected Topics in Business Management: (Option Topic) Interprets technological developments, new business issues, and/or business topics as they relate to the student’s chosen field. Prerequisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

BAS 1201(0.8) Course ID: 005810
The Financial Planning Process
Introduces the student to basic financial planning concepts. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

BAS 1202(0.7) Course ID: 005811
Managing Your Money
Presents basic concepts related to financial institutions, consumer borrowing, and purchasing decisions. Prerequisite: BAS 1201, or consent of instructor. Lecture: 0.7 credits. (10.5 contact hours).
Components: Lecture
BAS 1203(1) Course ID: 005812
Managing Investments
Presents the fundamentals of personal investments. Prerequisite: BAS 1202, or consent of instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

BAS 1204(0.5) Course ID: 005813
Protecting Your Resources
Presents the basic concepts of asset protection using insurance and estate planning. Prerequisite: BAS 1203, or consent of instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1601(0.6) Course ID: 005145
The Foundations of Business
Examines the essential components of business on a national and global scale. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 1602(0.6) Course ID: 005146
Business Ownership, Money, and Quality
Examines business ownership, monetary systems, and quality principles. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 1603(0.6) Course ID: 005147
Introduction to Management
Identifies management functions and proper management techniques. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 1604(0.6) Course ID: 005148
Introduction to Marketing
Examines marketing functions and effective marketing techniques. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 1605(0.6) Course ID: 005149
Business Decision Making Tools
Identify decision making tools and their specific applications to business. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 1701(0.5) Course ID: 005245
Product Development
Examines essential information regarding the product development process for a small business. Prerequisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1702(0.5) Course ID: 005246
Entrepreneurial Finance
Identifies current and essential strategies for financing small businesses. Prerequisite: BAS 1701 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1703(0.5) Course ID: 005252
Preparing the Business Plan
Examines current and essential strategies for financing small businesses. Prerequisite: BAS 1702 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1704(0.5) Course ID: 005247
Small Business Taxes
Examines federal, state and local tax requirements for a small business. Prerequisite: BAS 1703 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1705(0.5) Course ID: 005248
The Small Business Law Environment
Examines business and consumer laws for the small business. Prerequisite: BAS 1704 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1706(0.5) Course ID: 006221
Current Small Business Managerial Issues
Examines business and consumer laws for the small business. Prerequisite: BAS 1705 or instructor consent. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2000(0.5) Course ID: 005284
Small Business Organization
Examines essential information regarding business and consumer laws for the small business. Prerequisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2002(0.5) Course ID: 005285
Essential Small Business Finance
Identifies essential information to finance a small business. Prerequisite: BAS 2001 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2003(0.5) Course ID: 005286
Essentials of a Small Business Plan
Identifies the essential information to prepare and maintain a small business plan. Prerequisite: BAS 2002 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 2004(0.5) Course ID: 005287
Small Business Accounting and Financial Records
Examines essential information regarding accounting and financial records for a small business. Prerequisite: BAS 2003 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2005(0.5) Course ID: 005294
Small Business Marketing
Examines essential information to market a small business. Prerequisite: BAS 2004 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2006(0.5) Course ID: 005295
Managing Growth in the Small Business
Identifies information essential to managing growth in a small business. Prerequisite: BAS 2005 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2121(1) Course ID: 006106
Financial Statement Analysis
Presents financial ratios and pro forma financial statements. Prerequisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2121(1) Course ID: 006107
Break-Even Analysis
Introduces break-even analysis and the effects of leverage. Prerequisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2200(0.5) Course ID: 005140
Research and Negotiable Instruments
Introduces negotiable instruments, government obligations, and the legal environment. Prerequisite: (BAS 160 and BAS 283) or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2364(0.5) Course ID: 005817
Property Law
Examines the value of human resource management, individual management responsibilities, and the legal environment. Prerequisite: (BAS 160 and BAS 283) or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2411(0.6) Course ID: 005150
The Environment of Human Resource Management
Examines the value of human resource management, individual management responsibilities, and the legal environment. Prerequisite: (BAS 160 and BAS 283) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2424(0.6) Course ID: 005151
Bringing Employees Into the Organization
Examines the operational requirements of the employee intake function, including HR planning, job analysis, employee recruitment, and employee selection. Prerequisite: BAS 241 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2552(1) Course ID: 015765
Global Trade & Foreign Investment
Examines the global trading system, its importance, and the impact of economic, cultural, and political environment on trade and foreign direct investment. Pre-requisite: BAS 2561 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Laboratory

BAS 2563(1) Course ID: 015766
Global Marketing
Examines global marketing and product development strategies and how political, economic, and cultural differences impact them. Pre-requisite: BAS 2562 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2671(0.5) Course ID: 005814
Foundation Principles of Business Law
Examines business and consumer laws for the small business. Prerequisite: BAS 1203, or consent of instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 2672(0.5) Course ID: 005815
Laws and Protection
Identifies information essential to managing growth in a small business. Prerequisite: BAS 2004 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2673(1) Course ID: 005816
Contracts
Introduces laws of contracts. Prerequisite: BAS 2672. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2674(0.5) Course ID: 005817
Property Law
Examines bailment, ownership of personal property, and real property. Prerequisite: BAS 2673. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2675(0.5) Course ID: 005818
Research and Negotiable Instruments
Introduces negotiable instruments, government obligations, and the legal environment. Prerequisite: BAS 2674. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2741(0.6) Course ID: 005150
The Environment of Human Resource Management
Examines the value of human resource management, individual management responsibilities, and the legal environment. Prerequisite: (BAS 160 and BAS 283) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
BAS 2745(0.6) Course ID: 005154

Employee Relations
Recognizes occupational safety and health adherence, collective bargaining issues, and establishing effective working relationships. Prerequisite: BAS 2744 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2821(0.5) Course ID: 005288

Introduction to Entrepreneurial Marketing
Introduces small business marketing. Prerequisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2822(0.5) Course ID: 005289

Environmental Market Strategy Planning
Identifies essential information for an environmental and SWOT analysis in developing marketing objectives for a small business marketing plan. Prerequisite: BAS 2621 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2823(0.5) Course ID: 005290

Product and Market Strategies
Examines essential information to develop product and marketing strategies for the small business marketing plan. Prerequisite: BAS 2822 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2824(0.5) Course ID: 005291

Market Distribution and Promotion
Identifies essential information to develop small business distribution and promotion strategies. Prerequisite: BAS 2823 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2825(0.5) Course ID: 005292

Pricing Strategies
Identifies pricing strategies for developing small businesses. Prerequisite: BAS 2824 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2826(0.5) Course ID: 005293

Market Implementation, Evaluation and Control
Examines information to implement, evaluate and control a small business marketing plan. Prerequisite: BAS 2825 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2831(0.5) Course ID: 005819

Introduction to Management
Provides an overview and introduction to management and the evolution of management thought. Prerequisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2832(0.5) Course ID: 005820

Planning and Decision Making
Examines the planning function as it relates to the relationship to other management functions and creative problem solving and decision making. Prerequisite: BAS 2831 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2833(0.5) Course ID: 005821

The Process of Organizing
Examines organizing as a process as it applies to formal and informal organizations. Prerequisite: BAS 2832 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2834(0.5) Course ID: 005822

Leading and Staffing
Develops the concepts of leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2835(0.5) Course ID: 005823

Controlling
Examines the different aspects of the principles and theories of control as it relates to management information and decision support systems. Prerequisite: BAS 2804 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

BAS 2836(0.5) Course ID: 005824

Special Concerns in Management
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2841(0.6) Course ID: 005825

Effective Decision Making & Delegation
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2842(0.6) Course ID: 005826

Empowerment and Motivation
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2843(0.6) Course ID: 005827

Effective Coaching and Mentoring
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2844(0.6) Course ID: 005828

Communication and Teamwork
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2845(0.6) Course ID: 005829

Effective Meetings and Quality Processes
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2871(0.6) Course ID: 005155

The Role of the Team Leader
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2872(0.6) Course ID: 005156

Organizing and Developing Your Team
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2873(0.6) Course ID: 005157

The Leadership Reins
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2874(0.6) Course ID: 005158

Managing the Team Through Conflict and Change
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2875(0.6) Course ID: 005159

Decision Making and Problem Solving in a Quality Culture
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2881(0.6) Course ID: 005160

Become a Great Leader
Examines leadership philosophies, values, characteristics, and the specific role the leader plays in directing the strategic planning process. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2882(0.6) Course ID: 005161

Self Management: Time, Stress, & Effective Change Techniques
Examines the planning function as it relates to the leadership and managing change. Examines the use of human resources and communication and motivation. Prerequisite: BAS 2833 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2883(0.6) Course ID: 005162

Effective Delegation and Empowerment
Examines leadership philosophies, values, characteristics, and the specific role the leader plays in directing the strategic planning process. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2884(0.6) Course ID: 005163

Communicating for Interdependence
Examines leadership philosophies, values, characteristics, and the specific role the leader plays in directing the strategic planning process. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2885(0.6) Course ID: 005164

Teamwork and Synergy
Examines leadership philosophies, values, characteristics, and the specific role the leader plays in directing the strategic planning process. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2891(0.75) Course ID: 015767

Operations & Productivity
Examines leadership philosophies, values, characteristics, and the specific role the leader plays in directing the strategic planning process. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2892(0.75) Course ID: 015768

Product Design & Quality
Examines leadership philosophies, values, characteristics, and the specific role the leader plays in directing the strategic planning process. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2893(0.75) Course ID: 015769

Planning and Scheduling
Examines leadership philosophies, values, characteristics, and the specific role the leader plays in directing the strategic planning process. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2894(0.75) Course ID: 015770

Lean Operations & Supply Chain
Examines leadership philosophies, values, characteristics, and the specific role the leader plays in directing the strategic planning process. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2901(1) Course ID: 006103

Moral Philosophy and Business
Examines leadership philosophies, values, characteristics, and the specific role the leader plays in directing the strategic planning process. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BIO 113(1) Course ID: 000133
Introduction to Biology Lab
Emphasizes basic laboratory studies of structure, function and interactions of living organisms including cell theory, genetics, energetics, evolution, and ecology. Prerequisite/ Corequisite: BIO 112. Laboratory: 1 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory, Course Also Offered in Modules

BIO 114(3) Course ID: 000167
Biology I
Examines basic biological concepts such as cell structure and function, metabolism, the chemical basis of biology, protein synthesis, genetics, and evolution with emphasis placed on the cellular level. Corequisite: BIO 115. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SL - Science

BIO 115(1) Course ID: 000165
Biology Laboratory I
A two-hour laboratory to be offered concurrently with BIO 114. Designed to acquaint the student with the use of analytical techniques in biology, theory, and methods involved in experimentation, in order to facilitate a greater understanding of concepts presented in lecture and the way in which information is gathered in science. Laboratory: 1 credit (30 contact hours). Corequisite: BIO 114.
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 116(3) Course ID: 000168
Biology Laboratory II
A two-hour laboratory to be offered concurrently with BIO 116. Designed to acquaint the student with the use of analytical techniques in biology, theory, and methods involved in experimentation in order to facilitate a greater understanding of concepts presented in lecture and the way in which information is gathered in science. Laboratory: 1 credit (30 contact hours). Corequisite: BIO 116.
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 117(1) Course ID: 000166
Biology Laboratory III
Examines basic biological concepts such as ecology, biological diversity (to include the kingdoms of life), reproduction, growth, and development, with emphasis placed on multicellular systems. Corequisite: BIO 117. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 118(3) Course ID: 004988
Microbes and Society
An introduction to the science of microbiology addressing the role of microorganisms in nature and in human welfare. Contemporary topics will include infectious diseases, genetic engineering, the environment and biological warfare. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 120(3) Course ID: 000126
Human Ecology
Interrelationships among humans, other organisms and the environment including principles of energy and matter, resource use, biogeochemical cycling, trophic structures, sustainability and environmental impacts by humans. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 121(1) Course ID: 005191
Introduction to Ecology Laboratory
Basic laboratory studies of interactions among living organisms and their environment including biogeochemical cycling, trophic structures, sustainability and human impacts on the environment. Prerequisite/Corequisite: BIO 120 or BIO 124. Laboratory: 1 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 122(3) Course ID: 000175
Introduction to Conservation Biology
Historical and current perspectives on species extinction and global loss of biodiversity is presented. Methods used to conserve plant and animal life in the United States and around the world are surveyed, and conservation activities and needs are discussed in societal, cultural, economic, and political contexts. Prerequisite: High school biology recommended. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 124(3) Course ID: 000177
Principles of Ecology
Study of the principles and interrelationships between organisms and their environment with emphasis on the analytical and statistical methods of ecology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 130(3) Course ID: 000170
Aspects of Human Biology
Aspects of human biology will be introduced from the molecular level to the integrated whole. Attention will be given to the biological bases of various health and wellness issues. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Other

BIO 135(4) Course ID: 000169
Basic Anatomy and Physiology with Laboratory
 Presents the fundamental structure of the human body and the physiological mechanisms involved in normal functioning are presented through lecture and student participation in laboratory activities. Prerequisite: (Reading and English assessment exam scores above the KCTCS developmental level and a mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 137(4) Course ID: 000172
Human Anatomy and Physiology I
The interrelationship of structure and function of each body system will be presented in two semesters. The first semester will include basic chemistry, cell structure, cell physiology, metabolism, tissues, and integumentary, skeletal, muscular, and nervous systems. Prerequisite: Reading and English assessment exam scores above the KCTCS developmental level and a mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Lecture: 3.0 credits (45 contact hours); Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

BIO 139(4) Course ID: 000174
Human Anatomy and Physiology II
The second semester continues the study of the interrelationships of organ systems, including the endocrine, reproductive, cardiovascular, lymphatic, digestive, respiratory, and urinary systems. Prerequisite: BIO 137. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules
BIO 140(3) Course ID: 000130
Botany
The anatomy, physiology, and biodiversity of plants emphasizing life processes, the cell, development, heredity, plant systems, evolution, taxonomy, phylogeny and ecology. Prerequisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science
BIO 141(4) Course ID: 000178
Botany with Laboratory
The anatomy, physiology, and biodiversity of plants emphasizing life processes, the cell, development, heredity, plant systems, evolution, taxonomy, phylogeny and ecology. Includes laboratory studies of the morphology, physiology, and reproduction of plants with emphasis on flowering plants. Prerequisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science
BIO 142(3) Course ID: 000128
Zoology
The anatomy, physiology, and biodiversity of animals emphasizing life processes, the cell, development, heredity, body systems, evolution, taxonomy, phylogeny and ecology. Prerequisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science
BIO 143(4) Course ID: 000180
Zoology with Laboratory
The anatomy, physiology, and biodiversity of animals emphasizing life processes, the cell, development, heredity, body systems, evolution, taxonomy, phylogeny and ecology. Prerequisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science
BIO 144(3) Course ID: 002215
Insect Biology
Presents an overview of the biology of both beneficial and detrimental insects including physiology, behavior, ecology, and evolution. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science
BIO 150(3) Course ID: 000135
Principles of Biology I
Presents knowledge of biological principles at the cellular and molecular levels, similarities and differences in structure and function of simple and complex cells and theories of the origin and evolution of biological systems. Part one of a two semester sequence (BIO 150 and BIO 152). Lecture: 3 credits (45 contact hours). Prerequisite: CHE 170 or concurrent enrollment or consent of instructor.
Components: Lecture
Attributes: SN - Science
BIO 151(2) Course ID: 000136
Principles of Biology Laboratory I
Includes studies of cellular and molecular biology. Laboratory: 2 credits (60 contact hours). Prerequisite: BIO 150 or Concurrent enrollment.
Components: Laboratory
Attributes: SL - Science Laboratory
BIO 152(3) Course ID: 000137
Principles of Biology II
Presents knowledge of organismal, population and community biology. Part two of a two semester sequence (BIO 150 and BIO 152). Lecture: 3 credits (45 contact hours). Prerequisite: BIO 150 or consent of instructor.
Components: Lecture
Attributes: SN - Science
BIO 153(2) Course ID: 000138
Principles of Biology Laboratory II
Includes organismal, population and community biology. Laboratory: 2 credits (60 contact hours). Prerequisite: BIO 152 or concurrent.
Components: Laboratory
Attributes: SL - Science Laboratory
BIO 155(3) Course ID: 006342
Astrobiology
Examines topics related to the origins of planets, the requirements for life, the search for life away from Earth, the societal implications of discovering other forms of life, and the future of life on Earth and in space from a multidisciplinary perspective. Credit not available for both BIO 155 and AST 155. Prerequisite: MT065 and ENC091 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: AST 155
Attributes: SN - Science
BIO 155(1) Course ID: 016428
Introductory Biology Laboratory
This course is designed to provide a broad introduction into the data, results, and information associated with biological research, and into some of the analytical approaches used to test biological hypotheses. Communication of these aspects of biological research is crucial, and much of this lab course will be focused on the development of effective writing skills for the delivery of this information. Pre-requisite: Math ACT of 23 or above or MA 109, past or current enrollment in CHE 105 (KCTCS equivalents: MA 109=MAT 150; CHE 105=CHE 170). Laboratory: 1 credit hour (2 contact hours).
Components: Laboratory
Attributes: University Course (University of Kentucky)
BIO 209(2) Course ID: 000142
Introductory Microbiology Laboratory
Laboratory exercises in general microbiology. Laboratory: 4 hours. Prerequisite: One unit of chemistry or consent of instructor. BIO 209/226 should be taken concurrently.
Components: Laboratory
Attributes: SL - Science Laboratory
BIO 210(4) Course ID: 006807
Biological Inquiry and Analysis
An inquiry-based introduction to concepts in biology. Research-oriented activities will emphasize the skills and attitudes necessary for understanding and conducting scientific inquiry. Lecture: 3.0 credits (45 contact hours); Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: University Course (Murray State University)
BIO 220(3) Course ID: 000139
The Genetic Perspective
Covers introductory genetics for non-science majors examining how heredity affects humans and the remainder of the living world and providing some insights into other fields of science from the geneticists’ perspective. Prerequisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science
BIO 225(4) Course ID: 000182
Medical Microbiology
The characteristics of microorganisms and their relation to health and disease are studied. Prerequisite: BIO 137 and BIO 139 or equivalent. Lecture: 2 credits (30 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules
BIO 226(3) Course ID: 000140
Principles of Microbiology
Introduction to fundamental microbiological principles and techniques emphasizing structural functional, ecological, and evolutionary relationships among microorganisms. Prerequisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science
BIO 227(5) Course ID: 004989
Principles of Microbiology with Laboratory
Introduction to fundamental microbiological principles and techniques emphasizing structural, functional, ecological, and evolutionary relationships among microorganisms. Includes laboratory exercises in general microbiology. Prerequisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 2 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science
BIO 295(1-3) Course ID: 000195
Instructor Consent Required
Independent Investigation in Biology
Investigates specific topics or problems in the field of the biological sciences. May be repeated for a maximum of six credits. Laboratory varies with credit. Prerequisite: Permission of Instructor. Laboratory: Varies with credit.
Components: Independent Study, Lecture
BIO 299(1-3) Course ID: 000197
Instructor Consent Required
Selected Topics in Biology (Topic)
Addresses recent trends and discoveries in selected areas of biology in a seminar format. Emphasizes discussion and critical thinking. May be repeated with different subtitle for a maximum of six credits. Prerequisite: Permission of Instructor. Lecture: Varies with credit.
Components: Lecture
Attributes: Other
BIO 112(0.75) Course ID: 006122
Science, Biochemistry, and Hierarchy of Life
Covers basic studies of the Scientific method, the molecules of life and the hierarchy of life. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
BIO 112(0.75) Course ID: 006123
Cell Structure, Function, Energies, and Cell Division
Covers basic studies of cell structure, function, energetics, and cell division. Prerequisite: BIO 1121. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
BIO 112(0.75) Course ID: 006124
Classification System, Genetics, and Evolution
Covers basic studies of the classification system, genetics, and evolution. Prerequisite: BIO 1122. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
BIO 112(0.75) Course ID: 006125
Ecology and Population Dynamics
Covers basic studies of ecology and population dynamics. Prerequisite: BIO 1123. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
BIO 1203(1) Course ID: 016647
Pollution Impacts
Parent description: Interrelationships among humans, other organisms and the environment including principles of energy and matter, resource use, biogeochemical cycling, trophic structures, sustainability and environmental impacts by humans. This module emphasizes human impacts on ecosystems. Agriculture, toxic risks, pollution, and waste management are covered. Pre-requisite: BIO 1202. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
BIO 1251(1) Course ID: 016826
Cells, Skin & Bones
Presents the fundamental structure of the human body including Cell and Cellular Physiology, the Integumentary System, and the Skeletal System. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: Reading and English assessment exam scores above the KCTCS developmental level and a mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Laboratory: 0.75 credits (11.25 contact hours), Clinical: 0.25 credits (7.5 contact hours).
Components: Clinical, Laboratory
BIO 1352(1) Course ID: 016827
Muscle, Regulators & Generation
Presents the fundamental structure of the human body including the Muscular System, Nervous system, Endocrine System, and Reproductive System. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1351 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours). Laboratory: 0.25 credits (7.5 contact hours)
Components: Laboratory, Lecture

BIO 1353(1) Course ID: 016828
Lymph, Blood & Gases Lymph, Blood & Gases
Presents the fundamental structure of the human body including the Lymphatic System, Cardiovascular System, and Respiratory System. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1352 or Consent of Instructor
Components: Laboratory, Lecture

BIO 1354(1) Course ID: 016829
Digestive, Renal & Electrolytes
Presents the fundamental structure of the human body including the Digestive System, the Urinary System, and Water and Electrolyte Balance. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1353 or Consent of Instructor. Lecture: 0.75 credits (11.75 contact hours). Laboratory: 0.25 credits (7.75 contact hours)
Components: Laboratory, Lecture

BIO 1371(1) Course ID: 006651
Chemistry and Cells
Provides an introduction to cell chemistry, cell structure and function, and the homeostatic relationship among all body systems. There is also an overview of all systems of the body, body regions, directions, and cavities. Pre-requisite: Reading, English, and Math assessment exam scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s) or consent of instructor. Lecture/Lab:1.0 credit (18.75 contact hours)
Components: Lecture

BIO 1372(1) Course ID: 006652
Tissue, Skin & Skeleton
Provides an introduction to the structure and function of major tissue types and anatomy and physiology of the integumentary and skeletal systems as well as common dysfunctions of these. Pre-requisite: BIO 1371. Lecture/Lab: 1.0 credit (18.75 contact hours)
Components: Lecture

BIO 1373(1) Course ID: 006653
Muscles and Metabolism
The interrelationship and structure and function of the muscular system and how it is involved in maintaining homeostasis and how it relates to biochemistry and metabolism. There is also a focus on muscular anatomy and movements. Pre-requisite: BIO 1371 and BIO 1372. Lecture/Lab: 1.0 credit (18.75 contact hours)
Components: Lecture

BIO 1374(1) Course ID: 006654
Nervous System
Provides an introduction to the anatomy and physiology of the nervous system as well as common dysfunctions of this system. Pre-requisite: BIO 1371, BIO 1372, and BIO 1373. Lecture/Lab: 1.0 credit (18.75 contact hours)
Components: Lecture

BIO 1391(1) Course ID: 006655
Endocrine and Reproduction
Provides an introduction to the anatomy and physiology of the endocrine and reproductive systems as. Pre-requisite: BIO 137. Lecture/Lab: 1.0 credit (18.75 contact hours)
Components: Lecture

BIO 1392(1) Course ID: 006656
Digestive and Lymphatic System
Provides an introduction to the anatomy and physiology of the digestive and lymphatic systems as well as common dysfunctions of these systems. Pre-requisite: BIO 1391. Lecture/Lab: 1.0 credit (16.75 contact hours)
Components: Lecture

BIO 1393(1) Course ID: 006657
Cardiovascular System
Provides an introduction to the anatomy and physiology of the cardiovascular system as well as common dysfunctions of this system. Pre-requisite: BIO 1391 and BIO 1392. Lecture/Lab: 1.0 credit (18.75 contact hours)
Components: Lecture

BIO 1394(1) Course ID: 006658
Respiratory and Urinary
Provides an introduction to the anatomy and physiology of the respiratory and urinary systems as well as common dysfunctions of these systems. Also provides an overview of the physiological processes of water and electrolyte balance and mechanisms of homeostasis within these systems. Pre-requisite: BIO 1391, BIO 1392, BIO 1393. Lecture/Lab: 1.0 credit (18.75 contact hours)
Components: Lecture

BIOL Biological Sciences

BIOL 110(3) Course ID: 006760
Inquiry Biology for Teachers
Introduces the study of living things, cell structure and function, photosynthesis, respiration, reproduction, growth, heredity, evolution, and ecology. It is NOT ACCEPTABLE for biology majors, minors, or areas. This course satisfies the area studies-natural and mathematical sciences for general education only for education majors. Lecture: 3.0 credits (60 contact hours)
Components: Lecture
Attributes: University Course (Morehead State University)

BMO Business and Office Technology

BMO 170(3) Course ID: 001125
Introduction to Business Management
This course introduces the concepts and principles of effective business management and includes forms of business ownership, typical business organizational structures, relationship of business to the community, and the effect of government regulations on businesses.
Components: Lecture
Attributes: Technical

BMO 270(3) Course ID: 001130
Business Management
This course further develops concepts and principles needed for managing a business or department within a business. Problem-solving activities and case studies are used in researching the position of the manager in the typical business. Product and service promotion in business; the effects government regulations have on a business; and educational requirements of a professional management career are topics covered in the course.
Components: Lecture
Attributes: Technical

BMT Biomedical Equipment Technology

BMT 100(1) Course ID: 001131
Hazardous Risks Encountered by BMETs and Methods of Prevention
Emphasizes origin of hazardous occurrences within a healthcare setting encountered by Biomedical Equipment Technicians and the appropriate methods used to eliminate, reduce or avoid such occurrences. Addresses safety concerns associated with fire, medical gases, radiation, body fluids, microorganisms, devices, and people. Prerequisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Prerequisite or corequisite: AIT 100 or consent of instructor. Lecture: 1 credit (16 contact hours)
Components: Lecture
Attributes: Technical

BMT 110(2) Course ID: 001133
BMET Career Perspectives and Field Practices
Provides information on employment and career advancement opportunities as well as practices in support of a hospital-wide safety program. Prerequisite: BMT 100. Lecture/Lab: 2 credits (37.5 contact hours), (30:1 Ratio Lab).
Components: Lecture
Attributes: Technical

BMT 120(4) Course ID: 001135
Essentials of Analog and Digital Electronics for BMETs: Level 1
Emphasizes basic analog and digital devices and associated circuits as well as their use within medical equipment. Prerequisite or corequisite: AIT 110. Lecture/ Lab: 4 credits (75 contact hours). (30:1 Ratio Lab).
Components: Lecture
Attributes: Technical

BMT 130(4) Course ID: 005953
Essentials of Analog and Digital Electronics for BMETs: Level 2
Emphasizes advanced analog and digital devices and associated circuits as well as their use within medical equipment. Prerequisite: BMT 120. Lecture/Lab: 4 credits (75 contact hours) (30:1 Ratio Lab)
Components: Lecture
Attributes: Technical

BMT 140(4) Course ID: 005954
Biomedical Instrumentation and Biophysical Measurements
Emphasizes biophysical signals and measurements obtained from the human body, their clinical significance, factors which may affect their appearance or numerical value, and the technology used to detect, process, display and record such information. Prerequisite: BMT 130 and BIO 135 Prerequisite or corequisite: PH 171. Lecture/Lab: 4 credits (90 contact hours), (30:1 Ratio Lab).
Components: Lecture
Attributes: Technical

BMT 210(1) Course ID: 001138
Fundamental Engineering Design Principles Encountered in Medical Technology
Emphasizes a variety of engineering and scientific principles and their applications in the design and operation of medical equipment including pressure, fluid mechanics, thermodynamics, optics, and sound. Prerequisite: PH 171 and (MT 125 or higher). Lecture/Lab: 1 credit (15 contact hours) (30:1 Ratio Lab).
Components: Lecture
Attributes: Technical

BMT 215(4) Course ID: 005966
Principles and Practices of Medical Equipment Maintenance and Management
Investigates key aspects of a Medical Technology Management Program. Emphasizes medical device service principles and practices including inspecting, testing, maintenance, calibration, and repairs. Prerequisite: BMT 110. Corequisite: BMT 230. Lecture/Lab: 4 credits (75 contact hours) (30:1 Ratio Lab).
Components: Lecture

BMT 230(3) Course ID: 001140
Understanding, Maintaining, and Servicing Medical Equipment
Explores the purpose and functionality of various types of medical technology as well as their performance testing, maintenance, and management requirements. Prerequisite: BMT 130. Prerequisite or corequisite: BMT 140 and BMT 215. Lecture/Lab: 3 credits (60 contact hours). (30:1 Ratio Lab).
Components: Lecture
Attributes: Technical
Understanding, Maintaining, and Servicing
Specialized Medical Equipment
Explores the purpose and functionality of various types of specialized medical technology as well as their performance, testing, maintenance, and management requirements. Emphasizes mechanical ventilators, anesthesiology machines, hemodialysis machines, video endoscopy systems, and other imaging modalities such as digital radiography, fluoroscopy, and diagnostic ultrasound. Prerequisite: BMT 130 or consent of instructor. BMT 210 and BMT 215. Prerequisite or corequisite: BMT 110. Lecture/Lab: 3 credits (60 contact hours), (30:1 Ratio Lab)
Components: Lecture
Attributes: Technical

BRX 110(2) Course ID: 001146
Basic Blueprint Reading for Machinist
Basic applied math, lines, multi-view drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings are presented. Safety will be emphasized as an integral part of the course. Lecture: 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Technical

BRX 210(2) Course ID: 001151
Mechanical Blueprint Reading
Provides the student with an advanced series of lectures, demonstrations, and practice exercises in the study of prints involving the use of both decimal and metric, combination of lines, multi-view drawings, assembly drawings, fasteners, machining and construction processes, datum coordinates, numerical control prints, sheet metal prints, welding, casting and forging prints. Safety will be emphasized. Lecture: 2 credits (30 contact hours). Prerequisite: BRX 110 with a grade of “C” or greater or Consent of Instructor.
Components: Lecture
Attributes: Technical

BRX 120(3) Course ID: 001148
Basic Blueprint Reading
Includes basic applied math, lines, multi-view drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings. Emphasizes safety as an integral part of the course. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: ELT 102
Attributes: Course Also Offered in Modules, Technical

BRX 220(3) Course ID: 001150
Blueprint Reading for Construction
Provides a series of lectures, demonstrations, and practice exercises in the study of prints involving the use of decimal and metric, combination of lines, multi-view drawings, assembly drawings, fasteners, drafting, construction processes, datum coordinates, numerical control prints, sheet metal prints, welding, casting and forging prints. Safety will be emphasized. Lecture: 2 credits (30 contact hours). Prerequisite: BRX 210 with a grade of “C” or better, or permission of program coordinator. Lecture: 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Technical

BRX 1202(1) Course ID: 005632
Drawing Views and Setup
Presents sketching, auxiliary and sectional views. Prerequisite: (BRX 1201 with a grade of “C” or better) or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

BRX 2001(1) Course ID: 016150
Basic Construction Prints
Provides a series of lectures, demonstrations, and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings and construction dimensioning systems and measurements. Lecture: 1.0 credits. (15 contact hours).
Components: Lecture

BRX 2002(2) Course ID: 016151
Construction Blueprints
Provides a series of lectures and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings, building materials and specifications lists, and charts/schedules. Prerequisite: BRX 2201 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).

BSE Building Science Engineering
BSE 150(5) Course ID: 006867
Energy Auditor Preparation
Provides a scientific foundation upon which inspectors and auditors can build an accurate understanding of modern structures including an overview of technology, examples of typical installations and their defects, procedures for performing audits, and guidelines for analyzing potential retrofits. Presents a balanced approach to building performance to address energy efficiency, building durability, and human health. Lecture/Lab: 5.0 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

BTN Biotechnology Laboratory Technician
BTN 100(4) Course ID: 007277
Contextual Science with Laboratory
Introduces students to laboratory focused concepts and skills necessary for entry-level positions in a biotechnology laboratory. Exposes students to selected laboratory exercises that parallel the concepts introduced in BTN 103 and BTN 104. Co-requisite: BTN 103. BTN 104. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

BTN 101(1) Course ID: 004277
Introduction to Biotechnology
Introduces current and future applications of biotechnology. Covers biotechnology career opportunities and bioethics. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

BTN 102(4) Course ID: 007077
Introduction to Biotechnical Engineering
Project Lead The Way® course in Biotechnical Engineering. Exposes students to the diverse fields of biotechnology including biomedical engineering, molecular genetics, bioprocess engineering, as well as agricultural and environmental engineering. Engages students in engineering design problems related to biomechanics, cardiovascular engineering, genetic engineering, agricultural biotechnology, tissue engineering, biomedical devices, human interface, bioprocesses, forensics, and bio-ethics. Pre-requisite or Co-requisite: Successful completion of, or concurrent enrollment in, high school biology or chemistry course or equivalent; or consent of instructor. Lecture/Lab: 4.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 103(3) Course ID: 007278
Contextual Laboratory Language
Introduces students to basic scientific language and concepts of biotechnology. Academic study skills needed for success in bioscience courses will be emphasized. Covered topics parallel the concepts introduced in BTN 100 and BTN 104. Co-requisite: BTN 100 and BTN 104. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BTN 104(3) Course ID: 007279
Contextual Laboratory Math
Introduces concepts of basic laboratory calculations emphasizing practical applications in biotechnology laboratories. Covered topics parallel the concepts introduced in BTN 100 and BTN 103. Co-requisite: BTN 100 and BTN 103. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BTN 105(3) Course ID: 007346
Applied Laboratory Calculations for Biotechnology
Introduces concepts, techniques, and applications of common basic laboratory calculations that are routinely used in the biotechnology laboratory. Emphasizes application of basic computational concepts required of biotechnicians. Requires students to apply strategies to calculate amounts of chemicals required to make solutions, calibrate instruments, collect data, and interpret data. Introduces some computer applications. Pre-requisite: MAT 065 or equivalent as determined by KCTCS examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BTN 110(4) Course ID: 004984
Nucleic Acid Methods
Covers theory of DNA structure and function. Emphasizes laboratory skills in a variety of DNA manipulations. Prerequisite: One semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 115(4) Course ID: 007347
Biomanufacturing
Surveys basic biomanufacturing principles and procedures designed to assure the quality and safety of a product as the manufacturing team moves the product down the biotechnology production pipeline. Introduces upstream and downstream manufacturing processes through a combination of lecture and laboratory activities. Emphasizes the role of government oversight and regulation during discovery, development, and manufacturing of bioproducts as outlined in the Good Laboratory and Good Manufacturing Practices (GLP and GMP) of the Food and Drug Administration (FDA). Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of “C” or better, or permission of program coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
BTN 120(4) Biofuels
Introduces students to combustion fuels made from nonpetroleum sources, and includes topics on feedstocks, processing, utilization, and social impacts. Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of “C” or better, or permission of program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 125(2) Biometrics I
Introduces the concepts and tools used in the application of information technology to the field of biology. Includes methods for data collection, storing and accessing biological data, fundamentals of sequence alignment, biological molecule structure prediction, and data mining and analysis. Pre-requisite or Co-requisite: Completion of, or concurrent enrollment in BTN 201 and BTN 202. Lab: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical

BTN 126(2) Biometrics II
Applies concepts introduced in BTN 125 in the design and implementation of basic programming relating to biometrics problems. Emphasizes current trends in bioinformatics programming language, databases, and technology. Pre-requisite: Completion of BTN 125 with a grade of “C” or better or permission of program coordinator. Lab: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical

BTN 160(4) Introduction to Agricultural Biotechnology
Introduces theory and methods relating to applications of biotechnology in agriculture. Emphasizes emerging laboratory technologies in the area of agricultural biotechnology including food and natural resource management. Explores plant and animal genetic engineering. Pre-requisite: BTN 201 and BTN 202 with a grade of “C” or better, or permission of the program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 201(4) Biotechnology Techniques I
Introduces theory and techniques for media and solution preparations, use of analytical equipment, and laboratory safety. Includes various nucleic acid techniques, gene expression and purification, and bioinformatics. Pre-requisite: A semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 202(4) Biotechnology Techniques II
Covers various protein techniques, extraction and purification, and assays. Pre-requisite: BTN 201. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 210(4) Cell Culture and Function
Covers use of cell culture in modern biotechnological applications, an emphasis on laboratory skills in a variety of cell culture techniques. Prerequisite: BTN 201 with a grade of “C” or better or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 220(4) Immunological Methods
Covers immunological theory and applications with focus on techniques such as isolation, purification, and labeling of antibody molecules. Prerequisite: BTN 110 with a grade of “C” or better or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 225(4) Protein Bioseparation Methods
Introduces the strategies to purify proteins as part of a biotechnology process. Introduces specific methods such as activity assays for enzymes, extraction of proteins from bacterial cells, salting out, dialysis, ion exchange chromatography, and polyacrylamide gel electrophoresis. Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of “C” or better, or permission of the program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 295(1 - 3) Independent Investigation in Biotechnology
Investigates specific topics or problems in the field of the biotechnology under direction of the faculty. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of instructor. Lab: 1.0 - 3.0 credits (30-90 contact hours).
Components: Laboratory Attributes: Technical

BTN 298(1 - 8) Biotechnology Learning Laboratory
Provides contextual, real-world experience and an opportunity to reinforce previously learned concepts, skills, and critical thinking ability related to business and technical job functions typical of biotechnology companies. Prepares students to conduct mentored activities on various workforce projects assigned by Biotechnology faculty/staff or in collaboration with biotechnology companies at the Learning Laboratory. Emphasizes twenty-first century skills and workforce readiness. May be repeated for a maximum of 8 credits. Pre-requisite or Co-requisite: Completion of BTN 201 and BTN 202 with a C or better, or permission of program coordinator. Practicium: 1.0 - 8.0 credits (60-480 contact hours).
Components: Practicum Attributes: Technical

BTN 299(1 - 8) Selected Topics in Biotechnology
Addresses recent trends and discoveries in selected areas of biotechnology in a seminar format. Emphasizes discussion and critical thinking. May be repeated for a maximum of 12 credits if topics and/or learning outcomes vary. Pre-requisite: Permission of instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).
Components: Lecture Attributes: Technical

BTS Biomedical Technology Systems

BTS 100(1) Biomedical Technology Systems: A Career Perspective
Offers insight into the profession for which services are provided to Biomedical Technology Systems with regards to career opportunities, job expectations, and professional growth. Pre-requisite: RDG 30 or equivalent based on KCTCS placement exam. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

BTS 110(1) Environmental Risks and Precautionary Measures for the BTS Service Professional
Presents potential risks or which those involved with Biomedical Technology Systems will encounter and precautionary measures taken to assure that no harm is done. Focuses on safety awareness and management throughout the entire healthcare setting including identifying risks associated with the use and maintenance of medical technologies. Pre-requisite: RDG 30 or equivalent based on KCTCS placement exam. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

BTS 120(2) Essentials of Biomedical Electronics I
Presents basic analog and digital semiconductor devices and their applications within medical products. Addresses how to read electronic schematics and apply basic troubleshooting skills to circuits that utilize both discrete components and integrated circuits. Focuses on such devices as diodes, transistors, thyristors, logic gates and flip-flops, and digital timing devices. Pre-requisite: AIT 1101with a grade of “C” or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 125(2) Essentials of Biomedical Electronics II
Continues the presentation of analog and digital semiconductor devices by introducing more complex devices and their applications within medical products than those introduced in BTS 120. Addresses how to read electronic schematics and apply basic troubleshooting skills to circuits that utilize integrated-packaged devices and the systems that comprise them. Focuses on such devices as operational amplifiers, combinational and sequential logic devices, microprocessors, microcontrollers, and programmable logic devices. Emphasis is also given to communication circuits used in medical products. Pre-requisite: BTS 120 with a grade of “C” or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 130(2) Medical Equipment Management I
Presents medical technology management, principles and practices with regard to medical equipment assessment, planning, acquisition, acceptance, and replacement and disposal. Pre-requisite: BTS 100, BTS 110 and AIT 1101 (each with a grade of “C” or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 140(1) Science Principles Employed in Medical Technologies
Presents physical and chemical science principles that are incorporated into medical devices and systems for the purpose of providing greater understanding into the design and operation of such technologies. Focuses on medical technologies that utilize principles involving light, sound, fluid dynamics, heat transfer, and electrochemistry. Pre-requisite: PHY 171. Pre-requisite or Co-requisite: BTS 125. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

BTS 200(2) Patient Care Support and Management Systems
Presents systems employed throughout healthcare in support of patient care and patient management efforts with regard to their application, operation, and routine evaluation. Emphasizes systems that influence patient care in an indirect manner rather than directly providing patient care. Focuses on variety of systems including utility power systems, water and medical gas systems, nurse call systems, patient beds, sterilizers, infant abduction systems, and telemedicine. Pre-requisite: BTS 125 with a grade of “C” or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical
BTS 210(2) Course ID: 007231
Diagnostic Medical Equipment and Non-Radiographic Imaging Modalities
Presents medical equipment and instrumentation used to assess biophysical signals and images for diagnostic purposes. Examines such technology in terms of principles of operation and measuring its performance. Focuses on a variety of diagnostic technologies including the electrocardiograph and electroencephalograph machines, the pulmonary function analyzer, video endoscopy systems, ultrason-generating machines, and magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, BTS 125, and BTS 140 (each with a grade of "C" or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 220(2) Course ID: 007232
Laboratory Devices, Instruments, and Analyzers
Presents instruments employed in the clinical laboratory setting with regard to purpose, design, maintenance, and management. Focuses on technologies such as centrifuges, microscopes, hematology analyzers, blood gas analyzers, electrolyte analyzers, clinical chemistry analyzers, and tissue processors. Pre-requisite: BIO 135 with a grade of "C" or better BTS 110 with a grade of "C" or better BTS 125 with a grade of "C" or better BTS 140 with a grade of "C" or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 230(2) Course ID: 007233
Medical Equipment Management II
Presents medical technology management principles and practices with regard to ongoing training of staff, ongoing medical equipment maintenance, ongoing safety management, and ongoing quality assurance necessary to assure that equipment is safe and adequately maintained. Focuses on record keeping and compliance with codes, standards, and regulations. Pre-requisite: BTS 130 with a grade of "C" or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 250(2) Course ID: 007234
Introduction to Medical-Based IT Networks and Standards
Presents IT networks employed throughout the healthcare setting that are interconnected to patient care equipment and records management systems. Includes communication standards and risk management standards used by such networks. Pre-requisite: CIT 160. Pre-requisite or Co-requisite: CIT 180. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

BTS 260(2) Course ID: 007235
Radiographic Imaging Modalities
Presents radiographic imaging systems routinely employed in health care settings with regard to the technology, theory of operations, and quality assurance testing. Emphasizes a variety of technologies including both analog and digital radiographs and fluoroscopic machines, mammography units, computed axial tomography (CAT) scanners, and bone densitometers. Pre-requisite: BIO 135, BTS 110, BTS 125, BTS 140 and BTS 230 (each with a grade of "C" or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 270(2) Course ID: 007236
Therapeutic Equipment Modalities I
Presents therapeutic medical equipment typically utilized within the perioperative and intensive care settings. Focuses on clinical applications, circuit design and circuit operation, operator controls and equipment setup, managing device alarms, addressing maintenance requirements, and meeting performance and safety standards. Emphasizes a variety of medical technologies including IV pumps, electrosurgical units, defibrillators, mechanical ventilators, anesthesia machines, infant incubators, and surgical lasers. Pre-requisite: BIO 135, BTS 125, and BTS 140 (each with a grade of "C" or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 275(3) Course ID: 007237
Therapeutic Equipment Modalities II
Presents therapeutic medical equipment typically utilized outside the perioperative and intensive care settings primarily towards physical therapy and treatment interventions. Focuses on clinical applications, circuit design and circuit operation, operator controls and equipment setup, managing device alarms, addressing maintenance requirements, and meeting performance and safety standards. Emphasizes a variety of medical technologies including therapeutic ultrasound units, electrical stimulation units, dialysis machines, oxygen concentrators, and hyperbaric chambers. Pre-requisite: BTS 270 and BTS 230 (each with a grade of "C" or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 280(2) Course ID: 007238
General Care Monitoring and Instrumentation
Presents various physiological parameters measured in low and mid-acuity situations typically encountered in general care settings along with the instrumentation used to obtain such information. Focuses on how the technology works and how to evaluate its performance and safety. Emphasis is given to a variety of medical technologies including scales, thermometers, general electrocardiograph monitors, non-invasive blood pressure monitors, pulse oximeters, and spirometers. Pre-requisite: BIO 135, BTS 125, and BTS 140 (each with a grade of "C" or better). Pre-requisite Or Co-requisite: BTS 230. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 285(2) Course ID: 007239
Critical Care Monitoring and Instrumentation
Continues the presentation of various physiological parameters measured in mid and high acuity situations typically encountered in intensive/critical care settings along with the instrumentation used to obtain such information. Focuses on how the technology works and how to evaluate its performance and safety. Emphasizes a variety of medical technologies including advanced electrocardiograph monitors, invasive pressure monitors, cardiac output monitors, anesthetic gas monitors, and fetal monitors. Pre-requisite: BTS 280 and BTS 230 (both with a grade of "C" or better). Pre-requisite Or Co-requisite: BTS 230. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

CAD 100(3) Course ID: 000216
Introduction to Computer Aided Design
Applies fundamental principles and capabilities of CAD, basic drafting conventions, and operations. Provides an in-depth study of computer aided drafting commands, terminology, command utilization, and skill development. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

CAD 102(4) Course ID: 004052
Drafting Fundamentals
Explores the fundamentals of drafting in the use of equipment through measurement of lines, angles, arcs, and irregular curves; alphabet of lines; freehand sketching; geometric constructions; orthogonal projection; characteristics of lines and planes; lettering; and dimensioning techniques. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 103(4) Course ID: 015755
CAD Fundamentals
Provides an introduction to team and project-based study of CAD (Computer Aided Drafting) and its applications in conjunction with current computer technology. Introduces topics that includes computer hardware and software, drafting conventions and operations, file management, the Internet, e-mail, social media, CAD commands and terminology, digital security, and computer and intellectual property ethics; presents basic applications of CAD skills in 2003D technical drawing production, programming systems, and interconnections with other utility software. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Digital Literacy

CAD 108(3) Course ID: 005186
Introduction to Surveying
Introduces the elements of surveying including measurements, distance corrections, leveling, angles, area computation, computer calculations, topographic surveying, electronic distance measuring instruments, construction surveying, GPS, and GIS. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAD 112(4) Course ID: 004054
Engineering Graphics
Applies fundamental principles and capabilities of CAD, basic drafting conventions, and operations. Provides an in-depth study of computer aided drafting commands, terminology, command utilization, and skill development. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

CAD 120(4) Course ID: 004067
Introduction to Architecture
Introduces a practical approach to architectural drafting using board and/or computer aided drafting methods as it relates to residential and commercial architecture, specifications, and structural systems including wood, masonry, concrete, and steel. Prerequisite: CAD 100 OR CAD 103 with a grade of "C" or better or Approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical
CAD 130(4) Course ID: 004057
Descriptive Geometry
Examines the spatial relationships between points, lines, and planes in various orthogonal projections with graphical solutions; explores the processes to solve problems using auxiliary projection methods, revolutions, intersections, and developments. Prerequisite: CAD 112 with a grade of "C" or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 150(4) Programming in CAD
Course ID: 000217
Introduces fundamental principles of the computer language(s) that represents and interfaces with the main CAD software. Includes writing subroutines and programs to perform CAD functions not available in the main CAD software. Prerequisite: CAD 100 OR CAD 103 with a grade of "C" or better or approval of the Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CAD 200(4) Intermediate Computer Aided Drafting
Course ID: 000218
Introduces advanced two- and three-dimensional object drawings with CAD software to learn the techniques of drafting, layering, symbols associated with one or more design applications, and calculate parameters, areas, and volumes associated with the drawings. Prerequisite: CAD 100 OR CAD 103 with a grade of "C" or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 201(4) Parametric Modeling
Course ID: 002219
Introduces parametric modeling and design of a CAD workstation in exploring the techniques associated with drafting and design using parametric modeling software. Introduces creation of parametric models and explores associative function and flexibility of concurrent part design. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 212(4) Industrial Drafting Processes
Course ID: 004059
Explores weldment design, welding symbols, welding processes, and fabrication techniques, tool and die, and jig and fixture design. Includes design specifications, pattern drawings, casting, forming processes, and mechanical drawing principles in relation to the manufacturing industry. Covers screw-thread design and related fastening concepts as they relate to manufactured item and construction. Prerequisite: CAD 100 OR CAD 103 with a grade of "C" or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 216(4) Building Information Modeling
Course ID: 016429
Introduces Building Information Modeling (BIM), an intelligent model-based process that provides insight to help plan, design, construct, manage buildings and infrastructure through three dimensional models, and generate construction drawing sheet sets. Creates structures for analytical purposes such as visualization, quality take off, cost estimating, scheduling, coordination and facility management across various fields, including architectural, structural and mechanical, electrical, and plumbing. Using BIM technology enables discovery of potential conflicts between these fields. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 220(4) Architectural Design
Course ID: 004068
Applies the theory of architectural design and presentation techniques. Deals with site selection, use of materials in design, spatial relationships, and aesthetics. Explores traditional and contemporary design, designers, processes, and historical milestones. Uses board and computer techniques to illustrate interiors and exteriors of student designs. Prerequisite: CAD 120 with a grade of "C" or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 222(4) Mechanical Design
Course ID: 004061
Explores the design principles, mechanical adaptation, and drawing practices involved in the development of mechanical working drawings and the design principles in various manufacturing disciplines; gear drawing and design, and cam and follower drawing; and the theory, application, and design of the parts of systems and equipments. Involves shop processes in these mechanical design. Prerequisite: CAD 100 with a grade of "C" or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 230(4) Construction Techniques
Course ID: 003996
Covers the elements for constructing standard residential and commercial structures; essentials of standard construction details, which illustrate the various construction methods involved in wood frame, solid masonry, concrete, and steel construction. Includes the development of a portfolio for these techniques. Prerequisite: CAD 120 with a grade of "C" or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 240(4) Advanced Dimensioning and Measurement
Course ID: 004008
Presentation of an in-depth study of advanced industrial dimensioning principles, tolerances, fits, and A.N.S.I. standards. Explores shapes and geometric characteristics of parts through geometric dimensioning and tolerancing through drawing application and study. Prerequisite: CAD 100 with a grade of "C" or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 252(4) Commercial Detailing
Course ID: 004070
Explores commercial drafting building codes, building structure, materials, and structural detailing. Emphasizes calculations to determine appropriate structural members. Prerequisite: CAD 120 with a grade of "C" or better or Approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 262(4) Working Drawings
Course ID: 005185
Prepares a set of working drawings to be used in a portfolio that shows mastery of the architectural drawing processes and knowledge of building construction techniques. Prerequisite: CAD 120 with a grade of "C" or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 291(2) Commercial Detailing
Course ID: 004062 Department Consent Required
Special Problems
Explores the design principles, mechanical adaptation, and drawing practices involved in the development of mechanical working drawings and the design principles in various manufacturing disciplines; gear drawing and design, and cam and follower drawing; and the theory, application, and design of the parts of systems and equipments. Involves shop processes in these mechanical design. Prerequisite: CAD 120 with a grade of "C" or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 293(1 - 4) Course ID: 004064 Department Consent Required
Practicum
Provides supervised work experiences related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. Prerequisite: Approval of Program Coordinator. Practicum: 1.0-3.0 credits (45-135 contact hours).
Components: Practicum Attributes: Technical

CAD 298(1 - 3) Course ID: 004066 Department Consent Required
Co-op
Provides supervised work experiences related to the student’s educational objectives. Students participating in the Co-op Education program receive compensation for their work. Prerequisite: Approval of Program Coordinator. Co-op: 1.0-3.0 credits (45-135 contact hours).
Components: Co-Op Attributes: Technical

CAD 299(1 - 3) Course ID: 004065 Department Consent Required
Special Problems
Consent Required

CAD 126(3) Intro to Construction
Course ID: 001152
Provides a discussion of the different employment opportunities of construction careers within the construction industry including different construction systems and methods as well as basic management of a construction project. Emphasizes the different building materials and the correct use of hand and power tools. Includes shop and job-site safety. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAD 127(1) Intro to Construction - Lab
Course ID: 001153
Provides students to research different employment opportunities of construction-related careers. Introduces the student to different construction systems and methods as well as practice basic management methods of a construction project. Permits student to become familiar with common building materials and the correct use of hand and power tools. Implements shop and job-site safety standards. Corequisite: CAR 126. Laboratory: 1 credit (30 contact hours).
Components: Laboratory Attributes: Technical

CAR 1 Construction/Carpentry
CAR 140(3) Course ID: 001154
Surveying & Foundations
Enables the student to become familiar with construction surveying methods, site layout procedures and materials used in the construction of foundation systems as well as discussion on the use of the builders level, transit and laser levels. Covers the characteristics of concrete, excavation procedures, forming methods and material estimating. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 141(2) Course ID: 001155
Surveying & Foundations-Lab
Familiarizes the student with construction surveying methods, site layout procedures and materials used in the construction of foundation systems as well as the application of the builders level, transit and laser levels. Covers the application of concrete procedures, excavation procedures, forming methods and material estimating. Corequisite: CAR 140. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 150(3) Course ID: 001156
Concrete Formwork
Introduces the carpentry student to heavy and commercial concrete form construction methods. Covers information about properties of concrete as a building material, rigging, concrete wall form systems, above grade floor systems, vertical pier column and form systems, on grade curb forms, horizontal beam forms, fire proofing encasement forms, stair forms, bridge and deck forms. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 151(2) Course ID: 001157
Concrete Formwork-Lab
Introduces the carpentry student to heavy and commercial concrete form construction methods. Provides for the application of information about the properties of concrete, rigging, concrete wall form systems, above grade floor systems, vertical pier column and form systems, on grade curb forms, horizontal beam forms, fire proofing encasement forms, bridge and deck forms. Familiarizes student with OSHA construction standards on Concrete and Shoring, and Excavations. Corequisite: CAR 150. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 190(3) Course ID: 001158
Light Frame Construction I
Emphasizes methods of floor, wall and stair framing, layout and construction. Provides discussion of industry safety standards and building codes. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 191(2) Course ID: 001159
Light Frame Const. I-Lab
Permits the student to practice floor, wall, and stair framing layout and construction techniques including the implementation of building codes and industry safety standards during a job site project. Corequisite: CAR 190. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 196(3) Course ID: 001160
Light Frame Construction II
Covers basic roof design and combination roof designs used in the construction industry including the layout and installation practices that will be used to fabricate and install ceiling and roof framing systems. Provides discussion of job-site safety practice, scaffold and ladder safety that deals with roof construction, and building code requirements for roof construction and material estimating. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 197(2) Course ID: 001161
Light Frame Const. II-Lab
Covers basic roof design and construction methods used in the construction industry including layout, cut and install ceiling joists, rafters, and roof decking materials. Includes layout and installation practices for roof truss systems, job-site safety practice, scaffold and ladder safety that deals with roof construction and building code requirements for roof construction and material estimating. Corequisite: CAR 196. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 198(1 - 6) Instructor Consent Required
Special Topics in Carpentry
Includes various Construction Carpentry Technology topics, issues and trends. Topics may vary semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Prerequisite: Consent of Instructor. Lecture: 1-6 credits (15-90 contact hours). Laboratory: 1-6 credits (30-180 contact hours).
Components: Lecture Attributes: Technical

CAR 199(2 - 4) Co-op in Construction I
Refines the techniques and skills taught in the previous carpentry courses. Provides a supervised on-the-job experience related to the student’s educational and career training objectives. Prerequisite: ISX 100 and/or permission of instructor. Co-Op: 2.0-4.0 credits (150-300 contact hours).
Components: Co-Op Attributes: Technical

CAR 200(3) Course ID: 001162
Light Frame Const. II-Lab
Presents the concepts of interior and exterior finish materials and methods of installation. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 201(2) Course ID: 001163
Light Frame Const. III-Lab
Presents the concepts of interior and exterior finish methods for light frame construction. Corequisite: CAR 200. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 202(3) Course ID: 001164
Light Frame Const. IV-Lab
Presents the concepts of exterior finish materials and methods of installation. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 203(1) Course ID: 016152
Light Frame Const. III - Interior
Presents the concepts of interior finish materials and methods of installation. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CAR 204(1) Course ID: 016153
Light Frame Const. III - Exterior
Presents the concepts of exterior finish materials and methods of installation. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CAR 205(1) Course ID: 016154
Light Frame Const. III - Scheduling
Presents the concepts of interior and exterior finish materials and methods of installation. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CAR 209(1) Course ID: 016155
Light Frame Const. III Lab Interior
Components: Laboratory

CAR 210(1 - 6) Instructor Consent Required
CDH Community Dental Health
Provides an overview of oral health communication, oral health literacy, and patient assessment interviewing skills for the Community Dental Health Coordinator.
Components: Lecture Attributes: Technical

CDH 110(3) Course ID: 016830
Dental Health Communication Skills
Provides an overview of oral health communication, oral health literacy, and patient assessment interviewing skills for the Community Dental Health Coordinator. Emphasizes impact of oral health literacy on one’s health. Includes communication strategies, verbal and nonverbal communication skills. Covers motivational interviewing, human behaviors, and health concepts emphasizing oral health. Incorporates patient assessment, feedback, education, and behavior change interventions for dental patients. Pre-requisite: Must be a registered Dental Hygienist (RDH). Course: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical
CDH 115(3)  Course ID: 016831
Dental Health Coordination, Documentation, Reporting, and Finance
Provides an overview of coordination, documentation and reporting approaches for working with families as well as individuals. Includes family assessment, case documentation and overview of the services system. Covers health care finance, the referral process and components of case management. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CDH 125(2)  Course ID: 016832
Dental Health Teaching and Learning Skills
Provides an overview of teaching and learning skills as they apply to the Dental Health field. Includes teaching and learning techniques, goal setting and critical thinking. Covers internet usage and safety as well as an introduction to concepts of lifelong learning. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

CDH 220(3)  Course ID: 016833
Prevention of Periodontal Disease
Covers education and procedures used in the prevention of periodontal disease. Includes soft deposits, calculus and identification of tissue changes as well as characteristics of the most common types of periodontal disease. Covers oral cancer treatment and use of sickle scales for performing gross debridement. Presents coronal polishing. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CDH 245(3)  Course ID: 016834
Community Dental Health Coordinator Internship
Demonstrates practical application of the Community Dental Health Coordinator (CDHC) skills in a practicum setting. Includes knowledge and skills required to organize, develop and manage integrated dental care in community-based clinics within practice standards. Pre-requisite: Must be a registered Dental Hygienist (RDH). Practicum: 6.0 hours (360 contact hours).
Components: Lecture
Attributes: Technical

CET Civil Engineering Technology

CET 150(3)  Course ID: 004703
Civil Engineering Graphics
This course provides the opportunity for the student to learn the basic theory necessary to generate and understand typical civil engineering working drawings. The student will develop graphic communication skills using current industry standard software. Prerequisite: CAD 100 or ACH 185/195. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CET 200(3)  Course ID: 004704
Civil Engineering Materials
The course will provide a practical look at current practice in the use of materials for civil engineering applications. Students will learn test procedures, design considerations, and overall evaluation methods for these materials. The course will include the study of soils, aggregates, concrete, and asphalt cement. Prerequisite: ACH 160. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Technical

CET 210(3)  Course ID: 004705
Structural Analysis and Design
The course will cover building structure for civil engineering technology students, including different types of building loads and their effect upon the various materials used by architects, engineers and technologists. The students will be introduced to quality construction techniques utilizing steel, concrete and reinforced concrete. Industry manuals, specifications and computer programs will be utilized to familiarize the student with current technology. Prerequisite: ACH 225. Lecture: 3 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CHE Chemistry

CHE 120(3)  Course ID: 000237
Chemistry in Society
Introduces non-science majors to the main concepts and applications of chemistry in our society. Prerequisite: Completion of one developmental math course above Pre-Algebra with a grade of “C” or better) OR (College level math ACT score) OR equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science, Course Also Offered in Modules

CHE 125(1)  Course ID: 006172
Chemistry in Society Laboratory
Reinforces concepts covered in CHE 120 and introduces scientific inquiry through selected experiments. Prerequisite or corequisite: CHE 120. Laboratory: 1 credit (45 contact hours) (45:1 ratio).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 130(4)  Course ID: 000236
Introductory General and Biological Chemistry
Presents the elementary principles of general, organic and biological chemistry. Prerequisite: (Applied Mathematics OR Intermediate Algebra or higher) with a grade of “C” or better OR (College level math ACT score). Lecture: 3.0 credits (45 contact hours); Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory, SN - Science

CHE 140(3)  Course ID: 000224
Introductory General Chemistry
Introduces topics in general chemistry, including properties of matter, stoichiometry, gases, atomic structure, bonding, acids and bases, oxidation and reduction, and nuclear chemistry. Included for students interested in a one- semester course in general chemistry and recommended for students seeking careers in allied health fields. Prerequisite: (Intermediate Algebra) or (College Algebra or higher) with a grade of “C” or better) OR (College Level math ACT score). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

CHE 145(1)  Course ID: 000239
Introductory General Chemistry Laboratory
Reinforces concepts covered in CHE 140 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with chemical and physical properties, qualitative analysis, and quantitative analysis. Prerequisite or corequisite: CHE 140. Laboratory: 1 credit (45 contact hours, 45:1 ratio).
Components: Lecture
Attributes: SL - Science Laboratory

CHE 150(3)  Course ID: 000226
Introduction to Organic and Biological Chemistry
Continues the sequence begun in CHE 140. Introduces topics in organic chemistry and biochemistry. Introduces organic functional groups, their reactions, and the chemistry of proteins, nucleic acids, carbohydrates, and lipids. Prerequisite: CHE 140 with a grade of “C” or better Lecture: 3 credits (45 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory, SN - Science

CHE 155(1)  Course ID: 006173
Introduction to Organic and Biological Chemistry Laboratory
Reinforces concepts covered in CHE 150 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with the preparation, characterization, and purification of organic compounds and the reactions of biomolecules. Prerequisite: CHE 140 and CHE 145. Prerequisite or corequisite: CHE 150. Laboratory: 1 credit (45 contact hours, 45:1 ratio).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 160(2)  Course ID: 000238
Preparation for General College Chemistry
Prepares students for success in CHE 170. Introduces vocabulary and nomenclature and provides students with practice in dimensional analysis, stoichiometry, and other critical skills. Offered on a Pass/Fail basis only. Prerequisite: (Math ACT 19) OR (Intermediate Algebra with a grade of “C” or better). Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Other

CHE 170(4)  Course ID: 000225
General College Chemistry
Focuses on major chemical topics, including stoichiometry, atomic structure, properties of matter and the relationship between molecular structure and chemical behavior. Emphasizes solving of mathematical problems which illustrate the principles of chemistry. Designed for students in the sciences, engineering, and pre-professional programs. Prerequisite: (ACT math score of 21) OR (College Algebra or higher with “C” or better) OR (CHE 130 OR CHE 140 with a grade of “C” or better) OR (CHE 160 with a grade of “P”) OR (Appropriate score on math on chemistry placement exam.). Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: SN - Science
CHE 175(1)  Course ID: 000240
General College Chemistry Laboratory I
Reinforces concepts covered in CHE 170 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments. Emphasizes both quantitative and qualitative techniques. Prerequisite or corequisite: CHE 170. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory, SN - Science

CHE 180(4)  Course ID: 000227
General College Chemistry II
Continues CHE 170. Focuses on major chemical topics, including acid-base chemistry, kinetics, thermodynamics, and chemical equilibrium. Emphasizes solving of mathematical problems which illustrate the principles of chemistry. Designed for students in the sciences, engineering, and pre-professional programs. Prerequisite: (CHE 170 with a grade of “C” or better) and (College Algebra or higher with “C” or better). Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: SN - Science

CHE 185(1)  Course ID: 000241
General College Chemistry Laboratory II
Reinforces concepts covered in CHE 180 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments. Emphasizes both quantitative and qualitative techniques. Prerequisite: CHE 175 with a grade of “C” or better. Prerequisite or corequisite: CHE 180. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 190(3)  Course ID: 006802
Industrial Chemistry
Introduces topics in basic chemical engineering and chemical processing. Includes organic chemistry, synthetic polymers, energy sources, diffusion, fluid flow, heat transfer, recycling, air and water pollution. Intended for students in the chemical engineering technology program. Pre-requisite: (CHE 140 and CHE 145) or consent of instructor. Co-requisite: CHE 195. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

CHE 195(1)  Course ID: 006803
Industrial Chemistry Laboratory
Reinforces concepts covered in CHE 190. Includes basic laboratory techniques, methods, and selected experiments dealing with chemical engineering technology. Prerequisite: (CHE 140 and CHE 145) or consent of instructor. Co-requisite: CHE 190. Lab: 1.0 credit hour (45 contact hours).
Components: Laboratory
Attributes: Other

CHE 253(3)  Course ID: 006580
Materials Science
The properties of materials as reflected by the atomic and electronic structure of their constituent elements. Mechanical, thermal, electrical, magnetic, optical, and chemical characteristics of metallic, ceramic, polymeric, and composite solids. Pre-requisites: CHE 190. Lecture: 3.0 (45 contact hours).
Components: Lecture
Attributes: University Course (University of Louisville)

CHE 270(3)  Course ID: 000230
Organic Chemistry I
Presents the fundamental principles of organic chemistry. Emphasizes the structures and properties of carbon containing compounds. Introduces organic reactions, their mechanisms, and applications to synthesis. Prerequisite: CHE 180 with a grade of “C” or better. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

CHE 275(2)  Course ID: 000231
Organic Chemistry Laboratory I
Introduces common techniques used in the laboratory for purification, separation, identification, and reactions of organic compounds. Prerequisite: CHE 185 with a grade of “C” or better. Prerequisite or corequisite: CHE 270. Laboratory: 2 credit (60 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 280(3)  Course ID: 000232
Organic Chemistry II
Introduces further applications of the principles of organic chemistry. Continues the study of organic reactions, their mechanisms, synthesis and modern spectroscopic techniques. Prerequisite: CHE 270 with a grade of “C” or better. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

CHE 285(2)  Course ID: 000233
Organic Chemistry Laboratory II
Explores the synthesis, purification, and characterization of organic compounds in the laboratory. Prerequisite: CHE 275 with a grade of “C” or better. Prerequisite or corequisite: CHE 280. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 290(1 - 3)  Course ID: 006175
Instructor Consent Required
Selected Topics in Chemistry. (Topic)
Presents a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Prerequisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture

CHE 295(1 - 3)  Course ID: 006176
Instructor Consent Required
Selected Topics in Chemistry Laboratory. (Topic)
Explores experiments pertinent to a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Prerequisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory

CHE 299(1 - 3)  Course ID: 006177
Instructor Consent Required
Laboratory Research in Chemistry. (Topic)
Offers the student the opportunity to perform laboratory research on a problem chosen by the instructor. Course may be repeated to a maximum of six credit hours. Prerequisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory

CHE 1201(0.75)  Course ID: 006126
Fundamentals
Introduces non-science majors to the fundamentals and applications of chemistry in our society. Prerequisite: (Completion of one developmental math course above Pre-Algebra with a grade of “C” or better OR (College level math ACT score) OR equivalent. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

CHE 1202(0.75)  Course ID: 006127
Intro to Organic & Biochem
Introduces non-science majors to the fundamentals and applications of organic and biochemistry in society. Prerequisite: CHE 1201. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

CHE 1203(0.75)  Course ID: 006128
Selected Topics in Chemistry and Culture
Introduces non-science majors to selected topics in chemistry and culture. Prerequisite: CHE 1201 or 1202. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

CHE 1204(0.75)  Course ID: 006129
Special Topics: Fields of Chemistry
Introduces non-science majors to different fields in chemistry through applied special topics. Prerequisites: CHE 1201, 1202, or 1203. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

CIT 230(3)  Course ID: 000264
Advanced Microcomputer Applications
Students use advanced functions of current software packages (word processing, spreadsheets, database management, presentation developers). Topics include working with complex documents and creating and preparing data for distribution on the Web. Lecture: 3 hours. Prerequisite: CIS 130 or consent of instructor.
Components: Lecture
Course Equivalents: CIT 234
Attributes: Course Also Offered in Modules, Technical

CIS 2301(0.9)  Course ID: 005848
Word Processing Level 3
Uses advanced functions of word processing. Includes working with complex documents and creating and preparing data for distribution on the Web. Prerequisite: (CIS 130 or CIS 1302) or consent of instructor. Lecture: 0.9 credit (13.5 contact hours).
Components: Lecture

CIS 2302(0.9)  Course ID: 005849
Spreadsheets Level 3
Uses advanced functions of spreadsheets. Includes working with complex spreadsheets and the creation and preparation of data for distribution on the Web. Prerequisite: (CIS 130 or CIS 1302) or consent of instructor. Lecture: 0.9 credits (13.5 contact hours).
Components: Lecture

CIS 2303(0.9)  Course ID: 005850
Databases Level 3
Uses advanced functions of databases. Includes working with complex databases and the creation and preparation of data for distribution on the Web. Prerequisite: (CIS 130 or CIS 1302) or consent of instructor. Lecture: 0.9 credit (13.5 contact hours).
Components: Lecture

CIS 2304(0.3)  Course ID: 005851
Presentation Software Level 3
Uses advanced functions of presentation software. Includes working with complex presentations and the creation and preparation of data for distribution on the Web. Pre-requisite/CIS 130 or CIS 1302) or consent of instructor. Lecture: 0.3 credit (4.5 contact hours).
Components: Lecture

CIT 90(3)  Course ID: 007435
Fundamental Computer Skills
Introduces computer skills fundamental to college success. Focuses on computer terminology; rudimentary skills in touch typing; creating simple documents, slide shows, and spreadsheets; using a course management system; using a search engine to find information on the Internet; initializing and using student email and online student services. This course does not fulfill the Digital Literacy requirement. Lecture: 3 hours. Prerequisite: CIT 90 or consent of instructor.
Components: Lecture
Attributes: Technical

CIT Computer Information Technology
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105(3)</td>
<td>Introduction to Computers</td>
<td>Provides an introduction to the computer and the convergence of technology as used in today's global environment. Introduces topics including computer hardware, software, file management, the Internet, e-mail, the social web, green computing, security, and computer ethics. Presents basic use of application, programming, systems, and utility software. Basic keyboarding skills are strongly recommended. Prerequisite: RDG 20 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 111(4)</td>
<td>Computer Hardware and Software</td>
<td>Presents a practical view of computer hardware and client operating systems. Covers computer hardware components; troubleshooting, repair, and maintenance; operating system interfaces and management tools; networking components; computer security; and operational procedures. Prerequisite: CIT 105 AND MAT 085 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).</td>
</tr>
<tr>
<td>CIT 120(3)</td>
<td>Computational Thinking</td>
<td>Promotes understanding of computer programming and logic by teaching students to think like a computer. Covers skills needed to develop and design language-independent solutions to solve computer-related problems. Covers development and design basics including use of variables, control and data structures, and principles of command-line and object-oriented languages. Prerequisite: CIT 105 OR OST 105 OR IMD 100 AND (MAT 085 OR MAT 126) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 124(3)</td>
<td>Introduction to Game Development</td>
<td>Presents an overview of the game development process including game development history, platforms, goals, genres, players, story and character development, gameplay, levels, interfaces, audio, development processes, development team roles, marketing, and maintenance. Offers students the opportunity to play and analyze games facilitating discussion on game design and function. Completion of partial game design will occur. Prerequisite: CIT105 OR IMD100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 125(3)</td>
<td>Intro to Digital Maps</td>
<td>Provides basic theories and concepts of geographical information systems including basic GIS capabilities, data analysis, data types, coordinate systems, cartography and mapping concepts. Introduces GIS software using industry-specific applications and technology to provide a conceptual base to build expertise in GIS. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 130(3)</td>
<td>Productivity Software</td>
<td>Utilizes current word processing, spreadsheet, database, and presentation application software to solve common business problems. Covers basic features of each software application. Prerequisite: CIT 105 OR OST 105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 140(3)</td>
<td>JavaScript I</td>
<td>Provides students with an overview of the JavaScript scripting language. Includes coding, testing, and debugging JavaScript programs; using variables, operators, and data types; and creating dynamic web pages using JavaScript; controlling the behavior of forms, buttons, and text elements; and using control structures, pattern matching, objects, and application scripts. Prerequisite: CIT 120 AND (CIT 150 or CIT 155) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 141(3)</td>
<td>PHP I</td>
<td>Explores the fundamentals of PHP, with emphasis on syntax, structure, and current usage, includes dynamic generation of web pages, fluid forms, and web security. Prerequisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 142(3)</td>
<td>C++ I</td>
<td>Introduces students to fundamental programming concepts using the C++ programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, and information and file processing. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 143(3)</td>
<td>C# I</td>
<td>Introduces students to fundamental programming concepts using the C# programming language. Includes data types, control structures, simple data structures, error-handling, object-oriented programming, graphical user interfaces, and modular programming. Prerequisite: CIT 120. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 144(3)</td>
<td>Python I</td>
<td>Introduces students to fundamental programming concepts using the Python programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, object-oriented programming, graphical user interfaces and file processing. Prerequisite: CIT 120 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 145(3)</td>
<td>Perl I</td>
<td>Provides students with an overview of the PERL scripting language. Includes coding, testing, and debugging PERL programs; using variables, operators, and data types; and using control structures, pattern matching, objects, and application scripts. Prerequisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
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<tr>
<td>CIT 147(3)</td>
<td>Programming I: Language</td>
<td>Introduces students to fundamental programming concepts using an industry-specific or emerging programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, information and file processing, and uniqueness of the language used in the course. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 149(3)</td>
<td>Java I</td>
<td>Introduces students to fundamental programming concepts using the Java programming language. Includes data types, control structures, simple data structures, error-handling, object-oriented programming, graphical user interfaces, and modular programming. Prerequisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 150(3)</td>
<td>Internet Technologies</td>
<td>Provides students with a study of traditional and emerging Internet technologies. Covers topics including Internet fundamentals, Internet applications, Internet delivery systems, and Internet client/server computing. Provides a hands-on experience and some rudimentary programming in an Internet environment. Prerequisite: (CIT 105 AND CIT 120) OR Consent of the Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 151(3)</td>
<td>Social Media I</td>
<td>Introduces students to the study of social media. Covers topics including the uses, basic tools, and impact of social media upon society. Examines the benefits for business to leverage the use of social media as well as employing social media policy. Pre-requisite: Digital Literacy or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
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<tr>
<td>CIT 152(3)</td>
<td>Social Media Tools and Technologies</td>
<td>Introduces students to web-based social media tools. Explores and researches online applications, social networks, and web branding. Develops skills to leverage social media applications and niche markets to increase business presence. Pre-requisite: CIT 150 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>CIT 155(3)</td>
<td>Web Page Development</td>
<td>Introduces web page design through the use of HTML and CSS. Uses text and/or web editors to create web documents with various formats and page layouts, multimedia, tables and forms. Emphasizes W3C web design and accessibility standards. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
</tbody>
</table>
CIT 157(3)  
**Course ID:** 006005  
**Web Site Design and Production**  
Introduces web site production processes with particular emphasis on design involving layout, navigation, interactivity, and using web production software. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 160(4)  
**Course ID:** 004719  
**Intro to Networking Concepts**  
Introduces technical level concepts of non-vendor specific networking including technologies, media, topologies, devices, management tools, and security. Provides the basics of how to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure. Pre-requisite: MAT 65 OR Consent of Instructor. Pre-requisite Or Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules, Technical

CIT 161(4)  
**Course ID:** 006906  
**Introduction to Networks**  
Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Helps students to be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Pre-requisite: MT 065 OR Consent of Instructor. Pre-requisite or Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules, Technical

CIT 167(4)  
**Course ID:** 015644  
**Routing & Switching Essentials**  
Covers the architecture, components, and operations of routers and switches in a small network. Helps students learn how to configure a router and a switch for basic functionality. Helps students configure and troubleshoot routers and switches and resolve common issues with RIP-1, RIP-2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Pre-requisite: CIT 161 or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 170(3)  
**Course ID:** 004720  
**Database Design Fundamentals**  
Provides an overview of database and database management system concepts, internal design models, normalization, network data models, development tools, and applications. Pre-requisite: (CIT 105 OR OST 105 OR IMD 100) AND (MAT 085 OR MAT 120) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules, Technical

CIT 171(3)  
**Course ID:** 004721  
**SQL I**  
Provides students with an extensive introduction to database manipulation techniques. Introduces students to SQL, will create and maintain database objects; and store, retrieve, and manipulate data using SQL. Pre-requisite: (CIT 120 and CIT 170) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 180(3)  
**Course ID:** 006191  
**Security Fundamentals**  
Introduces basic computer and network security concepts and methodologies. Covers principles of security; compliance and operational security; threats and vulnerabilities; network security; application, data, and host security; access control and identity management; and e-commerce. Helps to prepare students for the COMPTIA Security+ examination. Pre-requisite: (CIT 105 AND CIT 160 OR CIT 161)); OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules, Technical

CIT 182(3)  
**Course ID:** 006911  
**Perimeter Defense**  
Presents information and skills required to secure computers and networks from attacks with an emphasis on configuration of firewalls and intrusion-detection systems. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules, Technical

CIT 184(3)  
**Course ID:** 006912  
**Attacks and Exploits**  
Provides knowledge and skills necessary to understand a variety of attacks and exploits against computers and networks. Teaches effective defensive techniques against real attacks. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules, Technical

CIT 201(3)  
**Course ID:** 007295  
**Information Storage Management**  
Provides a comprehensive introduction to storage technology. Explores the architectures, features, and benefits of intelligent storage systems, networked storage technologies, long-term archival solutions, information security, and the emerging field of storage virtualization and cloud technologies. Pre-requisite: (CIT 167 and (CIT 214 or CIT 217)) or consent of instructor Lecture/Lab: 3.0 credits (60 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 203(3)  
**Course ID:** 007296  
**Introduction to Virtualization**  
Provides an introduction to virtualization technologies including the architecture, its applications, and best practices. Utilizes VMware ESXi servers and VMware vCenter servers for creation and management of virtual machines, virtual switches and storage architectures including distributed resource scheduling, high availability, and fault tolerance. Satisfies the requirements for the vSphere Foundations exam and the VMware Certified Associate Data Center Virtualization (VCA-DCV). Pre-requisite:(CIT 167 and (CIT 214 or CIT 217) or consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 204(3)  
**Course ID:** 016721  
**VMware Optimize and Scale**  
Provides advanced skills for configuring and maintaining a highly available and scalable virtualization infrastructure. Utilizes techniques to optimize resources in a virtualized data center to support infrastructure as a service (IaaS) architectures. Satisfies the VMware Certified Professional/ Data Center Virtualization (VCP-DCV) course requirement. Pre-requisite: CIT 203 or Consent of Instructor. Lecture/ Lab: 3.0 credits (60 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 205(3)  
**Course ID:** 007297  
**Cloud Infrastructure and Services**  
Provides a comprehensive introduction to cloud computing deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. Examines the required technology essentials across all domains including server, storage, networking, applications, and databases to help develop a strong understanding of virtualization and cloud computing technologies. Pre-requisite: (CIT 201 and CIT 203) or consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 209(4)  
**Course ID:** 015645  
**Scaling Networks**  
Covers the architecture, components, and operations of routers and switches in a larger and more complex network. Helps students learn how to configure routers and switches for advanced functionality. Helps students to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Helps students to develop the knowledge and skills needed to implement DHCP and DNS operations in a network. Pre-requisite: CIT 167 or Consent of instructor. Lecture: 4.0 credits (60 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 212(4)  
**Course ID:** 004723  
**Connecting Networks**  
Covers WAN technologies and network services required by converged applications in a complex network. Enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Helps students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Helps students to develop the knowledge and skills needed to implement IPsec and virtual private network (VPN) operations in a complex network. Pre-requisite: CIT 209 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).  
**Components:** Lecture  
**Course Equivalents:** CIT 283  
**Attributes:** Technical

CIT 213(3)  
**Course ID:** 006192  
**Microsoft Client Configuration**  
Covers installation and configuration of the current Microsoft Windows client operating system. Helps prepare students for exams in the Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules, Technical

CIT 214(3)  
**Course ID:** 006914  
**Microsoft Server Configuration**  
Provides students with the knowledge and skills to install, configure and administer a network server infrastructure including DNS, DHCP, Hyper-V, including the design and implementation of an Active Directory environment. Covers how to implement and configure secure network access, implement fault tolerant storage technologies, enable network technologies most commonly used with Windows Servers and IP-enabled networks, configure an Active Directory environment, and work with virtual drives and devices. Assists in preparing students for various Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules, Technical

CIT 215(3)  
**Course ID:** 015661  
**Microsoft Server Administration**  
Covers the skills needed to maintain and administer a Windows Server 2012 environment, including user and group management, network access, and data security at an intermediate level. Helps prepare students to implement a core Windows Server infrastructure in an enterprise environment (second in a series of three courses), Pre-requisite: CIT 214. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules, Technical

CIT 216(3)  
**Course ID:** 015648  
**Microsoft Server Advanced Services**  
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server environment, including fault tolerance, certificate services, and identity federation. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment (third in a series of three courses). Pre-requisite: CIT 214. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical
CIT 217/3 (3) Course ID: 004724
UNIX/Linux Administration
Developed in 1969, the UNIX operating system shaped the development of the Internet and is still used extensively in servers, workstations, and mobile devices. Leam the fundamental skills necessary to install UNIX/Linux and maintain a UNIX/Linux system on a day-to-day basis. Prerequisite: (CIT 111 AND CIT 160) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours)
Components: Lecture Attributes: Technical

CIT 218/3 (3) Course ID: 004725
UNIX/Linux Net Infrastructure
Establishing secure networking environments is a key strength of the UNIX/Linux operating system. Explores naming, messaging, file transfer, remote login, routing, address assignment, distributed file systems, web, and email services in a standard UNIX/Linux server environment. Prerequisite: CIT 217 OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours)
Components: Lecture Attributes: Technical

CIT 221/3 (3) Course ID: 006916
Computer Graphics
Introduces basic computer graphics with an emphasis on graphics for game design. Instructors students in practical aspects of graphics such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Prerequisite: CIT 105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

CIT 222/3 (3) Course ID: 016260
3D Modeling for Video Games
Introduces students in the use of industry-standard 3D modeling software specific to the video-game industry. Emphasizes both architectural and character modeling. Familiarizes the student with key 3D modeling concepts and methods, workflow, and the creation and preparation of 3D assets for use specifically in a video-game application. Allows students to create a variety of 3D assets. Prerequisite: CIT/IMD 221 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

CIT 223/3 (3) Course ID: 006917
3D Animation for Video Games
Exposes students to the specialized process of animating 3D assets for gaming applications. Familiarizes students with animating both organic and inorganic assets, lighting scenes, rendering and producing cut-scenes, and preparing character assets for in-game motion. Allows students to acquire the necessary skills and techniques to integrate audio with their animations using basic sound engineering software and processes. Prerequisite: CIT/IMD 222 AND CIT/IMD 272 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

CIT 225/3 (3) Course ID: 006918
GIS Data Analysis
Explores Geographical Information System extensions. Introduces and identifies popular advanced extensions used for image analysis, spatial analysis, and 3D analysis. Collection and analysis of data from various sources and data collection applications. Prerequisite: CIT 125 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

CIT 229/3 (3) Course ID: 006919
Selected Topics in GIS
Explores selected topics in Geographical Information Systems such as homeland security, agriculture, government applications, remote sensing, spatial modeling, GPS techniques, or cartography. (Course may be repeated with different topics to a maximum of six credit hours.) Prerequisite: CIT 125 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

CIT 231/3 (3) Course ID: 016140
Management Information Systems
Introduces the sociotechnological aspects of information systems and their implications for organizations, as well as current topics and technologies associated with information systems. Emphasizes the Internet and e-commerce. Introduces other technologies both current and future. Emphasizes coverage of the combined application of sociotechnological principles and various technologies. Prerequisite: Digital literacy of instructor permission. Lecture: 3.0 credits (Lab 45)
Components: Lecture Attributes: Technical

CIT 232/3 (3) Course ID: 006193
Help Desk Operations
Introduces a variety of tools and techniques to provide user support in help desk operations. Explores help desk concepts, customer service skills, troubleshooting problems, writing for end users, help desk operations and software, needs analysis, facilities management, and other topics related to end user support. Prerequisite: CIT 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture

CIT 233/3 (3) Course ID: 016862
Android Programming I
Introduces students to fundamental Android mobile application development concepts. Prepares students to design, code, test, and publish Android mobile applications. Includes secure coding learning modules for Java and Android. Prerequisite: CIT 149 OR INF 120. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

CIT 234/3 (3) Course ID: 006920
PHP II
Explores the dynamic features of PHP and how it can interact to form spontaneous websites and dynamic feature rich content. Pre-requisite: CIT 141 OR Consent of Instructor. Lecture: 3.0 (45 contact hours)
Components: Lecture Attributes: Technical

CIT 242/3 (3) Course ID: 006921
C++ II
Introduces students to advanced programming concepts using C++. Includes advanced data structures, concurrency, innovative algorithms, advanced file processing, and topics that are unique to C++. Prerequisite: CIT 142 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

CIT 243/3 (3) Course ID: 006248
C II
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the C programming language. Includes graphical user interfaces, event-driven programming, advanced data types and structures, concurrency, and database processing, object-oriented programming, and database processing. Prerequisite: CIT 143. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

CIT 244/3 (3) Course ID: 015649
Python II
Provides students with an extensive overview of designing advanced computer applications using the Python programming language. Includes graphical user interfaces, event-driven programming, modular programming, advanced object-oriented programming, advanced data types and structures, input validation, error-handling, database processing, and client/server programming. Prerequisite: CIT 144 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

CIT 246/3 (3) Course ID: 006922
2-D Game Development: Language
Provides students with an introduction to two-dimensional game creation. Includes the creation of a two-dimensional game using an industry-specific or emerging programming language. This course may be repeated with a different language. Prerequisite: CIT 241 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

CIT 247/3 (3) Course ID: 006923
Programming II: Language
Introduces students to advanced programming concepts using an industry-specific or emerging programming language. Includes advanced features of the language studied, such as, advanced data structures, concurrency, innovative algorithms, advanced file processing, and topics that are unique to the language studied. Prerequisite: CIT 147 (for the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

CIT 249/3 (3) Course ID: 004729
Visual Basic II
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes graphical user interfaces, event-driven programming, modular programming, object-oriented programming, advanced data types and structures, input validation, error-handling, and file and database processing. Prerequisite: CIT 148 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical
CIT 249(3) 

Course: ID: 005208

Java II

Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes input and output streams, file processing, polymorphism, inheritance, multithreading, recursion, and other advanced topics. Pre-requisite: CIT 149 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 251(3) 

Course ID: 007392

Social Media II

Provides students with skills, knowledge, and experience to respond to the challenges of a rapidly changing global and cultural landscape through the implementation of social media strategies. Examines social media plans for building social profiles, selecting appropriate audiences, and effective communication through identified social media tools. Covers additional trends, case studies, and research on the creation on utilization of web and social media technologies and practices. Pre-requisite: CIT 151 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 253(3) 

Course ID: 005039

Data Driven Web Pages: (Topic)

Provides students with the knowledge and skills to design, implement, and manage a database-driven web site. Includes the study of databases and web servers in e-commerce, transaction processing, and client-side and server-side Web scripting. Includes the creation of a database-driven Web site. Prerequisite: (CIT 150 AND CIT 170 AND Approved Level I Programming Language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 255(3) 

Course ID: 005104

Web Server Administration

Provides an in-depth study of the functions required to run a safe and stable web server. Considers multiple web services on multiple platforms from installation to configuration, availability, and security. Requires hands-on experiences with web services. Prerequisite: (CIT150 AND CIT214 OR CIT218) AND CIT219 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 257(3) 

Course ID: 006925

Applied Internet Technologies

Provides a framework for integrating the content of the Internet Technologies Web Programming track into a complete and functioning web site. Creates a portfolio of a fully functional web site to aide in student employment within the Web Programming field. Pre-requisite: (CIT 140 AND CIT 171 AND CIT 253) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 258(3) 

Course ID: 005211

Internet Technologies Seminar

Incorporates research, study, and discussion of current and emerging topics, issues, and trends in Internet technologies. Requires participation in class presentations, as well as individual and/or group projects involving Internet technologies. Prerequisite: CIT 253 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 260(3) 

Course ID: 004730

Network Hardware Installation and Troubleshooting

Provides students with the knowledge and skills necessary to design, install, configure, and troubleshoot networking systems and equipment used to connect a local area network. Prerequisite: CIT 160 or consent of instructor Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
CIT 282(4) Course ID: 004737
Switching
Provides students with the skills necessary to understand and apply advanced networking concepts. Covers local area network (LAN) switching, virtual local area networks (VLANs), advanced network design concepts, advanced router configuration, and advanced network management projects. Completes one of four courses that prepares students for the Cisco Certified Network Associate (CCNA) certification exam. Prerequisite: CIT 160 or consent of instructor. Lecture: 4 credits (90 contact hours).
Components: Lecture Attributes: Technical

CIT 283(4) Course ID: 004738
Wide Area Network Design and Management
Provides students with the skills necessary to understand and apply advanced principles and applications in deploying networking hardware. Covers WAN design, WAN connectivity protocols such as PPP, ISDN, and Frame Relay, as well as advanced network management projects. Completes the final of four courses that prepares students for the Cisco Certified Network Associate (CCNA) certification exam. Prerequisite: (CIT 281 and CIT 262) or consent of instructor. Lecture: 4 credits (60 contact hours).
Components: Lecture
Course Equivalents: CIT 212
Attributes: Technical

CIT 284(3) Course ID: 006929
Computer Forensics
Provides basic knowledge on methods and processes for computer forensics, intrusion detection, evidence collection, disk imaging, and report writing. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 285(3) Course ID: 006930
MS Windows OS Security
Provides students the knowledge and skills necessary to secure the Windows operating system. Pre-requisite: CIT 180 AND (CIT 214 OR CIT 262) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 286(3) Course ID: 006931
UNIX/Linux OS Security
Provides students the knowledge and skills necessary to secure the UNIX/Linux operating system and to utilize the UNIX/Linux operating system for security functions. Emphasizes use of freely available security tools. Pre-requisite: (CIT 180 AND CIT 217) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 287(3) Course ID: 006932
Cisco OS Security
Provides students with comprehensive understanding of network security concepts. Includes installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Covers implementation of hosts and perimeter edge device firewalls and defense in-depth prevention systems. Pre-requisite: (CIT 185 OR CIT 212) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 288(3) Course ID: 006197
Network Security
Provides students with the knowledge and skills necessary to understand and defend against a variety of computer and network attacks. Focuses on both the offensive techniques used to launch attacks and the defensive techniques required to defend computers and networks. Pre-requisite: (CIT 180 AND Level 1 Network Technologies Specialization Sequence) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 290(3) Course ID: 004733
Instructor Consent Required
Internship
Provides on-the-job experience in computer and information technologies, requiring a minimum of 120 clock hours of appropriate experience approved by the faculty member (40 clock hours per credit); requires a learning contract, signed by the student, faculty member, and supervisor. Note: Course is offered on pass-fail basis only. Prerequisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 291(3) Course ID: 006198
CIT Capstone
Apply acquired knowledge, knowledge, and skills to successfully analyze, design, and plan a CIT project. Develop key project management and system analysis deliverables in a portfolio. Prerequisite: 36 credit hours of CIT Courses OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 295(1 - 3) Course ID: 004741
Independent Problems in CIT. Topic
Explores concepts and/or skills from special areas of interest in Computer & Information Technologies. Topics vary from semester to semester. May be repeated up to two times with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).
Components: Lecture Attributes: Technical

CIT 299(1 - 3) Course ID: 004742
Special Topics in CIT: (Topic)
Explores concepts and/or skills from special areas of interest in computer and information systems. May be repeated with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

CIT 1051(0.5) Course ID: 006972
Computer Basics
Provides an introduction to the computer and the convergence of technology including computer hardware and software, the social web, green computing, security and computer ethics. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture Attributes: Technical

CIT 1052(0.6) Course ID: 006973
System and Utility Software
Introduces file management and presents basic use of systems and utility software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture

CIT 1053(0.8) Course ID: 006974
Internet, Email, and Networks
Introduces the Internet, e-mail, course management systems and networking. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1054(0.5) Course ID: 006975
Globalization and the Cloud
Introduces globalization and impact and use of cloud computing. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1055(0.6) Course ID: 006976
Software Basics
Presents basic use of application and programming software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1111(0.8) Course ID: 007091
Computer Hardware Essentials
Provides a practical view of hardware components. Pre-requisite: (CIT 105 AND MAT 065) OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1112(0.8) Course ID: 007092
Computer Maintenance
Provides a practical view of troubleshooting, repair, and maintenance. Pre-requisite: CIT 1111 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1113(1) Course ID: 007093
Operating Systems and Tools
Provides a practical view of operating system interfaces and management tools. Pre-requisite: CIT 1112 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1114(0.8) Course ID: 007094
Networking and Security
Provides a practical view of networking components and computer security. Pre-requisite: CIT 1113 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1115(0.6) Course ID: 007095
Operational Procedures
Provides a practical view of operational procedures. Pre-requisite: CIT 1114 OR Consent of Instructor. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture

CIT 1201(1) Course ID: 006977
Basic Program Logic
Presents an introduction to computer programming and logic including program flow, data types and variables, and design tools. Pre-requisite: Digital Literacy AND MAT 065 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1202(1) Course ID: 006978
Control and Data Structures
Provides development and design basics to appropriately select control and data structures. Pre-requisite: CIT 1201 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1203(1) Course ID: 006979
Computer Program Application
Develop and design language-independent solutions, or computational thinking, to solve computer-related problems. Pre-requisite: CIT 1202 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1251(1) Course ID: 016856
Intro to Projection
Presentations, coordinate systems and basic mapping software utilization are introduced. Pre-requisite: CIT 105 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1252(1) Course ID: 016857
Intro to Publishing Maps
Displaying data and publishing of information are explored. Pre-requisite: CIT 1251 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1253(1) Course ID: 016858
Intro to Geospatial Data
Data analysis, remote sensing and database manipulation. Pre-requisite: CIT 1252 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
CIT 1301(0.8) Course ID: 006980
Word Processing Applications
Utilizes word processing application software to solve common business problems. Pre-requisite: CIT 105 OR OST 105 OR IMI 100 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1302(0.8) Course ID: 006981
Spreadsheet Applications
Utilizes spreadsheet application software to solve common business problems. Pre-requisite: Computer Literacy OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1303(0.8) Course ID: 006982
Database Applications
Utilizes database application software to solve common business problems. Pre-requisite: Computer Literacy OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1304(0.6) Course ID: 006983
Presentation Software Apps
Utilizes current presentation software application software to solve common business problems. Pre-requisite: Computer Literacy OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1401(0.6) Course ID: 006904
JavaScript Basics
Provides an overview of the JavaScript language. Introduces variables, operators, and data types. Pre-requisite: CIT 120 AND (CIT 150 or CIT 155) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1402(0.8) Course ID: 006985
Input/Output Processes
Introduces input and output statements using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1401 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1403(0.8) Course ID: 006986
Control Structures/Patterns
Introduces control structures and application scripts using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1402 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1404(0.8) Course ID: 006987
JavaScript Objects/Scripts
Introduces objects and application scripts using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1403 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1421(0.6) Course ID: 006988
C++ Overview
Introduces fundamental programming concepts using the C++ programming language. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1422(0.8) Course ID: 006989
C++ Control Structures
Introduces control structures for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1421 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1423(0.8) Course ID: 006990
C++ Functions
Introduces functions for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1422 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1424(0.8) Course ID: 006991
C++ Arrays and Pointers
Introduces arrays and pointers for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1423 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1441(1) Course ID: 016607
Python Overview
Introduces fundamental programming concepts (including data types and control structures) using the Python programming language. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1442(1) Course ID: 016608
Functions and Data Structures
Introduces simple data structures, error-handling, modular programming, and file processing using the Python programming language. Pre-requisite: CIT 1441 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1443(1) Course ID: 016609
Python OOPED Programming
Introduces object-oriented event-driven programming and graphical user interfaces using the Python programming language. Pre-requisite: CIT 1442 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1481(0.6) Course ID: 006992
Visual Basic Overview
Introduces fundamental programming concepts using the Visual Basic programming language. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1482(0.8) Course ID: 006993
VB Control Structures
Introduces control structures for the VB language. Identifies error-handling and code evaluation. Pre-requisite: CIS 1481 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1483(0.8) Course ID: 006994
VB Arrays
Introduces arrays and object oriented programming for the VB language. Identifies error-handling and code evaluation. Pre-requisite: CIS 1482 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1484(0.8) Course ID: 006995
VB File Processing
Presents modular programming and file processing for the VB language. Identifies error-handling and code evaluation. Pre-requisite: CIS 1483 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1491(1) Course ID: 016592
Java Programming Structure
Introduces students to fundamental programming concepts using the Java programming language including data types, control structures, error-handling, and simple data structures. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1492(1) Course ID: 016593
Java Oriented Design
Introduces students to fundamental programming concepts using the Java programming language to develop object-oriented and modular programming. Pre-requisite: CIT 1491 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1493(1) Course ID: 016594
The Java GUI
Introduces students to fundamental programming concepts using the Java programming language to develop graphical user interfaces. Pre-requisite: CIT 1492 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1501(0.6) Course ID: 006996
Internet Technologies
Presents traditional and emerging Internet technologies including Internet fundamentals and governing organizations for the web. Pre-requisite: (CIT 105 AND CIT 120) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1502(0.6) Course ID: 006997
Internet Tools
Provides an overview of Internet Technologies and protocols across the Internet. Pre-requisite: CIT 1501 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1503(0.8) Course ID: 006998
eCommerce
Presents practical eCommerce strategies for publishing on the web including core connectivity, naming conventions, and web registration. Pre-requisite: CIT 1502 or Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1551(1) Course ID: 016715
Web Page Development Basics
Introduces web page design through the use of HTML and CSS. Emphasizes W3C web design and accessibility standards. Pre-requisite: CIT 105 OR Consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1552(1) Course ID: 016716
Web Page Development Formatting
Uses text and/or web editors to create web documents with various formats and page layouts, multimedia, tables and forms. Emphasizes W3C web design and accessibility standards. Pre-requisite: CIT 1551 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1553(1) Course ID: 016717
Web Page Development Publishing
Implements web page design through the use of HTML and CSS. Emphasizes W3C web design and accessibility standards. Pre-requisite: CIT 1552 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1571(1) Course ID: 016718
Fundamentals of Web Design
Introduces web site production and design process. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 0.5 credit hours (7.5 contact hours) Laboratory: 0.5 credit hours (7.5 contact hours).
Components: Laboratory, Lecture

CIT 1572(1) Course ID: 016719
Website Design and Accessibility
Introduces web site design with particular emphasis on design involving layout, navigation, and interactivity. Pre-requisite: CIT 1571 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours) Laboratory: 0.5 credits (7.5 contact hours).
Components: Laboratory, Lecture

CIT 1573(1) Course ID: 016720
Presentation Software Apps
Utilizes current presentation software application software to solve common business problems. Pre-requisite: Computer Literacy OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1574(1) Course ID: 016721
Fundamentals of Web Design
Introduces web site production and design process. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 0.5 credit hours (7.5 contact hours) Laboratory: 0.5 credit hours (7.5 contact hours).
Components: Laboratory, Lecture

CIT 1575(1) Course ID: 016722
Website Design and Accessibility
Introduces web site design with particular emphasis on design involving layout, navigation, and interactivity. Pre-requisite: CIT 1571 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours) Laboratory: 0.5 credits (7.5 contact hours).
Components: Laboratory, Lecture
CIT 1573(1) Course ID: 016720
Web Site Media and Production
Introduces web site production software. Pre-requisite: CIT 1752 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1601(1) Course ID: 007000
Networking Basics
Introduces non-vendor specific technical level networking concepts. Pre-requisite: MAT 65 OR Consent of Instructor. Pre-requisite OR Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1602(1) Course ID: 007001
Network Media and Technologies
Introduces non-vendor specific networking concepts such as the media, technologies, topologies, and devices. Pre-requisite: CIT 1601 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1603(1) Course ID: 007002
Network Management
Presents the principles of how to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure. Pre-requisite: CIT 1602 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1604(1) Course ID: 007003
Network Tools and Security
Introduces tools used to troubleshoot and secure networks. Pre-requisite: CIT 1603 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1611(0.3) Course ID: 016318
Network Basics
Introduces students to basic concepts and components of a data network and the Internet, architecture, structure, functions, components, and models. Pre-requisite: MAT 065 OR Consent of Instructor. Pre-requisite OR Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture

CIT 1612(0.4) Course ID: 016319
Protocol Models
Describes the principles of simple LAN development including the OSI and TCP/IP models, the encapsulation process, and data flow between two hosts across a network. Pre-requisite: CIT 1611 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

CIT 1613(0.6) Course ID: 016320
OSI Layer Operations
Describes the functions and responsibilities of the various OSI model layers pertaining to simple LANs. Pre-requisite: CIT 1612 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1614(0.7) Course ID: 016321
Basic IP Addressing
Introduces the format, function, and types of IP addressing used in simple LAN networks. Pre-requisite: CIT 1611 OR Consent of Instructor. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture

CIT 1615(1) Course ID: 016322
IP Subnetting
Introduces the designing implementation of IP addressing schemes for simple LAN networks including IPv4 and IPv6. Pre-requisite: CIT 1614 OR Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

CIT 1616(0.5) Course ID: 016323
Ethernet Networks
Introduces the fundamental Ethernet concepts including operation and design of an Ethernet network. Pre-requisite: CIT 1613 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1617(0.5) Course ID: 016325
Configuring Switches & Routers
Introduces basic configuration of routers and switches using the command line interface (CLI) including utilities to test and monitor the operation of a simple LAN network. Pre-requisite: CIT 1616 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1621(1) Course ID: 007004
Hardware and Operating Systems
Provides concepts about PC hardware and operating systems. Pre-requisite OR Consent of Instructor. Pre-requisite OR Co-requisite: CIT 111 OR Consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1622(1) Course ID: 007005
Network Connections & Resources
Presents concepts and skills for connecting computer hardware to network. Provides overview of network addressing, services, and security. Pre-requisite: CIT 1621 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1623(1) Course ID: 007006
Network Troubleshooting
Provides concepts and techniques for troubleshooting errors and issues on a network. Pre-requisite: CIT 1622 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1624(1) Course ID: 007007
Network Planning
Provides skills for planning and implementing a small network. Pre-requisite: CIT 1623 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1631(1) Course ID: 007008
Internet Communications
Provides a basic overview of the Internet, network models, and ISP troubleshooting. Develops skills for computer technicians, network, and help desk technicians. Pre-requisite: CIT 162 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1632(1) Course ID: 007009
Planning/Upgrading Networks
Provides a basic overview of networks including planning and upgrades. Develops skills required for computer technicians, network, and help desk technicians. Pre-requisite: CIT 1631 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1633(1) Course ID: 007010
Configuring Networks
Provides a basic overview of routing, remote access, and covers servers that provide e-mail services. Develops skills required for computer technicians, network, and help desk technicians. Pre-requisite: CIT 1632 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1634(1) Course ID: 007011
Maintaining Networks
Provides a basic overview of network monitoring, recovery procedures, and troubleshooting. Develops skills required for computer technicians, network, and help desk technicians. Pre-requisite: CIT 1633 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1671(0.3) Course ID: 016326
Intro to Switching
Covers basic concepts and operation of switched networks, including LAN design, architecture and components. Describes basic operations of switches including configuration and port security. Pre-requisite: CIT 161 OR Consent of Instructor. Lecture: 0.3 (4.5 contact hours).
Components: Lecture

CIT 1672(0.5) Course ID: 016327
Enhanced Switching
Describes various VLAN (VLAN) basics and implementation. Pre-requisite: CIT 1671 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1673(0.6) Course ID: 016328
Routing Processes
Covers operations of routers in a small network including static and default routing. Examines the role of the router and the routing tables in a network. Pre-requisite: CIT 161 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1674(0.6) Course ID: 016329
Inter-VLAN Routing
Describes the operation and configuration of routing between subnets in a small network. Helps students configure and troubleshoot routers and switches and resolve common issues. Pre-requisite: (CIT 1672 AND CIT 1673) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1675(0.5) Course ID: 016330
Routing Protocols & RIP
Describes dynamic routing protocols. Covers basic concepts and configuration of RIPv1 and RIPv2. Pre-requisite: CIT 1673 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1676(0.5) Course ID: 016331
OSPF
Describes the operation and basic configuration of single-area OSPF routing in a small network. Pre-requisite: CIT 1675 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1677(0.5) Course ID: 016332
Access Control Lists
Describes standard, extended, and extended access control lists (ACLs), for IPv4 and IPv6 in a small network. Pre-requisite: CIT 161 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1678(0.5) Course ID: 016333
DHCP and NAT
Covers implementation and configuration of DHCP on routers in a small network. Describes the operation and configuration of static NAT, dynamic NAT, and port address translation (PAT). Pre-requisite: CIT 1677 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1701(0.6) Course ID: 007013
Database Concepts
Provides an overview of database and database management system concepts. Pre-requisite: (CIT 105 OR OST 105 OR IMD 100) AND (MAT 085 OR MAT 126) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1702(1) Course ID: 007014
Database Modeling and Design
Provides an overview of database internal design models, normalization, and network data models. Pre-requisite: CIT 1701 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1703(0.8) Course ID: 007015
Database Implementation
Provides an overview of designing a database model and implementation. Introduces Structured Query Language (SQL). Pre-requisite: CIT 1702 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

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CIT 1704(0.6) Course ID: 007016
Database Admin and Management
Provides an overview of optimization strategies and methods including administration, performance tuning, backup, and recovery. Pre-requisite: CIT 1703 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1711(1) Course ID: 016334
Database Creation using SQL
Introduces SQL techniques used in database/table creation. Pre-requisite: CIT 120 AND CIT 170, OR consent of instructor. Lecture 1.0 credits (15 contact hours).
Components: Lecture

CIT 1712(1) Course ID: 016335
Basic Data Retrieval using SQL
Examines SQL techniques for data retrieval and organization. Pre-requisite: CIT 1711. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1713(1) Advanced SQL Techniques
Applies SQL techniques for multiple table queries, functions and subqueries. Pre-requisite: CIT 1712. Lecture: 1 credit (15 contact hours).
Components: Lecture

CIT 1801(0.8) Security Concepts
Introduces basic security concepts and methodologies. Assists in the preparation of the COMPTIA Security+ examination. Pre-requisite: (CIT 105 OR CIT 105) AND (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1802(0.8) Threats and Vulnerabilities
Introduces threats and vulnerabilities in relation to computer and network devices. Pre-requisite: CIT 1801 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1803(0.8) Network Security
Introduces basic network security concepts and methodologies including application, data, and host security, access control, and identity management. Pre-requisite: CIT 1802 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1804(0.6) Cryptography
Introduces cryptography, tools, and management of keys and certificates. Pre-requisite: CIT 1803 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1821(0.8) Security Defense and Protocols
Presents information and skills required to secure computers and networks from attacks. Pre-requisite: CIT 180 OR consent of instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1822(0.8) Firewalls
Presents information and techniques for configuring and using firewalls to secure computers and networks. Pre-requisite: CIT 1821 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1823(0.6) Perimeter Testing
Performs methods and skills for conducting perimeter defense testing against attacks. Pre-requisite: CIT 1822 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1824(0.8) Intrusion Detection
Presents information and techniques for configuring intrusion-detection systems to secure computers and networks. Pre-requisite: CIT 1823 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1841(0.8) Ethical Hacking Concepts
Introduces computer security concepts and ethical hacking. Pre-requisite: CIT 180 OR consent of instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1842(1.0) Computer/Network Attacks
Introduces computer and network attacks. Pre-requisite: CIT 1841 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1843(0.8) Malicious Software and Defense
Examines malicious software and techniques to protect against them. Pre-requisite: CIT 1843 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1844(0.4) Incident Handling
Provides concepts and techniques for incident handling and response. Pre-requisite: CIT 1841 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

CIT 2091(1) Advanced Switching
Describes the operation and configuration of advanced switching technologies in networks, including STP, RSTP, and link aggregation. Pre-requisite: CIT 167 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2092(1) Single- and Multi-area OSPF
Covers advanced single-area OSPF and multi-area OSPF operation and configuration in both IPv4 and IPv6 networks. Pre-requisite: CIT 2091. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2093(1) EIGRP
Covers the operation and configuration of EIGRP in both IPv4 and IPv6 networks. Pre-requisite: CIT 2092 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2094(1) LAN/Wireless Design & IOS
Covers the Cisco model for LAN design, operation and configuration of wireless LANs, and the basics of IOS licensing. Pre-requisite: CIT 2093 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2121(1.2) WANs, PPP, and Frame Relay
Covers WAN technologies and network services used in complex networks, including PPP and Frame Relay. Enables students to understand the selection criteria design principles of WAN technologies to meet networking requirements. Pre-requisite: CIT 209 OR Consent of Instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture

CIT 2122(1.2) Configuring Connections
Covers configuration and troubleshooting of common network access services, including Dynamic Host Configuration Protocol (DHCP) and Network Address Translation (NAT). Pre-requisite: CIT 2121 OR Consent of Instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture

CIT 2123(1) Securing Network Access
Covers network security tools including Access Control Lists (ACL) and Virtual Private Networks (VPN) in a complex network. Enables students to successfully configure network devices to implement security on networks. Pre-requisite: CIT 2092 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2124(0.6) Network Connectivity
Provides concepts and skills for managing network connections, configuring IP settings, and network settings in the current Microsoft Windows operating system. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2131 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2125(1.6) Windows OS Resources
Provides concepts and skills for managing user accounts and access to resources in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2131 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2133(0.6) Windows OS Resources
Provides concepts and skills for managing user accounts and access to resources in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2133 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2134(0.8) Mobility Configurations
Provides concepts and skills for configuring mobility options and security in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2132 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2135(0.6) Monitoring Windows Systems
Provides concepts and skills for managing updates and local performance, monitoring system performance and resource usage, configuring backups, system recovery, and troubleshooting the boot process in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2133 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
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Medical Terminology from Greek and Latin

Latin and Greek roots, prefixes, and suffixes as found in medical terminology. Primarily for pre-medical, pre-dental, pre-nursing, and pre-veterinary students, but others will be admitted for help in vocabulary building.

Components: Lecture
Attributes: Technical

CMM 110(3)  Course ID: 001812
Fundamentals of Machine Tools - A
Provides the basic principles needed for a solid foundation in machine tool technology. Covers shop safety, bench work, drill press, power saw, measurement, and mills. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 112(3)  Course ID: 001813
Fundamentals of Machine Tools - B
Provides the basic principles needed for a solid foundation in machine tool technology. Includes shop safety, bench work, drill press, power saw, measurement, and lathes. Prerequisite: (CMM 110 with a grade of "C" or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 5.0 credits (150 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 114(6)  Course ID: 001814
Fundamentals of Machine Tools
Provides the skills and knowledge that is needed to progress through the machine tool program. Includes safety and bench work. Introduces the basic power equipment and machine tools that are used in the machine trades which include: drill presses, power saws, measurement instruments, mills and lathes. Lecture: 1.0 credits (15 contact hours). Lab: 5.0 credits (150 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 118(2)  Course ID: 001815
Metrology/Control Charts
Provides the basic principles in using precision measurement instruments and their application to inspection and quality control. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CMM 120(3)  Course ID: 001816
Applied Machining I
Consists of intermediate level skills using machining machines and surface grinders. Includes the selection of grinding wheels. Prerequisite: (CMM 110 and 112) or (CMM 114) with a grade of "C" or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 122(3)  Course ID: 001817
Applied Machining II
Carries the student to higher levels in the operation of machine tools. Prerequisite: (CMM 120 with a grade of "C" or greater) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

CMM 124(6)  Course ID: 001818
Applied Machining
Allows the student to begin performing skills that will combine the use of different types of machine and begin to give them a complete picture of the machine tool career. Prerequisite: (CMM 110 and CMM 112) or (CMM 114) with a grade of "C" or greater) or Consent of Instructor. Lecture/ Lab: 6.0 credits (165 contact hours).
Components: Lecture
Attributes: Technical

CMM 130(3)  Course ID: 001819
Manual Programming
Introduces the student to CNC codes and programming, set-up and operation of CNC machine tools. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 132(3)  Course ID: 001820
CAD/CAM/CNC
Introduces the student to CAD/CAM/CNC systems which includes CAM software. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 134(6)  Course ID: 001821
Manual Programming CAD/CAM/CNC
Introduces the student to CAD/CAM/CNC systems, CNC format, the Cartesian Coordinate System, CNC codes and programming, set-up and operation of CNC machine tool. Prerequisite: ((CMM 110 and 112) or CMM 114) with a grade of "C" or greater) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours); Laboratory: 4.0 credits (120 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 138(6)  Course ID: 006234
Intro. to Programming & CNC Machines
Introduces CAD/CAM and CNC equipment. Covers program codes and set up operations used on a variety of machine tools including technologies like waterjet. Prerequisite: ((CMM 110 and CMM 112) or (CMM 114) with a grade of "C" or greater) or Consent of Instructor. Lecture/ Lab: 6.0 credits (150 contact hours) (30:1 Ratio Lab).
Components: Lecture
Attributes: Technical

CMM 150(2)  Course ID: 005089
Shop Theory
Covers shop theory, processes, and basic concepts of machine tool applications utilized in the tool and die field. Includes areas and machine concepts: safety, measurement, layout work, bench work, saws, drills, drilling machines, mills and lathes. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

CMM 151(3)  Course ID: 005090
Machinery's Handbook and Metallurgy
Introduces the Machinery’s Handbook as a reference source for solving manufacturing problems and provides a working knowledge of the principles and concepts contained in the Handbook. Explores processes involved in heat-treating steels to a specific hardness, toughness, wear capability. Covers the identification, classification, application, and processing of Tool Steels. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CMM 152(3)  Course ID: 005091
Jigs, Fixtures and Gaging
Introduces jigs, fixtures and work holding devices, including separate uses and principles. Applies machining processes to design jigs and fixtures. Uses print knowledge to identify part datums for gaging points. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CMM 153(3)  Course ID: 005092
Mold Theory
Provides the skills and knowledge needed to progress through the machine tool program. Includes safety and bench work. Applies knowledge to a tool and die environment. Introduces the basic power equipment and machine tools used in a tool and die shop. Lab: 4.0 credits (120 contact hours).
Components: Laboratory
Attributes: Technical

CMM 154(3)  Course ID: 005093
Die Theory
Provides basic die making including die sets, punch presses, blanking dies, piercing dies, screw and dowell holes, punch and punch blocks, die life, bending dies, pilots, die block construction, stock strippers, stock guides, progressive dies, stock strips and secondary operations of notch, trim, and shave. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CMM 155(2)  Course ID: 005527
Jigs, Fixtures and Gaging Lab
Provides practical experience in construction and application of jigs, fixtures and work holding devices. Includes applying metrology equipment to fixtures in part and stamping evaluation. Prerequisite: CMM 152. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

CMM 160(4)  Course ID: 005355
Basic Bench and Machine Processes
Provides skills and knowledge needed to progress through the machine tool program. Includes safety and bench work. Applies knowledge to a tool and die environment. Introduces the basic power equipment and machine tools used in a tool and die shop. Lab: 4.0 credits (120 contact hours).
Components: Laboratory
Attributes: Technical

CMM 210(3)  Course ID: 001822
Industrial Machining I
Covers the classification of metals, identification of tool steels and their applications. Requires the student to perform advanced milling machine operations that simulate industry standards. Prerequisite: (CMM 122 or 124) with a grade of "C" or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 212(3)  Course ID: 001823
Industrial Machining II
Permits the student to receive instruction in any area where advanced work is needed or an area where there is student interest. Prerequisite: (CMM 210 with a grade of "C" or greater) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

CMM 214(6)  Course ID: 001824
Industrial Machining
Covers the classification of metals, identification of tool steels and their applications. Requires the student to perform advanced milling machine operations that simulate industry standards. Includes special projects in this course so the student will receive instruction in a specific area. Prerequisite: (CMM 122 or CMM 124) with a grade of "C" or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (165 contact hours).
Components: Lecture
Attributes: Technical

CMM 218(8)  Course ID: 005530
Advanced Machining Techniques for Manufacturing
Allows for construction of sinker electrodes in the production of die and mold forms. Includes wire electrodischarge machines (edm) machining of die sections, punch retainers, stripper plates, punch forms and use of cylindrical grinder ID and OD and angular grinding of die and mold components. Prerequisite: CMM 216 with a grade of "C" or greater. Lecture: 2.0 credits (30 contact hours). Laboratory: 6.0 credits (180 contact hours).
Components: Laboratory, Lecture
CMM 220(4)  Course ID: 001825  
Advanced Industrial Machining I  
Allows for construction of electrodes and the production of parts by the use of an Electrical Discharge Machine. (National Standards require EDM and cylindrical grinder training. Colleges lacking this equipment can only present theory only, KCTCS is presently trying to acquire EDM and cylindrical grinders.) Prerequisite: (CMM 130 and CMM 132) or (CMM 134 and CMM 212 or CMM 214) with a grade of “C” or greater) or Consent of Instructor. Laboratory: 4 credits (120 contact hours/30:1 ratio).

Components: Laboratory  
Attributes: Technical

CMM 222(2)  Course ID: 001826  
Advanced Industrial Machining II  
Advances students to a higher level of industrial standards by exposing them to additional tasks using a cylindrical grinder. **National Standards require EDM and cylindrical grinding training. Those programs lacking this equipment can only present theory. KCTCS is presently trying to acquire EDM and cylindrical grinders. Prerequisite: (CMM 134 and CMM 212 or CMM 214) with a grade of “C” or greater) or Consent of Instructor. Laboratory: 2.0 credits (60 contact hours/30:1 ratio).

Components: Laboratory  
Attributes: Technical

CMM 224(6)  Course ID: 001827  
Advanced Industrial Machining  
Designed to allow for the construction of electrodes and the production of parts by the use of an Electric Discharge Machine (EDM), cylindrical grinder. **National Standards require EDM and cylindrical grinding training. Colleges lacking this equipment can only present theory. KCTCS is presently trying to acquire EDM and cylindrical grinders. Prerequisite: (CMM 130 and CMM 212 or CMM 214) with a grade of “C” or greater) or Consent of Instructor. Laboratory: 6.0 credits (180 contact hours or 270 Clinical Contact).

Components: Laboratory  
Attributes: Technical

CMM 230(5)  Course ID: 001828  
Instructor Consent Required  
Conversational Programming  
Introduces the student to conversational programming of CNC machine tools. Prerequisite: Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours).

Components: Lecture  
Attributes: Course Also Offered in Modules, Technical

CMM 234(6)  Course ID: 006244  
CNC Machines & Coding Practices  
Introduces the student to conversational programming of CNC machine tools. Prerequisite: Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours).

Components: Lecture  
Attributes: Technical

CMM 240(6)  Course ID: 001829  
Introduction to 3-D Programming  
Introduces 3-D Programming using CAM systems to effect engineering changes that enhance productivity. Uses CAM system to create and produce complex 3-D parts. Prerequisite: (CMM 130 and CMM 132) or (CMM 134 or CMM 138) with a grade of “C” or greater) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 4.0 credits (120 contact hours or 180 clinical contact).

Components: Lecture  
Attributes: Course Also Offered in Modules, Technical

CMM 244(6)  Course ID: 006245  
Advanced Programming/Setup Practices  
Uses CAM systems to effect engineering changes that enhance productivity to create and produce complex shapes on the CNC mill, lathe, EDM and water jet machines. Prerequisite: (CMM 230 and CMM 2302) or (CMM 230) with a grade of “C” or greater) or consent of instructor. Lecture/Lab: 6.0 credits (150 contact hours).

Components: Lecture  
Attributes: Technical

CMM 298(1)  Course ID: 001830  
Instructor Consent Required  
Practicum  
Provides supervised on-the-job work experience related to the student’s educational objectives. (Students participating in the Practicum do not receive compensation.) Prerequisite: Permission of the Instructor. Practicum: 1.0 credit (75 contact hours).

Components: Practicum  
Attributes: Technical

CMM 299(1)  Course ID: 001831  
Instructor Consent Required  
Cooperative Education Program  
Provides supervised on-the-job work experience related to the student’s educational objectives. (Students participating in the co-op do receive compensation.) Prerequisite: Permission of Instructor. Co-Op: 1.0 credit (75 contact hours).

Components: Co-Op  
Attributes: Technical

CMM 320(3)  Course ID: 005085  
Instructor Consent Required  
Introduction to Conversational Programming  
Introduces students to conversational programming guidelines which will include program preparation, conversational input, and minor editing. Prerequisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Lecture  

CMM 320(3)  Course ID: 005086  
Conversational Editing and Subroutines  
Introduces students to performing editing routines, to subroutines, and to programs that contain loops. Requires students to interpret error messages from the control. Prerequisite: CMM 2301 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Lecture  

CMM 2401(3)  Course ID: 005087  
Introduction to 3D Code Sequencing and Tool Path Production  
Introduces students to creation of 3-D models and allows use of those models to be used in creation of tool paths for CNC machine tools. Prerequisite: (CMM 130 and CMM 132) or (CMM 134 and CMM 138) with a grade of “C” or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Lecture  

CMM 2402(3)  Course ID: 005088  
Advanced 3D Code Sequencing and Macro Systems  
Introduces 3-D Programming using CAM systems to effect engineering changes that enhance productivity. Uses the CAM system to create and produce complex 3-D parts. Prerequisite: (CMM 130 and CMM 132) or (CMM 134 or CMM 138) and (CMM 2401) with a grade of “C” or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Lecture  

CMS 105(3)  Course ID: 000292  
Multimedia Production and Applications I  
Students are introduced to the technologies and applications of multimedia systems including production, presentation, and transmission of video, voice, and data. Lecture: 2 hours. Laboratory: 2 hours.

Components: Laboratory, Lecture  
Attributes: Technical

CMS 120(1)  Course ID: 000293  
Employability Skills Seminar  
This course will focus on those skills necessary for job securement such as self-assessment, resume writing, interview techniques, job search, job marketing strategies, and desired attributes for on-the-job success. Lecture: 1 hour. Offered on a Pass/Fail basis only.

Components: Lecture  
Attributes: Other

COE 198(1 - 9)  Course ID: 005265  
Instructor Consent Required  
Cooperative Education  
Provides a planned and evaluated work experience related to the student’s educational objective for which the student receives both financial remuneration and academic credit. One credit hour is awarded for completion of additional required activities. While the maximum amount of credit granted for cooperative education experience varies by curriculum, the amount may never exceed eight hours in an Associate in Applied Science Degree, diploma or certificate program. This course is available only to students enrolled in Associate in Applied Science Degree, diploma and certificate program that list Cooperative Education as an approved course. Co- op: 1-8 hours. Prerequisite: Completion of at least 12 credit hours in the Associate in Applied Science Degree, diploma or certificate program of study and/or marketable skills in the area in which the student in enrolled, and minimum cumulative grade point average (GPA) of 2.0.

Components: Co-Op  
Attributes: Technical

COE 199(1 - 8)  Course ID: 000309  
Cooperative Education (Associate in Applied Science Degree, Diplomas, and Certificate Programs)  
Cooperative Education is a planned and evaluated work experience related to the student’s educational objective for which the student receives both financial remuneration and academic credit. One credit hour is awarded for completion of additional required activities. While the maximum amount of credit granted for cooperative education experience varies by curriculum, the amount may never exceed eight hours in an Associate in Applied Science Degree, diploma or certificate program. This course is available only to students enrolled in Associate in Applied Science Degree, diploma and certificate program that list Cooperative Education as an approved course. Co- op: 1-8 hours. Prerequisite: Completion of at least 12 credit hours in the Associate in Applied Science Degree, diploma or certificate program of study and/or marketable skills in the area in which the student in enrolled, and minimum cumulative grade point average (GPA) of 2.0.

Components: Co-Op  
Attributes: Other
COED 199(3) Course ID: 001203
Cooperative Education I
Cooperative education is a planned and evaluated work experience related to the students educational objective. The student receives both financial and remuneration and academic credit for this class. One credit hour is awarded for successful completion of 60 hours of approved work experience. Prerequisite/Corequisite: Permission of Instructor
Components: Co-Op
Attributes: Technical

COM Communications

COM 101(3) Course ID: 000310
Introduction to Communications
Introduces the process of communication as a critical element in human interaction and in society. Enhances effective communication and informed use of the mass media. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

COM 181(3) Course ID: 000311
Basic Public Speaking
Applies the basic principles and techniques in research, organization, and delivery of speeches for informative and persuasive speaking purposes. Provides practical platform experience in developing speaking abilities to enable the student to communicate orally in clear, coherent language appropriate to the purpose, occasion, and audience. Prerequisite: Current KCTCS placement scores for college level reading and writing, or consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication, Course Also Offered in Modules

COM 184(1) Course ID: 000313
Intercollegiate Debating
Preparation for and participation in intercollegiate debating. May be repeated to a maximum of two credits.
Components: Lecture
Attributes: Other

COM 205(3) Course ID: 016093
Business and Professional Communication
Provides opportunity to examine and develop oral communication strategies appropriate to business and professional environments. Includes oral presentations, interpersonal communication strategies, interpersonal communication, interviewing, communicating in teams, leadership communication and conflict resolution skills. Does not substitute for COM 181 for Business transfer students. Pre-requisite: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication

COM 249(3) Course ID: 000314
Mass Media Communication
Examines mass media messages, audiences, technologies, and regulations in a global society. Pre-requisite: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: SOC 249
Attributes: SB - Social Behavior Science

COM 252(3) Course ID: 000315
Introduction to Interpersonal Communication
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Requires participation in written and oral activities designed to develop and improve interpersonal skills. Includes perspective-taking, relationship and conversation management, effective listening, conflict management, communication climate, communication anxiety, and cultural/gender differences in interpersonal communication. Pre-requisite Or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication, Course Also Offered in Modules

COM 254(3) Course ID: 004552
Introduction to Intercultural Communication
Introduces intercultural communication with an emphasis on the relationships between culture and communication, social/psychological variables, verbal/nonverbal language systems, intercultural communication perceptions, and conflict resolution. Includes the practical application of contemporary issues in cross-cultural interaction, media representation, and daily social interactions to intercultural communication concepts. Pre-requisite or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

COM 281(3) Course ID: 000316
Communication in Small Group
Examines communication processes in small group situations including conflict, leadership, and decision making. Includes participation in group discussion and the development of skills in analyzing group performance. Pre-requisite or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication

COM 284(1) Course ID: 002198
Intercollegiate Debating
Preparation for and participation in intercollegiate debating. May be repeated to a maximum of four credits.
Components: Lecture
Attributes: Other

COM 287(3) Course ID: 000317
Persuasive Speaking
Examines the processes involved in attitude change, with emphasis on the preparation and delivery of persuasive messages. Prerequisite: COM 181. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication

COM 288(3) Course ID: 000318
Oral Interpretation
Analyzes prose and poetry for oral interpretation. Helpful to those who plan to teach in literature. Pre-requisite Or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

COM 299(3) Course ID: 004257
Special Topics in Communication
A sophomore level study of a selected topic in communication. Prerequisite: COM 181 or COM 252 or consent of instructor. Lecture: 3 hours.
Components: Lecture

COM 301(3) Course ID: 015808
Basic Persuasive Speaking
Provides practical platform experience in developing speaking abilities to enable the student to communicate orally in clear, coherent language appropriate for the presentation of persuasive speeches. Pre-requisite: COM 181. Lecture: 1.0 credit (15.0 contact hours).
Components: Lecture

COM 301(1) Course ID: 016231
Communication Foundations
Demonstrates the role of oral communication in culturally diverse business and professional settings and develops an understanding of self-concept and perception/impression management. Pre-requisite: Current KCTCS placement scores for college level Reading and Writing or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

COM 305(1) Course ID: 016233
Communication In Organizations
Provides experience in communication developing communication skills for use in technology-based job exploration with an emphasis on ethics, interviewing, active listening, and verbal and nonverbal communication for use in culturally diverse business and professional settings. Pre-requisite: COM 2051. Lecture: 1 credit (16 contact hours).
Components: Lecture

COM 325(1) Course ID: 005800
Looking In
Examines basic verbal and nonverbal concepts affecting the interpersonal process. Includes both verbal and nonverbal elements affecting communication between individuals in settings ranging from the family, peer groups, and work contexts. Pre-requisite Or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

COM 325(1) Course ID: 005801
Communicating and Responding
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Topics include both verbal and nonverbal elements affecting communication between individuals in setting ranging from the family, peer groups, and work contexts. Prerequisite: COM 2521. Lecture: 1 credit (15 contact hours).
Components: Lecture

COM 325(1) Course ID: 005802
Looking at Relational Dynamics
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Includes the basic needs in developing interpersonal relationships with emphasis on the types of relationships and the components involved in such relationships including compliance-gaining and conflict resolution. Prerequisite: COM 2522. Lecture: 1 credit (15 contact hours).
Components: Lecture
COS Cosmetology

COS 105(14) Course ID: 005534
Esthetician I
Covers the history of esthetics, today’s career opportunities, and professional image. Includes Kentucky Statutes and Regulations, analysis of skin types for facial products, massage techniques, and hair removal. Provides guidelines that prevent the contamination of products, implements, and equipment for the prevention of disease. Includes the study of structure, composition, and function of the skin. Prerequisite: (High school diploma or equivalent) and admission to esthetician program. Lecture/Lab: 14.0 credit hours (360 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 114(14) Course ID: 001213
Cosmetology I, 6-1
This course is designed to cultivate proper attitude and behavior patterns needed to create a successful Cosmetologist. Kentucky Statutes and regulations, safety, bacteriology, sanitation, infection control, first aid treatment, structure and disorders of the nail are studied. An introduction to the basic fundamentals of hair, skin and nail care, hair styling and shaping, manicures and pedicures, chemical and thermal services, and wigs. The student in developing manipulative skills and practicing procedures utilizes mannequins and classmates. After 300 hours student begin to apply procedures on clients under the direct supervision of the instructor.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 116(14) Course ID: 001214
Cosmetology II, 6-2
A study of basic chemistry with emphasis placed on the physical and chemical properties of cosmetic materials. Electricity and light therapy are discussed and an in-depth study of anatomical structures affected by cosmetological services including disorders of the skin, scalp, hair, and nails. The instructor gives the students progressively more difficult assignments with close supervision.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 135I(1 - 8) Course ID: 001223
Instructor Consent Required
Individual Requirements I
Provides additional lecture/laboratory time to meet licensure requirements of 1800 clock hours. Prerequisite: Consent of Instructor. Lecture: 1.0 - 8.0 credit hours (15 -120 contact hours). Laboratory: 1.0 - 8.0 credit hours (30 - 240 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 150(13) Course ID: 001224
Basic Nail Tech
Provides knowledge of the art and science of nail technology including the rules and regulations of the State Board of Cosmetology as they apply to the salon. Includes bacteriology and infection control through the practice of sanitation procedures, the study of the cells, structure of the hand, arm, nail and their diseases and disorders, and the study of beauty salon management including the practice of interacting with clients, co-workers, and supervisors. (Students practice on classmates and progress to work on clients.) Lecture: 5 credits (75 contact hours). Laboratory: 8 credits (240 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 152(13) Course ID: 001225
Applied Nail Technology
Continues the study of nail technology. Includes a comprehensive written and practical exam in preparation for state board licensure. Prerequisite: COS 150: Lecture: 5 credits (75 contact hours), Laboratory: 8 credits (240 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 205(14) Course ID: 005540
Esthetician II
Covers organic/inorganic chemistry and cosmetic ingredients. Focuses on facial enhancements through the use of make-up artistry and application including hair removal, procedures and applications. Includes the study of skin conditions, disorders and diseases, and those treatable by the esthetician. Explains treatments related to skin and skin disorders. Prerequisite: COS 105 or Consent of Instructor. Lecture/Lab: 14.0 credit hours (360 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 210(13) Course ID: 001233
Student Teaching I
Introduces teaching methods used in training cosmetology and nail technology students. Inclusive of theory, class methods of lecture, media use and testing methods. Introduces methods used to teach the practical application of skills. Prerequisite: Cosmetologist’s License; One year work experience, apprentice cosmetologists instructor’s license. Lecture: 3 credits (45 contact hours), Laboratory: 10 credits (300 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 212(13) Course ID: 001234
Student Teaching II
Expands the apprentice instructor’s ability to apply various methods used to train cosmetology and nail technology students. Prerequisite: COS 210. Lecture: 3 credits (45 contact hours), Laboratory: 10 credits (300 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 214(13) Course ID: 001235
Student Teaching III
Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Hairdressers instructor exam. Prerequisite: COS 212. Lecture: 3 credits (45 contact hours), Laboratory: 10 credits (300 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 216(20) Course ID: 015567
Teaching I
Introduces teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates teaching methods of theory, media use, and testing methods. Develops and applies the methods used to teach the practical application of skills. Pre-requisite: Cosmetologist’s License, one year work experience, and Apprentice Cosmetologists Instructor’s License. Lecture: 6.0 credits (90 contact hours), Lab: 14.0 credits (420 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 217(20) Course ID: 015568
Teaching II
Expands teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates advanced teaching methods of theory, media use, and testing methods. Develops and applies methods used to teach the practical application of skills. Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Hairdressers and Cosmetologist’s instructor examination. Pre-requisite: COS 216. Lecture: 6.0 credits (90 contact hours), Lab: 14.0 contacts (420 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 218(14) Course ID: 001215
Cosmetology III, 6-3
Provides knowledge of the structure and function of the human body, including the interaction of all the body systems in maintaining homeostasis. All phases of beauty salon management are studied, including interacting with clients, co-workers, and supervisors. Laboratory experience is advanced with performance expectations set at a higher level.
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

COS 220(12) Course ID: 001216
Cosmetology IV, 6-4
This course is designed for a total review of the cosmetology curriculum. A comprehensive written and practical exam is given in preparation for the State Board Licensure exam. Students implement their own judgement of procedures and solutions to be used on clients with supervision.
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

COS 235(1 - 8) Course ID: 004413
Instructor Consent Required
Individual Requirements II
Provides additional lecture/laboratory time to meet licensure requirements of 1800 clock hours. Prerequisite: Consent of Instructor. Lecture/Lab: 1.0 - 8.0 credit hours (15 - 120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 275(13) Course ID: 005545
Esthetician III
Covers procedures for business and management, the practice of esthetic setup, sanitation, application techniques, advanced esthetics which include peels, deep pore cleansing, clinical skin care, aroma therapy, and spa body treatments. Includes Kentucky Statutes and Regulations. Provides for the study of the functions and benefits of electrotherapy including pre- and post-operative care for physician treatments and the application of various cosmeceutical products. Prerequisite: (High school diploma or equivalent) and admission to esthetician program. Lecture/Lab: 13.0 credits (315 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 1141(3) Course ID: 004994
Introduction to Cosmetology
An introduction to professionalism and communication. Topics include Kentucky Statutes and Regulations, safety and decontamination. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Lecture

COS 1142(3) Course ID: 004995
Basics of Cosmetology
Provides fundamental principles and skills of manucures, pedicures, facial, and scalp and hair care. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Lecture

COS 1143(3) Course ID: 004996
Principles of Hair Design
Provides design elements and principles of hairstyling. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture

COS 1144(1) Course ID: 004997
Cosmetology Skills A
Focus on developing design elements of hair. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

COS 1145(1) Course ID: 004998
Hair Structure, Disorders and Diseases
Focuses on the structure, diseases, and disorders of hair. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 1146(1) Course ID: 004999
Cosmetology Skills B
Provides basic principles of hair design and safety. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

COS 1147(1) Course ID: 005000
Nail Structure: Diseases and Disorders
Focuses on nail structure, diseases and disorders. Lecture: 1 credit (15 contact hours).
Components: Lecture
COS 1148(1) Course ID: 005001
Skin: Structure, Disorders and Diseases
Focuses on skin structure, diseases and disorders. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 1161(3) Course ID: 005002
Introduction to Cosmetic Chemistry
Basic study of cosmetic chemistry. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture

COS 1162(3) Course ID: 005003
Chemical Services
Basic chemical services. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture

COS 1163(3) Course ID: 005004
Massage Techniques
Study of massage techniques. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture

COS 1164(1) Course ID: 005005
Cosmetic Techniques Lab
Provides an opportunity to apply chemical services. Focuses on perms, color application and straightening of hair. Lecture: 1 credit (45 contact hours).
Components: Laboratory

COS 1165(1) Course ID: 005006
Electricity & Light Therapy for Cosmetology
Study of electricity and light therapy. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 1166(1) Course ID: 005007
Intermediate Hair Design Lab
Continues the application of hair design theory and skills. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

COS 1167(1) Course ID: 005008
Facials
Theory of facials. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 1168(1) Course ID: 005009
Makeup and Hair Removal
Provides the theoretical base for application of makeup. Hair removal principles and techniques. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 2181(3) Course ID: 005010
Anatomy for Cosmetology I
Study of the structures and functions of the human body. Application of these studies in cosmetology services. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture

COS 2182(3) Course ID: 005011
Anatomy for Cosmetology II
Study of the interaction of all body systems and the maintenance of homeostasis. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture

COS 2183(3) Course ID: 005012
Salon Management
The study and application of all phases of salon management. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture

COS 2184(1) Course ID: 005013
Intermediate Chemical Services Lab
The study of the interaction of all the body systems in maintaining homeostasis. Application of these studies in cosmetology services. Prerequisite: (COS 1161 and COS 1162 and COS 1163 and COS 1164 and COS 1165 and COS 1166 and COS 1167 and COS 1168) or COS 116 with a grade of "C" or greater. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

COS 2185(1) Course ID: 005014
Hair Enhancements
Study of artificial hair. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 2186(1) Course ID: 005015
Client Services Lab
Provides the student with the opportunity to demonstrate client services. Emphasis is on communication and positive public relation techniques. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

COS 2187(1) Course ID: 005016
Intermediate Hair Shaping
Hair shaping techniques for the intermediate practitioner. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 2188(1) Course ID: 005017
Cosmetology Trends and Issues
Trends and issues of cosmetology are covered. Lecture: 1 credit (15 contact hours).
Components: Lecture

CPR Cardiopulmonary Resuscitation

CPR 100(1) Course ID: 001239
CPR for Healthcare Professionals
Cardiopulmonary resuscitation (Adult/Infant/Child) is a course designed to teach current emergency techniques relative to cardiac and/or respiratory arrest, as put forth by the American Heart Association, National Safety Council or American Red Cross. The American Heart Association, National Safety Council or American Red Cross standardized course qualifies a student for certification of cardiopulmonary resuscitation.
Components: Lecture Attributes: Technical

CRA Building Controls Technician

CRA 230(5) Course ID: 016091
Building Controls I
Develops techniques for servicing, troubleshooting, and performing necessary maintenance on modern building control system devices. Emphasizes electrical and mechanical safety. Covers equipment used in building control systems. Pre-requisite: ACR 100 and (ACR 102 or comparable electrical course) and 10 semester credit hours of Building Controls Technician technical electives or consent of instructor. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

CRA 232(5) Course ID: 016092
Building Controls II
Develops techniques for configuring, tuning and troubleshooting a networked building control system. Covers networked field equipment and central computer-controlled building control systems. Pre-requisite: CRA 230 or content of instructor. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

CRI 100(3) Course ID: 004191
Introduction to Criminal Justice
Provides an introduction to the philosophical and historical background of agencies of the criminal justice systems, processes, purposes and functions. Includes an evaluation of the criminal justice system today, including trends and career orientation. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 202) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture Attributes: Technical

CRI 101(1) Course ID: 004194
Introduction to Firearms
Provides a working knowledge of the use, care, and safety of firearms. The course is of nomenclature design and it will be at the discretion of each individual college whether live ammunition will be utilized by the students and faculty to demonstrate the firing of weapons and marksmanship practice. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 202) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

CRI 108(4) Course ID: 007357
Advanced Firearms and Less Than Lethal Weapons
Provides an advanced working knowledge of the use, care, safety, and legal application of firearms and less than lethal weapons. Includes live fire with the use of pistol, shotgun, rifle, and less than lethal weapons. Pre-requisite: CRJ 107 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (69 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CRI 110(3) Course ID: 004195
Principles of Asset Protection
Provides an introductory understanding of private security procedures. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 201(3) Course ID: 000899
Introduction to Criminalistics
Provides a basic knowledge of crime scene protection, collection, preservation, and identification of evidence, including proper search, dusting latent prints, casting fingerprint classification, and use of crime laboratory in crime detection and prosecution. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 202(3) Course ID: 004196
Issues and Ethics in Criminal Justice
Provides an understanding of the issues and ethical dilemmas confronting practitioners within the criminal justice system. Prerequisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 203(3) Course ID: 004197
Community Corrections: Probations & Parole
Provides an in-depth study of the history and current processes and procedures of probation, parole, and intermediate sanctions that makes up community corrections. Prerequisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
CRI 204(3)  Course ID: 004198
**Criminal Investigations**
Provides the fundamentals of crime scene investigations, which includes searching and recording of the scene, collection and preservation of physical evidence, interviews and interrogation of victims, witnesses, and suspects, report writing and case preparation. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 208(3)  Course ID: 004199
**Delinquency and the Juvenile Justice System**
Provides an introduction of the origins and theories associated with juvenile delinquency, and a comprehensive analysis of environmental issues that influence delinquency, plus a thorough overview of the juvenile justice system processes. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 210(3)  Course ID: 004200
**Physical Security Technology & Systems**
Introduces facility security with the use of environmental design and integrated electronic technology (cameras, monitors, and alarms). Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 211(3)  Course ID: 004201
**Liability & Legal Issues**
Provides an overview of legal aspects of security, which includes but is not limited to criminal law and civil law, liability of asset protection, use of force, false imprisonment, negligent security, and invasion of privacy. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 215(3)  Course ID: 004202
**Introduction to Law Enforcement**
Provides an introduction to the study of law enforcement. Introduces the historical developments of law enforcement, police operations and programs. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 216(3)  Course ID: 004203
**Criminal Law**
Provides an overview of the definitions and functional components of criminal law in the field of criminal justice. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 217(3)  Course ID: 004204
**Criminal Procedures**
Provides an overview of the different criminal procedural laws by examining the specific Amendments that outline the guideline of the administration of substantive laws. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 218(3)  Course ID: 004193
**Police Supervision**
Provides an overview of the administrative, supervisory, and leadership roles that are required within a law enforcement agency. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) AND CRJ 100 or CRJ 215 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 219(4)  Course ID: 007358
**Police Recruit Defensive Tactics**
Provides the proper methods of police defensive tactics, emphasizes necessary skills, and establishes an understanding of use of force policies and legal implications. Pre-requisite: CRJ 215 and (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 1.0 credit (15 contact hours). Lab: 3.0 credits (91.5 contact hours).
Components: Lecture, Laboratory
Attributes: Technical

CRI 220(3)  Course ID: 005220
**Introduction to Computer Forensics for Criminal Justice**
Introduces the study of cybercrime with an emphasis on planning, detection, and response with the goals of counteract and overcoming hacker attacks and computer-related offenses. Malicious activities will be logged and forensic tools will be used to gather court-admissible evidence. Pre-requisite: Completion of an approved Computer Literacy Course with a grade of "C" or greater, or computer literacy demonstrated by competency exam; AND (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 222(3)  Course ID: 004205
**Prison & Jail Administration**
Introduces the correctional procedures and administration of jails and prisons by focusing on historical and current perspectives of penology, administrative responsibilities of correctional leaders, and correctional staff responsibilities. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 224(4)  Course ID: 007359
**Basic Traffic Collision Investigation**
Introduces basic vehicle collision investigation, from a law enforcement perspective, and entails evidence and investigation techniques and mathematical calculations. Pre-requisite: CRJ 204 and MAT 110 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement for ENC 091 or higher or completion of ENC 090). Lecture: 2.0 credits (60 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CRI 225(4)  Course ID: 007360
**Driving and Traffic Enforcement for Law Enforcement**
Provides an understanding of vehicle offenses, tactical police driving, and traffic stops, in a scenario-based environment that demonstrates applied skills. Pre-requisite: CRJ 215 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 231(3)  Course ID: 006234
**Legal Aspects of Corrections**
Covers research, study, and discussion of current and emerging topics, issues, and trends in corrections. Introduces legal aspects of corrections. Includes a historical perspective, as well as applicable case law, in the areas of corrections operations, practices, and procedures. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 240(3)  Course ID: 006102
**Introduction to Corporate & Industrial Security**
Includes research, study, and discussion of current and emerging topics, issues, and trends in corporate and industrial security. Covers basic corporate and industrial security procedures and the roles of the key personnel within the private security arena. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 245(3)  Course ID: 006232
**Introduction to Business and Industrial Fraud**
Includes research, study, and discussion of current and emerging topics, issues and trends in business and industrial fraud. Covers basic concepts of occupational fraud and abuse and the roles of the key personnel within the criminal justice system. Includes practical procedures for defining, identifying, and investigating business and industrial fraud. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 277(3)  Course ID: 006804
**Introduction to Criminology**
Provides an introduction to the understanding of criminal behavior by focusing on crime trends and patterns, the amount of crime, and the theories of crime. Theories of crime will include the biological, psychological, sociological, and integrated explanations of behavior. Theories of crime will be utilized to address the procedures and administration of criminal justice in society. Pre-requisite: If yes, list: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
CRI 279(3) Course ID: 005781
**Terrorism and Political Violence**
Provides an introduction to the study of terrorism and terrorist organizations. Introduces the student to the diverse definitions of terrorism and the social and political consequences of varying definitions, behavioral aspects of terrorist and the various justifications for terrorist activities. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 290(3) Course ID: 004206
**Internship in Criminal Justice**
Allows the criminal justice student the opportunity to broaden their educational experience through observation and work assignments at a recognized criminal justice agency. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) AND Sophomore Standing and completion of at least 12 semester hours of Criminal Justice work. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 295(1) Course ID: 015650
**Criminal Justice Capstone**
Serves as the capstone course for the Criminal Justice degree program. Integrates prior learning outcomes into a single integrated learning experience. Includes preparation for and completion of the post exit exam that all program graduates must complete. Pre-requisite: (CRIJ 100 and CRIJ 202 and CRIJ 204 and CRIJ 216 and CRJ 217) AND/OR consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CRI 296(3) Course ID: 016629
**Criminal Psychology**
Provides a basic understanding of the psychological theories explaining criminal behavior. Includes topics regarding the effects of the brain’s structural and functional processes on behavior, evidence based psychological techniques for treating criminal behavior, behavioral profiling, basic overview of common mental health problems, ways of recognizing mental health issues when dealing with offenders, and proven psychological techniques for calming problem situations thereby creating a safer and more efficient solution. Pre-requisite: CRJ 100, PSY 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 299(1-3) Course ID: 004207
**Instructor Consent Required**
Selected Topics in Criminal Justice
Introduces specialized topics in the field of criminal justice to meet current trends and investigations of contemporary topics in the discipline. The topics of the course and the number of credit hours determined are at the discretion of the instructor and college providing the course. This course may be repeated a maximum of 6 credit hours. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).
Components: Lecture
Attributes: Technical

CRT 100(2) Course ID: 000928
**Introduction to Collision Repair**
Introduces the student to safety, sanding, grinding, pulling, roughing and filling; the use of tools and equipment; and preparing and priming automotive panels through lectures and demonstration. Lecture: 2.0 (30 contact hours).
Components: Lecture
Attributes: Technical

CRT 130(6) Course ID: 000929
**Non-Structural Analysis and Damage Repair**
Provides instruction in the replacement and alignment of bolts on automotive parts such as doors, hood, and fenders; as well as instruction on the repair and replacement of non-structural weld-on automotive panels by aligning, welding, cutting and drilling through demonstrations and lectures. Includes instruction on how to repair plastic, fiberglass, SMC and flexible automobile parts. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CRT 131(6) Course ID: 002345
**Non-Structural Analysis and Damage Repair Lab**
Provides practical experience in the replacement and alignment of bolts on automotive parts such as doors, hood, and fenders; as well as instruction on the repair and replacement of non-structural weld-on automotive panels by aligning, welding, cutting and drilling. Includes instruction on how to repair plastic, fiberglass, SMC and flexible automobile parts. Requires skills that are most effectively taught and practiced on live work; the exact content will be influenced by the live work available. Pre-requisite Or Co-requisite: CRT 130. Lab: 6.0 credits (180 - 270 contact hours).
Components: Laboratory
Attributes: Technical

CRT 150(6) Course ID: 000931
**Painting and Refinishing**
Provides instruction in the use of lacquer, acrylic enamel and base coat/clear coat refinishing products, masking procedures, preparations and paint problems. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CRT 151(6) Course ID: 000932
**Painting and Refinishing Lab**
Provides instruction in the use of lacquer, acrylic enamel and base coat/clear coat refinishing products, masking procedures, preparations and paint problems. (The auto and/or autos being used for live work will determine exact content.) Pre-requisite Or Co-requisite: CRT 150. Lab: 6.0 credits (180 - 270 contact hours).
Components: Laboratory
Attributes: Technical

CRT 198(1 - 8) Course ID: 000934
**Instructor Consent Required Practicum**
Provides supervised-on-the-job work experience related to the students’ educational objectives. (Students participating in the practicum do not receive compensation. May be taken for 1-8 credit.) Pre-requisite: Consent of Instructor. Practicum: 1.0 - 8.0 credit hours.
Components: Practicum

CRT 199(1 - 8) Course ID: 000933
**Instructor Consent Required Cooperative Education**
Provides supervised-on-the-job work experience related to the students’ educational objectives. (Students participating in the Co-op Education program receive compensation for their work. May be taken for 1 - 8 credits.) Pre-requisite: Consent of Instructor. Co-Op: 1.0 - 8.0 credit hours.
Components: Co-Op
Attributes: Technical

CRT 230(6) Course ID: 000936
**Structural Analysis and Damage Repair**
Presents instruction on the analysis, repair and replacement of structural panels on unibody automobiles and body and frame alignment on unibody and frame cars. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CRT 231(6) Course ID: 000937
**Structural Analysis and Damage Repair Lab**
Provides instruction on the analysis, repair and replacement of structural panels on unibody automobiles and body and frame alignment on unibody and frame cars. Pre-requisite Or Co-requisite: CRT 230. Lab: 6.0 credits (180 - 270 contact hours).
Components: Laboratory
Attributes: Technical

CRT 250(6) Course ID: 000938
**Mechanical and Electrical Components**
Provides instruction in the diagnosis, repair, and/or replacement of suspension, steering, electrical, brake, drive train, fuel, exhaust, and restraint systems. Includes theories and concepts of heating and air conditioning systems. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CRT 251(6) Course ID: 000939
**Mechanical and Electrical Components Lab**
Provides practical experience in the diagnosis, repair, and/or replacement of suspension, steering, electrical, brake, drive train, fuel, exhaust, and restraint systems. Includes demonstration of theories and concepts of heating and air conditioning systems. Involves live work on automobiles. Pre-requisite Or Co-requisite: CRT 250. Lab: 6.0 credits (180 - 270 contact hours).
Components: Laboratory
Attributes: Technical

CRT 291(1) Course ID: 000940
**Special Projects I**
Designed for students to satisfactorily complete collision repair tasks or to enhance their skills in the occupational area. Prerequisite: Consent of Instructor. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

CRT 293(2) Course ID: 000941
**Special Projects II**
Designed for students to satisfactorily complete collision repair tasks or to enhance their skills in the occupational area. Prerequisite: Consent of Instructor. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

CRT 295(3) Course ID: 000942
**Special Projects III**
Designed for students to satisfactorily complete collision repair tasks or to enhance their skills in the occupational area. Prerequisite: Consent of Instructor. Lab: 3.0 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

CRT 298(2) Course ID: 000943
**Instructor Consent Required Advanced Practicum**
Provides supervised-on-the-job work experience related to the students’ educational objectives. (Students participating in the practicum do not receive compensation.) Prerequisite: Consent of Instructor. Independent Study: 2.0 credits (150 contact hours).
Components: Independent Study
Attributes: Technical

CRT 299(2) Course ID: 000944
**Instructor Consent Required Advanced Cooperative Education**
Provides supervised-on-the-job work experience related to the students’ educational objectives. (Students participating in the Co-op Education program receive compensation for their work.) Prerequisite: Consent of Instructor. Co-Op: 2.0 credits (150 contact hours).
Components: Co-Op
Attributes: Technical
CUL 290(4) Course ID: 004223
Front of the House-Catering
Focuses on the operations in front of the house management including service techniques and dining room service, beverage service (non-alcoholic and alcoholic beverages), POS systems, and menu planning. Prerequisite: (CUL 100 and CUL 111 and CUL 200 and CUL 211 and CUL 215 and CUL 240) or consent of the instructor. Lecture/Laboratory: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CUL 295(3) Course ID: 005138
Doing Business as a Personal Chef
A general overview of the business aspects of starting and operating a personal chef service. Prerequisite: All Technical Core Courses as outlined in the current Culinary Arts Curriculum. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CUL 297(1 - 6) Course ID: 004224
Selected Topics in Culinary Arts
Various culinary arts topics, issues, and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; courses may be repeated with different topics to a maximum of six credits. Lecture: varies by topic; Lab: varies by topic. Prerequisite: Consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

CUL 298(2 - 3) Course ID: 004225
Culinary Arts Practicum Experience
Practicum enhances the student’s transition from class to the work of work by providing unpaid work experience in a simulated or on-campus setting that utilizes the skills required to achieve the student’s occupational goal. Prerequisite: Consent of instructor. Practicum: 2.0 - 3.0 credits (120-180 contact hours).
Components: Practicum
Attributes: Technical

CUL 299(2 - 3) Course ID: 004226
Culinary Arts Cooperative Education Experience
Enhances the student’s transition from class to the workplace by providing a paid work experience in a setting that utilizes the skills required to achieve the student’s occupational goal. Prerequisite: Consent of instructor. Practicum: 2.0 -3.0 credits (120-180 contact hours).
Components: Practicum
Attributes: Technical

CUL 301(1) Course ID: 016351
Food and Nutrient Sources
Describes the characteristics, functions, and food sources of the major nutrients. Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 302(1) Course ID: 016352
Menu Planning and Preparation
Describes how to maximize nutrient retention in food preparation and storage. Pre-requisite: CUL 2301. Lecture: 1 credit (15 contact hours)
Components: Lecture

CUL 303(1) Course ID: 016353
Menus for Specialty Diets
Applies the principles of nutrient needs throughout the life cycle through menu planning and preparation for specialty diets. Pre-requisite: CUL 2302. Lecture: 1 credit (15 contact hours)
Components: Lecture

CUL 305(1) Course ID: 016354
Food Service Operating Cost
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the area of cost. Pre-requisite: A mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Lecture: 1 credit (15 contact hours)
Components: Lecture

CUL 306(1) Course ID: 016355
Food Service Control Costs
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the area of control. Pre-requisite: CUL 2801. Lecture: 1 credit (15 contact hours)
Components: Lecture

CUL 307(1) Course ID: 016356
Food Service Financial Aspects
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the areas of purchasing and receiving. Pre-requisite: CUL 2802. Lecture: 1 credit (15 contact hours)
Components: Lecture

DAH Dental Hygiene

DAH 101(2) Course ID: 000330
Infection Control & Medical Emergencies
Examines current regulatory mandates, specific step-by-step procedures related to infection control, management of hazardous materials in the dental office, management of emergency situations and basic concepts of pharmacology. Pre-requisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 1.5 credits (22.5 contact hours). Lab: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAH 121(3) Course ID: 000333
Dental Sciences
Examines oral histology and embryology, head and neck anatomy, and tooth morphology as applicable to the practice of dental assisting and dental hygiene. Prerequisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DAH 124(2) Course ID: 000335
Materials In Dentistry
Examines the physical and chemical properties of dental materials with an emphasis on composition and application. Prerequisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 1.5 credits (22.5 contact hours). Lab: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAH 131(3) Course ID: 004337
Oral Pathology
Introduces the disciplines of general pathology and oral pathology as related to dental auxiliary function. Prerequisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, DAH 125, and DAH 130; Dental Hygiene: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DAH 135(2) Course ID: 000334
Oral Radiology
Examines theory and clinical practice of oral radiographic methods. Presents history and development of x-radiation; properties and uses of x-radiation; radiation hygiene; exposing, processing and mounting of intraoral and extraoral films; and identification of radiographic anatomic landmarks. Prerequisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 1.5 credits (22.5 contact hours). Lab: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAH 235(1) Course ID: 000336
Practice Management
Examines legal, ethical, and managerial aspects of the dental practice. Prerequisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 135, DAH 124, DAH 125 and DAH 130; Dental Hygiene: Minimum grade of “C” in DHG 220 and DHG 226. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DAS Dental Assisting

DAS 125(6) Course ID: 015651
Dental Assisting I
Introduces the profession of dental assisting, history of dentistry, chairside dental assisting, dental equipment, operative dentistry and dental specialties. Emphasizes essential dental assisting skills to prepare the student for clinical setting. Pre-requisite: Admission into the Dental Assisting Integrated program. Lecture: 2.0 (30 contact hours). Lab: 4.0 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAS 130(2) Course ID: 006812
Seminar I
Emphasizes leadership, management, clinical decision-making, judgment skills and professional values to facilitate the transition of the student to a professional dental assistant. Provides the opportunity for the application of critical thinking skills in the care of a diverse patient population in the dental setting. Pre-requisite: Admission into the Dental Assisting Integrated program. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAS 223(2) Course ID: 015652
Dental Assisting II
Continues DAS 120 concepts. Introduces student to remaining dental specialties and expanded dental assisting functions. Pre-requisite: Dental Assisting: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, DAS 125, and DAS 130; Dental Hygiene: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, and DHG 120. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
**DAS 230(1)** Course ID: 006813

Seminar II
Provides the opportunity to discuss clinical experiences and prepare to sit for the Dental Assisting National Board (DANB). Provides students the opportunity to further develop professional growth plan. Pre-requisite: Minimum grade of "C" in DAS 101, DAS 121, DAS 124, DAS 135, DAS 125, and DAS 130. Lecture: 1.0 credit hour (15 contact hours).

Components: Lecture Attributes: Technical

**DAS 245(2)** Course ID: 015653

Preventive Dentistry
Introduces dental biofilm and its role in dental disease. Emphasizes the role nutrition plays regarding disease initiation and progression and the methods and preventive agents utilized by the auxiliary to prevent oral disease. Pre-requisite: Dental Assisting. Minimum grade of C in DAS 101, DAS 121, DAS 124, DAS 135, DAS 125, and DAS 130. Lecture: 1.0 credit (15 contact hours); Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture Attributes: Technical

**DGD 234(3)** Course ID: 005475

3D Animation
Introduces basic techniques to animate 3D characters and objects using constraints, manipulation, pivot point rotation, motion scripting, and motion flow. Prerequisite: DGD 132 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**DGD 235(3)** Course ID: 0007069

3D Special Effects
Introduces digital 3D special effects including the four fundamental elements of air, fire, earth, and water. Pre-requisite: DGD 231 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**DGD 250(5)** Course ID: 015654

Clinical Externship
Apply and practice principles and skills acquired in the areas of chairside assisting, operative procedures, specialty procedures, laboratory procedures, business office procedures and dental radiology. Consists of observation and practice in a dental office setting with emphasis on chairside activities. Pre-requisite: Dental Assisting: Minimum grade of C in DAS 101, DAS 121, DAS 124, DAS 135, DAS 125, and DAS 130. Practicum: 5.0 credits (320 contact hours).

Components: Practicum Attributes: Technical

**DGD 236(3)** Course ID: 0007070

Game Engines I
Introduces students to configuring and using a multipurpose game engine to build 3D games and simulations. Pre-requisite: DGD 132 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**DGD 131(3)** Course ID: 007066

3D Texturing and Lighting I
Introduces the techniques for creating textures and lighting for 3D games and simulations. Pre-requisite: Computer Literacy course or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**DGD 132(3)** Course ID: 005474

Introduction to 3D Graphics
Emphasizes creating 3D graphics using one or more state-of-the-art software packages. Pre-requisite: Computer literacy course or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**DGD 231(3)** Course ID: 007067

3D Texturing and Lighting II
Introduces advanced texturing and lighting techniques to enhance depth perception and realism within 3D environments. Pre-requisite: DGD 131 and DGD 132; or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**DGD 232(3)** Course ID: 005476

3D Character Development
Develop realistic 3D characters with complete body structure. Pre-requisite: DGD 132 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**DGD 233(3)** Course ID: 007068

3D Character Rigging
Introduces basic techniques to rig a digital 3D character with a skeleton that can be manipulated to produce artistic or realistic movement. Pre-requisite: DGD 232 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**DGD 237(3)** Course ID: 0007071

Game Engines II
Use a game engine to build an interactive, 3D graphics-based application that incorporates scripting, collision detection, optimized real-time rendering, and export/ deployment support across multiple platforms. Pre-requisite: DGD 236 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**DHG Dental Hygiene**

**DHG 120(3)** Course ID: 000337

Pre-Clinical Dental Hygiene
Stresses basic assessment and clinical skills, related theory, and professional role and responsibilities of the dental hygienist as a member of the dental health team. Prerequisite: Admission into the Dental Hygiene Integrated Program. Lecture: 2.0 credits (30 contact hours); Lab: 1.0 credit (120 contact hours).

Components: Laboratory, Lecture Attributes: Technical

**DHG 130(3)** Course ID: 000338

Clinical Dental Hygiene I
Focuses on preparing the student to provide patient treatment that includes preventive and therapeutic procedures to maintain oral health and assist the patient in achieving oral health goals. Prerequisite: Minimum grade of C in DHG 101, DAS 101, DAS 121, DAS 135, and DHG 120. Lecture: 1.5 credits (22.5 contact hours); Lab: 0.5 credits (60 contact hours). Clinical: 1.0 credit (120 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Technical

**DHG 132(2)** Course ID: 004331

Pharmacology
Examines the disciplines of pharmacology and therapeutics as related to dental hygiene. Prerequisite: Minimum grade of C in DHG 101, DAS 121, DAS 124, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.0 credit (15 contact hours), Clinical: 2.0 credits (240 contact hours).

Components: Clinical, Lecture Attributes: Technical

**DHG 220(4)** Course ID: 007078

Local Anesthesia and Nitrous Oxide Sedation
Presents a conceptual framework and clinical skills necessary to administer local dental anesthetics and nitrous oxide sedation in accordance with state dental practice acts. Prerequisite: Minimum grade of C in DHG 131, DHG 130, DHG 132, DHG 134, and DHG 136, and current enrollment in the Dental Hygiene Integrated Program. Lecture: 1.0 credit (15 contact hours); Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture Attributes: Technical

**DHG 221(2)** Course ID: 004778

Advanced Periodontology
Focuses on the role of the dental hygienist in the prevention, diagnosis and treatment of periodontal diseases. Prerequisite: Minimum grade of C in DAH 131, DHG 130, DHG 132, DHG 134, and DHG 136. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

**DHG 230(3)** Course ID: 000343

Clinical Dental Hygiene III
Focuses on mastery of dental hygiene clinical skills for patient care and preparation for written and clinical board examinations. Prerequisite: Minimum grade of C in DHG 220 and DHG 226. Lecture: 1.0 credit (15 contact hours), Clinical: 2.0 credits (240 contact hours).

Components: Clinical, Lecture Attributes: Technical

**DHG 231(2)** Course ID: 000344

Community Dental Health Issues
Examines basic concepts in assessing community dental health needs and planning, implementing, evaluating, and presenting dental health programs to various community groups. Prerequisite: Minimum grade of C in DHG 220 and DHG 226. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

**DHP Dental Hygiene**

**DHP 120(4)** Course ID: 004859

Dental Hygiene I
Includes basic assessment and clinical skills, related theory, professional role and responsibilities of the dental hygienist as a member of the dental health team. Prerequisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalency; CPR certification; BIO 137 and BIO 139 or equivalent, with a grade of "C" or better. Lecture: 2.5 credits (37.5 contact hours); Clinical: 1.5 hours (180 contact hours).

Components: Clinical, Lecture Attributes: Technical
DHP 121(3) Course ID: 004860
Oral Biology I
Includes oral histology and embryology, regional head and neck anatomy, and dental anatomy applicable to the practice of dental hygiene. Prerequisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalent; and CPR certification. BIO 137 and BIO 139 or equivalent, with a grade of ‘C’ or better. Lecture: 2.0 credits (30 contact hours); Laboratory: 1.0 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHP 122(2) Course ID: 006832
Dental Nutrition
Presents basic principles of nutrition with emphasis on nutritional counseling in relationship to dental health, determination of patient nutritional status, and application to oral health and effects of nutritional deficiencies. Prerequisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalent; and CPR certification. BIO 137 and BIO 139 or equivalent, with a grade of ‘C’ or better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture

DHP 130(3) Course ID: 004861
Dental Hygiene II
Continues DHP 120 which prepares the student to provide treatment that includes preventative and therapeutic procedures to promote and maintain oral health and assist the patient in achieving oral health goals. Prerequisite: DHP 120 and DHP 121 and DHP 122 and (BIO 226 or equivalent) with a grade of ‘C’ or better. Lecture: 2.0 credits (30 contact hours). Clinical: 1.0 credit (120 contact hours).
Components: Clinical, Lecture
Attributes: Technical

DHP 131(5) Course ID: 004862
Oral Biology II
 Covers the disciplines of general pathology, oral pathology, pharmacology, and therapeutics as related to dental hygiene care. Prerequisite: DHP 120 and DHP 121 and DHP 122 and (BIO 226 or equivalent) with a grade of ‘C’ or better. Lecture: 4.5 credits (67.5 contact hours); Lab: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHP 135(3) Course ID: 004863
Dental Radiology
Presents the theory and clinical practice of oral radiographic techniques. Includes history and development of x-radiation; properties and uses of x-radiation; radiation hygiene; exposing, processing and mounting intracranial and extracranial radiographs; identification of radiographic anatomical landmarks; and advancements in computer imaging technology in dental radiology. Prerequisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalent; and CPR certification. BIO 137 and BIO 139 or equivalent, with a grade of ‘C’ or better. Lecture: 2.5 credits (37.5 contact hours); Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHP 136(2) Course ID: 004864
Periodontics I
Focuses on the clinical, histological and radiographic differences between healthy and unhealthy periodontal tissues. Includes etiology, risk factor assessment, pathogenesis, and classification of periodontal diseases. Prerequisite: DHP 120 and DHP 121 and DHP 122 and (BIO 226 or equivalent) with a grade of ‘C’ or better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHP 136(3) Course ID: 004865
Dental Hygiene III
Focuses on the mastery of all dental hygiene clinical skills utilized in treating all types of patients. Requires the completion and presentation during seminar time of a case study on a clinical patient. Prerequisite: DHP 220 and DHP 222 and DHP 224 and DHP 226 with a grade of ‘C’ or better. Lecture: 2.0 credits (30 contact hours). Discussion: 1.0 credit (15 contact hours).
Components: Clinical, Discussion
Attributes: Technical

DHP 222(3) Course ID: 005040
Special Needs Patients
Focuses on the specific oral health care needs of persons with a variety of medical, disabling or mental conditions and provides information on the management of patients with special oral health care needs. Emphasizes special pharmacological considerations and treatment modifications. Prerequisite: DHP 130 and DHP 131 and DHP 135 and DHP 136 with a grade of ‘C’ or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DHP 224(2) Course ID: 004866
Dental Materials
Introduces the physical and chemical properties of dental materials and their application. Prerequisite: DHP 130 and DHP 131 and DHP 135 and DHP 136 with a grade of ‘C’ or better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DIT 110(2) Course ID: 001274
Introduction To Diesel Engines
Covers fundamental concepts of the operation of two- and four-stroke diesel and gasoline engines. Includes basic engine components and their functions, engine performance terminology, two- and four-stroke operation, combustion principles, and engine disassembly with basic hand tools. Corequisite: DIT 111. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 111(2) Course ID: 001275
Diesel Engine Repair
Includes how to take a disassembled engine and evaluate the condition of each component. Includes the identification and use and function of each component of the engine. Covers cylinder block and components, cylinder heads and valve train components, cylinder heads and valve train components, and engine lubrication systems. Prerequisite: DIT 110 or ADX 150. Corequisite: DIT 113. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 112(3) Course ID: 001276
Diesel Engine Technology
Introduces basic concepts in assessing and surveying community dental health needs. Includes discussion of planning, implementing and evaluating dental health programs, as well as current trends and issues in preventive dental health education. Covers concepts related to reading and interpreting scientific literature. Requires students to develop and present a community dental hygiene program and a scientific tabletop presentation. Prerequisite: DHP 220 and DHP 222 and DHP 224 and DHP 226. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DIT 103(2) Course ID: 001273
Preventive Maintenance Lab
Introduction on preventive maintenance practices, scheduled procedures, documents, and D.O.T. required record system and on determining the needs for repair. Laboratory: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 105(1) Course ID: 006815
Mechanical Principles
Provides opportunities to practice hands on skills of measuring with precision measurement tools such as micrometers, dial indicator and caliper. This class also provides opportunities for the student to practice drilling and tapping. Proper rigging techniques are illustrated and practice to ensure that the student will know how to safely lift large and awkward items. Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

DIT 238(3) Course ID: 004870
Community Dental Health
Introduces basic concepts in assessing and surveying community dental health needs. Includes discussion of planning, implementing and evaluating dental health programs, as well as current trends and issues in preventive dental health education. Covers concepts related to reading and interpreting scientific literature. Requires students to develop and present a community dental hygiene program and a scientific tabletop presentation. Prerequisite: DHP 220 and DHP 222 and DHP 224 and DHP 226. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DIT 239(1 - 4)
Instructor Consent Required
Independent Study in Dental Hygiene
Consists of a special project or experience, approved by an instructor, provides an objective for independent study for dental hygiene technology students. This course may be repeated to a maximum of six credit hours. This is not a dental hygiene program requirement. Prerequisite: Consent of instructor. Lecture: variable. Lab: Variable.
Components: Laboratory, Lecture
Attributes: Technical

DIT 105(1) Course ID: 001273
Preventive Maintenance Lab
Introduction on preventive maintenance practices, scheduled procedures, documents, and D.O.T. required record system and on determining the needs for repair. Laboratory: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 130(3) Course ID: 004869
Principles of Practice
Covers the legal, ethical, and managerial aspects of dental hygiene practice. Prerequisite: DHP 220 and DHP 222 and DHP 224 and DHP 226 with a grade of ‘C’ or better. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical
DIT 113(2) Course ID: 001277
Diesel Engine Repair Lab
Includes the hands-on concepts covered in DIT 112. Covers the inspection, diagnosis and repair strategies of internal combustion late model diesel engines. Pre-requisite: DIT 111 or AOX 151. Corequisite: DIT 112. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 120(3) Course ID: 001278
Introduction to Maintenance Welding
This course provides training in the identification, inspection and maintenance of welding electrodes. Training will be given in the principles and processes of welding plates and pipes. Instruction will be given in lab safety and basic oxy fuel cutting.
Components: Lecture
Attributes: Technical

DIT 121(3) Course ID: 001279
Introduction to Maintenance Welding Lab
Provides laboratory experiences in which students acquire the manipulative skills needed to weld surface, fillet, and groove welds in flat and horizontal positions. The students will perform oxy fuel cutting operations. Lab: 3.0 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

DIT 122(3) Course ID: 001280
Undercarriage
Students learn the theory and operation of undercarriage systems and their components. These components include endless track, roller track, roller frames, idlers, roller supports, and mainframes. Corequisite: DIT 123.
Components: Lecture
Attributes: Technical

DIT 140(3) Course ID: 001282
Hydraulics
Covers the theory and operation of a hydraulic system including pumps, filters, reservoirs, valves and actuators. Corequisite: DIT 141. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 141(2) Course ID: 001283
Hydraulics Lab
Includes the hands-on concepts covered in DIT 140. Covers the inspection, diagnosis and repair strategies of hydraulic systems. Corequisite: DIT 140. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 150(3) Course ID: 001284
Power Trains
Covers the theory and operation of the power train systems on medium and heavy duty trucks. Covers the diagnosis and repair techniques of the power train system. Corequisite: DIT 151. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 151(2) Course ID: 001285
Power Trains Lab
Provides for practical application of concepts taught in DIT 150. Covers topics covered that will include clutches, transmission, and drive axles on medium and heavy duty trucks. Corequisite: DIT 150. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 152(3) Course ID: 001286
Powertrain for Construction Equipment
Students learn the theory and principles of the operation of power transmissions. They learn to diagnose and repair power train units including torque connectors, standard and automatic transmissions.
Components: Lecture
Attributes: Technical

DIT 153(2) Course ID: 001287
Powertrain for Construction Equipment Lab
Students troubleshoot, disassemble, evaluate parts and reassemble components of a power train system, such as torque converters, standard and automatic transmissions, and drive lines.
Components: Laboratory
Attributes: Technical

DIT 160(3) Course ID: 001288
Steering and Suspension
Covers the theory, operation and diagnosis of the steering and suspension system on medium and heavy duty trucks. Corequisite: DIT 161. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 161(2) Course ID: 001289
Steering and Suspension Lab
Provides for practical application of concepts taught in DIT 160. Introduces skills necessary in the diagnosis and repair of truck suspension systems, wheel alignment, and wheel balancing. Pre-requisite: DIT 160. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 180(3) Course ID: 001290
Brakes
Covers the operational theory and application of air brakes, hydraulic brakes and anti-lock brake systems. Covers the function and repair of disc brakes and drums brakes. Corequisite: DIT 181. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 181(2) Course ID: 001291
Brakes Lab
Provides hands-on activities related to the concepts covered in DIT 180. Includes the inspection, diagnosis and performing repairs on air powered and hydraulic powered braking systems found on medium and heavy duty trucks. Corequisite: DIT 180. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 190(3) Course ID: 001292
Electrical Systems for Diesel Equipment
Covers the operation and diagnosis of the truck electrical system including the battery, starter, alternator, lighting and accessories. Corequisite: DIT 191. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 191(2) Course ID: 001293
Electrical Systems for Diesel Equipment Lab
Provides hands-on activities related to the concepts covered in DIT 190. Covers inspection, diagnosis and performing repairs on batteries, starters, alternators and accessory systems found on medium and heavy duty trucks. Corequisite: DIT 190. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 198(1) Course ID: 001297
Instructor Consent Required
Practicum
The Practicum provides supervised on-the-job work experience related to the student's education objectives. Students participating in the Practicum do not receive compensation. Prerequisite: Permission of Instructor.
Components: Practicum
Attributes: Technical

DIT 199(1) Course ID: 001298
Cooperative Education
The cooperative education program provides supervised on-the-job work experience related to the students education objectives. Students participating in the Cooperative Education Program normally receive compensation. Prerequisite: Permission of Instructor.
Components: Co-Op
Attributes: Technical

DLC 100(3) Course ID: 007298
Digital Literacy
Introduces students to main components of digital literacy including computer fundamentals, key applications, and living online. This course closely mirrors the KCTCS Digital Literacy Standards. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DLC 1001(1) Course ID: 007393
Computer Fundamentals
Introduces students to main components of digital literacy regarding Computer Fundamentals. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

DLC 1002(1) Course ID: 007394
Key Applications
Introduces students to main components of digital literacy regarding Key Applications. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

DLC 1003(1) Course ID: 007395
Living Online
Introduces students to main components of digital literacy regarding Living Online. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

DLT 101(2) Course ID: 004871
Dental Morphology
The anatomical characteristics and dental terminology of the permanent human dentition are detailed. Other topics include dento-osseous structures, oral musculature, and the development of teeth. Waxing exercises of selected teeth are performed in the laboratory as a means of understanding tooth form and the development of maxillary dexterity. Prerequisite: Admission into the DLT Program or consent of instructor. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DLT 111(2) Course ID: 004872
Dental Materials I
The major content of this course includes an introduction to the study of dental materials including basic concepts in chemistry. Emphasis is placed on the chemical and physical properties of gypsum, resin, and wax used in dentistry. Basic manipulation of these materials is included in order to prepare the student for future use in the dental laboratory. Prerequisite: Admission into the DLT Program or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical
DMS 105(13) 
**Introduction to Cardiology**

Provides an overview of anatomy and physiology and the electrophysiology of the cardiovascular system. Includes theory and application of the 12-lead electrocardiogram, holter monitor, and stress test. Covers cardiovascular, pharmacology, medical terminology, medical law and ethics, and patient care. Includes Cardiovascular Antegrade Lab, Vascular Sonography, and Respiratory Care.
Prerequisite: Admission to Diagnostic Sonography Program.
Lecture: 10.0 credits (150 contact hours). Clinical: 3.0 credits (180 contact hours).
Components: Clinical, Lecture
Attributes: Technical

DMS 109(7) 
**Course ID: 004392 Department Consent Required**

**Sonography I**

Provides a study of diagnostic foundations of clinical medicine pertinent to abdominal, superficial, musculoskeletal and non-cardiac chest sonography. Includes obtaining the clinical history, interpretation of clinical laboratory tests, the pathophysiological effects of disease, related clinical signs and symptoms, sectional anatomy, and normal/abnormal sonographic patterns. Includes a laboratory component for the practice and application of normal sonographic patterns, basic scanning techniques and protocol. Prerequisite: Admission to Diagnostic Medical Sonography program; Computer Literacy: NAA 100 or equivalent; CPR certification. Lecture: 5.0 credits (75 contact hours). Laboratory: 2.0 credits (90 contact hours) (45:1 Ratio).
Components: Laboratory, Lecture
Attributes: Technical

DMS 111(7) 
**Course ID: 006529**

**Abdominal Sonography**

Provides a study of diagnostic foundations of clinical medicine pertinent to abdominal, superficial, musculoskeletal and non-cardiac chest sonography. Includes obtaining the clinical history, interpretation of clinical laboratory tests, the pathophysiological effects of disease, related clinical signs and symptoms, sectional anatomy, and normal/abnormal sonographic patterns. Includes a laboratory component for the practice and application of normal sonographic patterns, basic scanning techniques and protocol. Prerequisite: Admission to Diagnostic Medical Sonography program; Computer Literacy: NAA 100 or equivalent; CPR certification. Lecture: 5.0 credits (75 contact hours). Laboratory: 2.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMS 112(2) 
**Course ID: 006785**

**Patient Care Concepts in Sonography**

Provides an introduction to patient care in the sonography department, adding to instruction received in required nursing assistant course. Includes information about healthcare settings, professionalism, methods of credentialing, as well as legal and ethical considerations in patient care. Pre-requisite: Admission to DMS program, completion of CPR and terminally, 16 hour nursing assistant course. Lecture: 1.0 credit hour (15 contact hours). Lab: 1.0 credit hour (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMS 115(6) 
**Course ID: 004385**

**Instructor Consent Required**

**Sonography II**

Covers the study of the clinical applications within the sonographic specialties of obstetrics, gynecology, female breast, and neurosonography. Includes related clinical symptoms and laboratory tests, pathophysiologic effects of disease and anomalies, and normal/abnormal sonographic patterns. Includes basic scanning techniques and protocol, with an emphasis on the demonstration of clinical applications of theoretical principles and concepts. Pre-requisite: Admission to Diagnostic Medical Sonography program; Computer Literacy: NAA 100 or equivalent; CPR certification. Lecture: 4.0 credits (60 contact hours). Laboratory: 2.0 credits (90 contact hours) (45:1 Ratio).
Components: Laboratory, Lecture
Attributes: Technical

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DMSDiagnostic Medical Sonographer

Course Descriptions

Dental Materials II
This course emphasizes the metallurgy of dental alloys including the mechanism of crystallization, strain hardening and the chemical process of corrosion. Materials associated with fabricating metal prostheses are studied and include impression materials, cast alloys and wrought alloys. Hazard and infection control procedures in the dental laboratory are presented as well as basic study of applicable physics and unit conversion. Prerequisite: DLT 111 or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

Dental Prosthetics I
The basic principles of crown and bridge fixed prosthetides are presented including the fabrication of both single and multi-unit full metal restorations. Emphasis is placed on preparing and evaluating working casts, waxing anatomical tooth patterns, punching, investing, burnout, casting, and polishing. Additional laboratory procedures include fabricating restorations on various types of articulators, developing functional occlusion, and soldering. Prerequisite: Admission into the DLT Program.
Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

Dental Prosthetics II
The basic principles of metal ceramic fixed prosthetides are presented including the fabrication of both single and multi-unit restorations. Emphasis is placed on esthetic restorations, preparing and evaluating working casts, waxing substructure patterns, snug, investing, burnout, casting, and polishing. Additional laboratory procedures include applying opaque, dentin, and enamel ceramic powders and contouring fired porcelain. Prerequisite: DLT 151.
Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

Complete Dentures I
This course emphasizes the metallurgy of dental alloys including the mechanism of crystallization, strain hardening and the chemical process of corrosion. Materials associated with fabricating metal prostheses are studied and include impression materials, cast alloys and wrought alloys. Hazard and infection control procedures in the dental laboratory are presented as well as basic study of applicable physics and unit conversion. Prerequisite: DLT 111 or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

Complete Dentures II
Advanced principles of complete denture prosthodontics are presented including balanced, monoplane and linguilized occlusion. Emphasis is also placed on the considerations in the oral cavity that effect the success of removable prosthetic treatment. Laboratory procedures include denture repairs, selective grinding and fabricating complete dentures. Prerequisite: DLT 121.
Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

Removable Partial Dentures I
The basic principles of removable partial denture prosthodontics are presented. Emphasis is placed on the fabrication procedures and understanding of the basics of survey and design. Detailed information about the various major and minor connectors is discussed as well as learning the Kennedy Classification system. Laboratory procedures include fabricating two removable partial dentures including the attachment of artificial denture teeth. Prerequisite: Admission into the DLT Program.
Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

Removable Partial Dentures II
Advanced principles of removable partial denture prosthodontics is presented with emphasis on design principles. Detailed information about direct retainers, indirect retainers, rests and bases is discussed. Laboratory procedures involve fabricating three removable partial dentures including the attachment of artificial denture teeth. Prerequisite: DLT 131.
Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

Occlusion
Theories of occlusion; interarch and intraarch relationships; the temporomandibular joint and its movements; articulators, interocclusal records, and face-box transfer; occlusal schemes; and restorative considerations in occlusal therapy are discussed and/or put to practical application in this course. Prerequisite: Admission into the Dental Laboratory Program.
Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (45 contact hours).
Components: Lecture
Attributes: Technical

Fixed Prosthetics I
The basic principles of crown and bridge fixed prosthetides are presented including the fabrication of both single and multi-unit full metal restorations. Emphasis is placed on preparing and evaluating working casts, waxing anatomical tooth patterns, punching, investing, burnout, casting, and polishing. Additional laboratory procedures include fabricating restorations on various types of articulators, developing functional occlusion, and soldering. Prerequisite: Admission into the DLT Program.
Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

Fixed Prosthetics II
The basic principles of metal ceramic fixed prosthetides are presented including the fabrication of both single and multi-unit restorations. Emphasis is placed on esthetic restorations, preparing and evaluating working casts, waxing substructure patterns, snug, investing, burnout, casting, and polishing. Additional laboratory procedures include applying opaque, dentin, and enamel ceramic powders and contouring fired porcelain. Prerequisite: DLT 151.
Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

Applied Laboratory Techniques
Students fabricate a more complex variety of dental prosthesis in four specialty areas: complete denture prosthetides, removable partial denture prosthetides, dental ceramics, and fixed prosthetides (crown and bridge). Curriculum content includes reinforcement of techniques and procedures that are taught in the 100 level DLS courses. Emphasis will be placed on management of laboratory time and project load to improve the quality and quality of laboratory work. Prerequisite: DLT 122, DLT 132, DLT 142, and DLT 152.
Lecture: 2 credits (30 contact hours); Laboratory: 6 credits (270 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

Advanced Specialty Laboratory Techniques
Students fabricate dental prostheses at a more advanced level in at least one of the following specialty areas: complete denture prosthetides, dental ceramics, fixed prosthetides (crown and bridge). Emphasis is placed on incorporating productivity, flow time, and quality requirements. Laboratory experience is provided in the classroom or selected externships in local dental laboratories. Prerequisite: DLT 261.
Lecture: 2 credits (30 contact hours); Laboratory: 6 credits (270 contact hours).
Components: Laboratory, Lecture

Orthodontic Laboratory Techniques
Fixed, removable, active and passive orthodontic appliances are studied in this course. Principles of tooth movement, classifications of malocclusion, orthodontic materials and their manipulation, orthodontic study models, and functional appliances will be discussed. Prerequisite: DLT 212.
Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

Oral Laboratory Management, History & Ethics
Dental laboratory management, business plans, financial planning, history of dentistry and dental technology, and those ethics and laws which are specific to dentistry will be presented. Prerequisite: Completion of all 100 level DLT courses.
Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical
DMS 116(6) Course ID: 006260
OB/GYN Sonography
Covers the study of the clinical applications within the sonographic specialities of obstetrics and gynecology. Includes related clinical symptoms and laboratory test, pathophysiologic effects of disease and abnormalities, and normal/abnormal sonographic patterns. Includes basic scanning techniques and protocol. Designed for the student to utilize the laboratory facilities to demonstrate clinical applications of theoretical principles and concepts. Prerequisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; CPR certification; NAA 100 or equivalent. Lecture/Lab: 6.0 credits (150 contact hours).

Components: Lecture
Attributes: Technical

DMS 117(7) Course ID: 006261
Vascular Sonography I
Provides a study of diagnostic foundations of clinical medicine pertinent to vascular sonography. Includes obtaining the clinical history, interpretation of clinical laboratory test, the pathophysiologic effects of disease, related clinical signs and symptoms, sectional/vascular anatomy, and normal/abnormal sonographic patterns. Includes a laboratory component for the practice and application of normal sonographic patterns, basic scanning techniques and protocol. Prerequisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; NAA 100 or equivalent; CPR certification. Lecture/Lab: 7.0 credits (165 contact hours).

Components: Lecture
Attributes: Technical

DMS 118(6) Course ID: 006262
VascularSonography II
Covers the study of the clinical applications of peripheral venous, peripheral arterial and abdominal vasculature within the sonographic vascular concentration. Includes related clinical symptoms and laboratory test, pathophysiologic effects of disease and abnormalities, and normal/abnormal sonographic patterns. Includes basic scanning techniques and protocol. Designed for the student to utilize the laboratory facilities to demonstrate clinical applications of theoretical principles and concepts. Prerequisite: Admission to Diagnostic Medical Sonography program; Computer Literacy; NAA 100 or equivalent; CPR certification. Lecture/Lab: 6.0 credits (150 contact hours).

Components: Lecture
Attributes: Technical

DMS 119(6) Course ID: 004393 Department Consent Required
Ultrasonic Physics and Instrumentation
Consists of lectures and related laboratory exercises covering the areas of ultrasonic propagation principles, transducer parameters, interactive properties of ultrasound with human tissue, possible biologic effects, basic equipment types, instrumentation and quality control procedures, hemodynamics and basic Doppler. Prerequisite: Consent of Program Coordinator. Lecture: 6.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

DMS 121(6) Course ID: 006263 Department Consent Required
Sonography Physics and Instrumentation
Consists of lectures and related laboratory exercises covering the areas of ultrasonic propagation principles, transducer parameters, interactive properties of ultrasound with human tissue, possible biologic effects, basic equipment types, instrumentation and quality control procedures, hemodynamics, and basic Doppler. Prerequisite: PHY 151 OR PHY 152 OR PHY 171, or higher approved Physics course approved by DMS faculty. Lecture: 6.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

DMS 126(3 - 4) Course ID: 004394
Clinical Education I
Includes observation of all clinical duties performed in the ultrasound lab basic instruction and scans. Includes basic instruction and scanning experience in abdomen, superficial structures, non-cardiac chest, embryo/fetus, gravid and non-gravid pelvic structures with basic competencies to be performed. Prerequisite: Minimum grade of “C” in (DMS 109 and DMS 115) or (DMS 111 and DMS 116). Clinical: 3.0 - 4.0 credits (180 - 240 contact hours).

Components: Clinical
Attributes: Technical

DMS 136(4) Course ID: 006264
Vascular Clinical Education I
Includes observation and practice of all clinical duties performed in the vascular lab with basic instruction and scanning experience under the supervision of a credentialed Vascular Sonographer. Prerequisite: DMS 117 with minimum “C” grade. Clinical: 4.0 credits (240 contact hours).

Components: Clinical
Attributes: Technical

DMS 145(12) Course ID: 005942
Cardiac Sonography I
Covers the identification of structures and the correct technique to obtain images of the heart. Includes the fundamentals of ultrasound physics and instrumentation required to perform echocardiograms. Prerequisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; Minimum grade of “C” in BIO 135 or (BIO 137 and BIO 139) and (PHY 151 or PHY 152 or PHY 171) and MAT 150. Lecture/Lab: 12.0 credits (225 contact hours).

Components: Lecture
Attributes: Technical

DMS 199(1) Course ID: 005936
Online Physics Review
Includes a review of basic ultrasound physics, transducers, bioeffects, artifacts, quality assurance and principles of Doppler techniques. Prerequisite: DMS 119 or 121 with minimum “C” grade or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

DMS 201(1) Course ID: 005937
Online Abdomen Review
Provides a review of abdominal sonography to prepare the student for the related registry. Includes obtaining a clinical history, interpretation of clinical laboratory tests, pathologic basis for disease, related clinical signs and symptoms, sectional anatomy, and normal/abnormal sonographic patterns. Prerequisite: DMS 109 or DMS 111 with minimum “C” grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

DMS 202(1) Course ID: 005938
Online OB/GYN Review
Provides a review of related clinical signs and symptoms, laboratory tests, and normal/abnormal sonographic patterns in preparation for the related Ob/Gyn registry. Prerequisite: DMS 115 or DMS 116 with minimum “C” grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

DMS 204(2) Course ID: 006266 Department Consent Required
Online Vascular Review
Provides a review of vascular sonography to prepare the student for the ARDMS certification examination. Includes activities and quizzes related to cerebrovascular, intracranial, peripheral venous, peripheral arterial and abdominal vascular sonography. Prerequisite: Consent of Program Coordinator. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

DMS 205(6) Course ID: 005943
Cardiac Sonography II
Provides content related to the more advanced cardiovascular diseases. Includes how to correlate Doppler findings and measurements. Covers transesophageal echocardiography, stress echocardiography, Intensive Care Unit patient and Operative/Perioperative applications. Prerequisite: (DMS 145 with a minimum “C” grade) or Consent of Program Coordinator. Lecture/Lab: 6.0 credits (270 contact hours).

Components: Lecture
Attributes: Technical

DMS 206(2) Course ID: 006267
Online Vascular Sonography III
Covers the various test, miscellaneous conditions encountered in vascular sonography. Emphasizes the importance of quality measurements and safety practices. Prerequisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; NAA 100 or equivalent; CPR certification. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

DMS 215(6) Course ID: 005944
Cardiac Sonography III
Covers the basic embryology of the heart, fetal and postnatal circulation, and basic types of congenital heart defects found in the adult. Includes how systemic disease affects the heart and basic clinical problem solving techniques used in echocardiography. Prerequisite: DMS 205 with minimum “C” grade. Lecture/Lab: 6.0 credits (270 contact hours).

Components: Lecture
Attributes: Technical

DMS 217(2) Course ID: 006702
Basic Cardiac Ultrasound Technology
Provides review and practical application of ultrasound and Doppler physics; cardiac anatomy, physiology, and pathophysiology; cardiac imaging: 2D, M-mode, Spectral and Color Doppler, and ejection fraction. Prerequisite: Applicants must be RDSM credentialed or graduate of an accredited sonography program or consent of a sonography program coordinator. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

DMS 230(5 - 8) Course ID: 004396
Clinical Education II
Includes interaction in all clinical duties performed in all ultrasound departments. Covers abdomen, superficial structures, non-cardiac chest, embryo/fetus, and the gravid and non-gravid pelvic structures with performance of basic and advanced competencies to be performed. Prerequisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; Minimum grade of “C” in BIO 135 or (BIO 137 and BIO 139) and (PHY 151 or PHY 152 or PHY 171) and MAT 150. Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).

Components: Clinical
Attributes: Technical

DMS 236(6) Course ID: 006268
Vascular Clinical Education II
Includes experience in clinical applications of cerebrovascular, intracranial, peripheral arterial, peripheral venous, and abdominal vascular sonographic examinations. Requires the performance of competencies with the rate of progress dependent upon the student’s ability to comprehend and perform assignments. Prerequisite: DMS 136 with minimum “C” grade. Clinical: 8.0 credits (480 contact hours).

Components: Clinical
Attributes: Technical

DMS 237(5) Course ID: 006269
Vascular Clinical Education III
Provides a more active clinical role in assisting the practicing vascular Sonographer and performing sonographic duties under direct supervision. Requires the performance of competencies with the rate of progress dependent upon the student’s ability to comprehend and perform assignments. Prerequisite: Minimum “C” grade in DMS 136 and DMS 236. Clinical: 5.0 credits (300 contact hours).

Components: Clinical
Attributes: Technical
DMS 240(5 - 8) Course ID: 004398
Clinical Education III
Continues the clinical experience by student assuming a more active role in assisting the practicing sonographer and performing sonographic duties under direct supervision with the rate of progress dependent upon the student’s ability to comprehend and perform assignments. Prerequisite: DMS 230 with Minimum "C" grade. Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).
Components: Clinical
Attributes: Technical

DMS 245(6) Course ID: 005945
Cardiac Sonography IV
Provides a comprehensive overview of program content with clinical applications. Prerequisite: DMS 145 with minimum "C" grade. Pre-requisite Or Co-requisite: DMS 205 with minimum "C" grade. Lecture/Lab: 6.0 credits (270 contact hours).
Components: Lecture
Attributes: Technical

DMS 255(6) Course ID: 005939
Vascular Technology
Presents normal/abnormal sectional anatomy, hemodynamics, patient assessment and diagnostic testing related to vascular technology. Includes applications of pathophysiologic basis, clinical signs and symptoms and typical findings related to the peripheral vascular system. Includes therapeutic interventions, intraoperative monitoring and the use of contrast agents. Covers vascular physics including blood flow characteristics and pressure/flow/velocity relationships. Prerequisite: Minimum "C" grade in (DMS 119 and DMS 240) or Consent of Program Coordinator. Lecture/Lab: 6.0 credits (120 contact hours).
Components: Clinical
Attributes: Technical

DMS 260(6) Course ID: 005940
Vascular Clinical Education
Provides clinical experience by student actively assisting and performing vascular procedures under direct supervision of a Vascular Technologist. Completes competencies including cerebrovascular, upper/lower venous/arterial extremity, and abdominal vasculature. Prerequisite: DMS 255 with minimum "C" grade. Clinical: 6.0 credits (360 contact hours).
Components: Clinical
Attributes: Technical

DMS 280(3) Course ID: 005335
Basic Vascular Technology
Provides review and practical application of vascular technology (Carotid Duplex Scanning and Peripheral Vascular Scanning) with an analysis of anatomy, physics, hemodynamics, exam protocols, and pathology. Prerequisite: Applicant must be RDMS credentialed or a graduate of an accredited sonography program or Consent of Program Coordinator. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ECEL Electrical and Computer Engineer

ECEL 252(3) Course ID: 005759
Introduction to Electrical Engineering
Reviews electrical quantities, definitions and laws, as applied to DC and AC circuits. Introduces transient and steady-state solutions of linear networks, impedances concepts, the Phasor Transform for AC Analysis, complex AC Power, diode applications, and operational Amplifiers. Discusses electrical safety. Prerequisite: PHY 232, MA 214. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ECO Economics

ECO 101(3) Course ID: 000445
Contemporary Economic Issues
Covers contemporary economic issues such as inflation, poverty and affluence, globalization, and environmental pollution. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 150(3) Course ID: 006703
Introduction to Global Economics
Covers the causes and issues of global economic interdependence, with particular emphasis on cross-cultural implications of globalization. Includes global economic issues such as economic development, global economic governance, changing demographics, health care, world poverty, changing patterns of food production, global energy use, and the economic consequences of global environmental issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

ECO 201(3) Course ID: 000447
Principles of Microeconomics
Covers the allocation of scarce resources from the viewpoint of individual economic units. Topics include supply and demand, elasticity, costs, and markets. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 202(3) Course ID: 000449
Principles of Macroeconomics
Covers how society’s needs are satisfied with the limited resources available. Includes issues such as inflation, unemployment, economic growth, globalization, and fiscal and monetary policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 1011(1)
How Markets Work
Covers the foundations of contemporary economic issues emphasizing scarcity, choice, benefits, costs, and supply and demand. Lecture: 1 credit (15 contact hours).
Components: Lecture

ECO 1012(1)
Markets and Macroeconomic Goals
Covers contemporary economic issues such as price indices, efficiency, equity, poverty and welfare. Prerequisite: ECO 1011. Lecture: 1 credit (15 contact hours).
Components: Lecture

ECO 1013(1)
Markets and Regulation
Covers contemporary economic issues such as externalities, market failure, globalization, and environmental pollution. Prerequisite: ECO 1012. Lecture: 1 credit (15 contact hours).
Components: Lecture

ECO 2011(0.75)
The Role of Economics
Covers the allocation of scarce resources from the viewpoint of individual economic units. Topics include the circular flow of resources in the economy, the production possibilities frontier, and opportunity cost. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

ECO 2012(0.75)
How Markets Work
Covers the allocation of scarce resources from the viewpoint of individual economic units. Includes supply and demand and government intervention in markets. Prerequisite: ECO 2011. Lecture: 0.75 (11.25 contact hours).
Components: Lecture

ECO 2013(0.75)
Markets and Welfare
Covers the allocation of scarce resources from the viewpoint of individual economic units. Includes consumer and producer decision making and the equity and efficiency of markets. Prerequisite: ECO 2012. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

ECO 2014(0.75)
Firm Behavior and Market Structures
Covers the allocation of scarce resources from the viewpoint of individual economic units. Includes competitive and non-competitive markets. Prerequisite: ECO 2013. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

ECO 2021(0.75)
Measuring Macroeconomic Outcomes
Covers how society’s needs are satisfied with the limited resources available. Includes national income accounting, inflation, and unemployment. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

ECO 2022(0.75)
Basic Macroeconomic Relationships
Covers how society’s needs are satisfied with the limited resources available. Topics include the aggregate expenditure model, aggregate supply and aggregate demand. Prerequisite: ECO 2021. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

DPT Additive Manufacturing and 3D Printing

DPT 100(3) Course ID: 015703
Introduction to 3D Printing Technology
Provides an introduction to the world of Three Dimensional printing (3DP) and its applications in conjunction with computer technology. Introduces topics including computer hardware and software, 3D printing technology, file management, the Internet, e-mail, the social web, sustainability, security, and composite and intellectual properly ethics. Presents basic use of application, programming, systems, and utility software. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Digital Literacy, Technical

DPT 102(2) Course ID: 016604
3D Printing Technology Fundamentals
Provides an introduction to the world of three-dimensional (3D) printing or additive manufacturing (AM) and its applications. Introduces topics including 3D printing technologies, basic use of 3D applications, programming, systems, 3D-scanning, and utility software. Pre-requisite or Co-requisite: CIT 105, demonstration of digital literacy competency by exam or certificate, or other approved course with digital literacy status. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DPT 150(3) Course ID: 016605
Introduction to Engineering Mechanics for 3D Printing
Provides an introduction to simplified engineering mechanical principles as they apply to 3D printing, or additive manufacturing, designs and products. Requires students to apply concepts related to simple force and stress analysis, material property selection, and deformation to their designs for the purpose of improving functional performance and overall printing success. Explores finishing and post processing techniques to enhance the final appearance and marketability of their printed work. Pre-requisite: DPT 100 or DPT 102. Lecture/ Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

DPT 200(1) Course ID: 016606
Special Projects for 3D Printing, Level I
Allows the student to gain intermediate level experience in their prospective fields through projects and tasks assigned by the instructor and based on applications the student may display experience as a professional. Focuses on various assignments and curriculum as determined by the program instructor. Pre-requisite: DPT 100 or DPT 102. Lecture/Lab: 1.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DPT 205(2) Course ID: 016607
Advanced Engineering Mechanics for 3D Printing
Builds on the concepts and techniques from DPT 150(3) and 200(1) and presents advanced topics in the field of 3D printing, including design optimization, material selection, and post-processing techniques. Prerequisite: DPT 150(3) and DPT 200(1). Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
EDC 2023(0.75)
Stabilization Tools
Covers how society’s needs are satisfied with the limited resources available. Includes economic growth, fiscal policy, and monetary policy. Prerequisite: ECO 2022.
Components: Lecture: 0.75 credit (11.25 contact hours).

EDC 2042(0.75)
The International Economy
Covers how society’s needs are satisfied with the limited resources available. Includes international trade and international finance. Prerequisite: ECO 2023. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

EDM Education

EDM 270(3)
Course ID: 004041
Teaching and Learning in the Middle Grades
Provides students in middle school education with knowledge and experience critical for instruction of middle school students and management of middle school classrooms. Requires field experience of a minimum of 15 clock hours in instructor-approved education agencies. Prerequisite: EDM 202 and EDM 201. Lecture: 3.0 credits (45 contact hours).
Components: Lecture, Attributes: Technical

EDP Educational and Counseling Psychology

EDP 202(3)
Human Development and Learning
Course ID: 004042
Presents theories and concepts of human development, learning, and motivation and applies them to interpreting and explaining human behavior and interaction in relation to teaching across the developmental span from early childhood to adulthood. Requires field experience of a minimum of 15 clock hours in instructor-approved educational agencies. Prerequisite: EDM 202 with an earned grade of “C” or higher. Lecture: 3 credits (45 contact hours).
Components: Lecture, Attributes: Other

EDP 203(3)
Teaching Exceptional Learners in Regular Classrooms
Course ID: 004043
Introduces the characteristics and instructional needs of exceptional learners with an overview of principles, procedures, methods, and materials for adapting educational programs to accommodate the integration of exceptional children in regular classrooms, when appropriate. Requires field experience of a minimum of 12 clock hours in instructor-approved educational agencies. Prerequisite: EDP 202 with an earned grade of “C” or higher. Lecture: 3 credits (45 contact hours).
Components: Lecture, Attributes: Other

EDP 260(3)
Motivation and Classroom Management
Course ID: 016282
Provides students with a theoretical background of motivation and behavior. Reviews current classroom practices to motivate students and ensure positive classroom behavior. Applies strategies to classroom situations. Teaches basic research methods that apply strategies to classroom situations. Pre-requisite: EDP 202. Lecture: 3.0 credits (45 contact hours).
Components: Lecture, Attributes: Other

EDU Education

EDU 110(3)
Orientation to Education
Course ID: 004045
Introduces the roles and responsibilities of both the paraeducator and the classroom teacher. Covers legal and ethical issues that might be encountered in the classroom, instructional support strategies that might be implemented by paraeducators, universal health and safety procedures, and the importance of communication and teamwork in the instructional environment. Introduces the design of learning environments that encourage active participation in individual and group settings. Requires 10 hours of field work. Lecture: 3.0 credits (45 contact hours).
Components: Lecture, Attributes: Technical

EDU 120(3)
Child and Adolescent Development
Course ID: 004450
Acquaints the student with the cognitive, social, moral, language, emotional, and physical development of children and adolescents. Addresses the application of these theories in the modern classroom. Requires 10 hours of field work. Lecture: 3.0 credits (45 contact hours).
Components: Lecture, Attributes: Technical

EDU 130(3)
Introduction to Behavior Management
Course ID: 004449
Introduces methods on the creation of a learning environment, basic classroom management theories, key principles and practices of special education, and the similarities and differences of individuals with and without exceptional learning needs. Requires 10 hours of field work. Lecture: 3.0 credits (45 contact hours).
Components: Lecture, Attributes: Technical

EDU 140(3)
Introduction to Behavior Management
Course ID: 004448
Introduces the student to strategies of classroom and behavior management that create a positive learning environment encouraging student self-advocacy, increased independence, and improved communication skills. Introduces behavior management strategies that encourage respect and value individual differences among children, youth, and adults and how consequences should be used to motivate positive student behavior. Includes focus on chronic behavior problems. Requires 10 hours of field work. Pre-requisite: ENG 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture, Attributes: Technical

EDU 150(3)
Practical Experiences for the Paraeducator
Provides the capstone experience for the paraeducator certificate. Prerequisite: (EDU 110 and EDU 120 and EDU 130 and EDU 140) or Consent of Coordinator. Lecture: 1.0 credit (15 contact hours); Practicum/Co-op: 2.0 credits (150 contact hours).
Components: Co-Op, Lecture, Practicum, Attributes: Technical

EE Electrical Engineering

EE 211(4)
Circuits I
Course ID: 000045
Fundamental laws, principles and analysis techniques for DC and AC linear circuits whose elements consist of passive and active components used in modern engineering practice including the determination of steady state and transient responses. Prerequisite: MA 114. Prerequisite or concurrent: PHY 232, PHY 242.
Components: Lecture, Attributes: Technical

EES Electronics

EES 101(2)
Basic Electronics
Course ID: 001332
Provides the foundation for further study in technologies related to electricity or electronics. Addresses the following areas: basic electrical components and their properties, quantities, and units of measurement; calculation of voltage, current, resistance, energy, and power using Ohms Law; construction and analysis of series, parallel, and series/parallel circuits; principles of magnetism and electromagnetism; alternating current and voltage; reactive components; construction and analysis of RC, RL, and RLC circuits; sinusoidal and other waveforms. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture, Attributes: Technical

EET Electronics Technology

EET 119(5)
Basic Electricity
Course ID: 015852
Introduces basic electricity concepts applicable to AC and DC circuits pertinent to the electrical technology industry. Provides an in-depth study of Ohm’s Law, series, parallel, and series-parallel circuit characteristics. Focuses on providing students with an overview of common electrical safety practices, AC generation, AC and DC Principles, magnetic principles, transformers, capacitors, inductors, and basic electrical testing equipment along with a focus on the construction, calculation, measurement, and troubleshooting of various AC and DC circuits by way of laboratory exercises and classroom lecture. Pre-requisite: MAT 085 or equivalent placement level or consent of Instructor. Lecture/Lab: 5.0 credits (45-60 contact hours).
Components: Lecture, Attributes: Technical
EET 127(1) Course ID: 015853
Electrical Technology Capstone
Serves as the capstone course for the Electrical Technology degree program and all of its concentrations. Integrates prior learning outcomes into a single integrated learning experience. Includes an exit exam that all program graduates must take. Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

EET 150(2) Course ID: 001355
Transformers
Focuses on the operation, installation and application of AC single-phase and three-phase transformers. Testing and maintaining transformer equipment are emphasized, with safety integrated as a core component of the study. Prerequisite: [(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 151. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

EET 151(1) Course ID: 001356
Transformers Lab
Focuses on the operation, installation and application of AC single-phase and three-phase transformers. Testing and maintaining transformer equipment is emphasized, with safety integrated as a core component of the study. Prerequisite[(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 150. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

EET 154(2) Course ID: 001358
Electrical Construction I
Involves the study of materials and procedures used in construction wiring. Corequisite: EET 155.
Components: Lecture
Attributes: Technical

EET 155(2) Course ID: 001359
Electrical Construction I Lab
Designed to give hands-on experiences with electrical materials and equipment in construction wiring. Corequisite: EET 154. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 198(2) Course ID: 001361
Instructor Consent Required
Practicum
The practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum Education program do not receive compensation for their work. Prerequisite: Consent of Instructor
Components: Practicum
Attributes: Technical

EET 250(4) Course ID: 001410
National Electrical Code
Emphasizes the importance of the National Electrical Code as it applies to electrical installations: electrical safety issues, prevention of fire due to the use of electrical energy, prevention of loss of life and property from the hazards that might arise from the use of electrical energy, and proper selection of electrical equipment for hazardous and non-hazardous environments. A learning resource in the preparation for electrical licensing examinations. Prerequisite: [(EET 154 and EET 155 and EET 252 and EET 253) or (EET 254 and EET 255) with minimum grade of C) or consent of Electrical Technology program advisor(s). Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

EET 252(2) Course ID: 001411
Electrical Construction II
Expands the knowledge and skills needed to work in commercial and industrial construction wiring. Prerequisite: Consent of Instructor or EET 154. Corequisite: EET 253.
Components: Lecture
Attributes: Technical

EET 253(2) Course ID: 001412
Electrical Construction II Lab
Provides hands-on experiences needed to work in commercial and industrial construction wiring. Corequisite: EET 252. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 254(3) Course ID: 001413
Electrical Construction
This course involves the study of materials and procedures and expands the knowledge and skills needed to work in commercial and industrial construction wiring. Corequisite: EET 255. Lecture: 3 credits (945 contact hours).
Components: Lecture
Attributes: Technical

EET 255(4) Course ID: 001414
Electrical Construction Lab
Designed to give hands-on experiences with electrical materials and equipment in commercial and industrial construction wiring. Corequisite: EET 254. Laboratory: 4 credits (120 contact hours).
Components: Laboratory
Attributes: Technical

EET 264(2) Course ID: 001419
Rotating Machinery
Focuses on the principles of rotating electrical equipment including DC and AC motors and generating equipment construction, operating applications, and the maintenance of DC and AC motors and generating equipment. Prerequisite: [ENGT 110 and ENGT 114] with a minimum grade of C] or consent of Electrical Technology program advisor(s). Corequisite: EET 265. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

EET 265(2) Course ID: 001420
Rotating Machinery Lab
Focuses on the principles of operation, application and maintenance of single-phase and three-phase AC motors and AC alternators. DC motors, DC generators. A study of compliance with the National Electrical Code standards. Prerequisite: [(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 264. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 266(3) Course ID: 001421
Rotating Machinery and Transformers
Focuses on the principles of operation and application of single-phase and three-phase AC transformers to include: analysis of voltage, current and power parameters and connection configurations. A study in-depth study of direct and alternating current rotating machinery that produces and utilizes electrical energy. Prerequisite: [(ELT 110 and EET 114) with a minimum grade of C] or consent of Electrical Technology program advisor(s). Corequisite: EET 267. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EET 267(2) Course ID: 001422
Rotating Machinery and Transformers Lab
Applies the principles of operation, application and maintenance of single-phase and three-phase AC transformers, motors and alternators. DC motors and generators. A study of compliance with the current National Electric Code standards will insure safe installation methods. Prerequisite: [(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 266. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

EET 268(3) Course ID: 001423
Instructor Consent Required
Rotating Machinery Electrical Motor Controls I
This course focuses on the construction, operation and maintenance of DC motors and generators and AC motors and alternators. This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lookouts are included. Prerequisite: [(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 269. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EET 269(4) Course ID: 001424
Rotating Machinery and Motor Controls I Lab
Provides practical experience in the use of control devices and their applications in industry today. Provides experience in the construction, operation and maintenance of AC motors and alternators, and DC motors and generators. Safety and electrical lookouts are included. Prerequisite: [(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 268. Laboratory: 4.0 credits (120 contact hours). Lab: 4.0 credits (120 contact hours).
Components: Laboratory
Attributes: Technical

EET 270(2) Course ID: 001425
Electrical Motor Controls I
This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lookouts are included. Prerequisite: [(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 271. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

EET 271(2) Course ID: 001426
Electrical Motor Controls I Lab
Provides practical experience in the use of control devices and their applications in industry today. Safety and electrical lookouts are included. Pre-requisite: [(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 270. Lab: 2.0 credit (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 272(2) Course ID: 001427
Electrical Motor Controls II
This course provides advanced study of motor controls in industry. The course addresses solid state relays, hall effect sensors, proximity detectors and photo detectors. Tasks include sketching, installing and troubleshooting the following three phase controls, variable speed drives using relays as well as solid state devices, and introduction to programmable controls. Prerequisite: EET 270. Corequisite: EET 273.
Components: Lecture
Attributes: Technical

EET 273(2) Course ID: 001428
Electrical Motor Controls II Lab
Provides practical experience in advanced studies in electrical controls used in industry including three-phase motor control and variable speed control using solid state devices and programmable controls. Prerequisite: EET 270. Corequisite: EET 272. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical
EET 274(3)  Course ID: 001429  
**Electrical Motor Controls**  
This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lockouts are also included. This course provides advanced study of motor controls in industry. The course addresses solid state relays, hall effect sensors, proximity detectors and photo detectors. Tasks include sketching, installing and troubleshooting the following: three phase controls, variable speed drives using relays as well as solid state devices, and introduction to programmable controls. Prerequisite: [(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 275. Lecture: 3.0 credits (45 contact hours).  
Components: Laboratory  
Attributes: Technical

EET 275(4)  Course ID: 001430  
**Electrical Motor Controls Lab**  
Provides practical experience in the use of control devices and their applications in industry today. Safety and electrical lockouts are included. Provides hands-on experience in advanced studies in electrical controls used in industry including three-phase motor control and variable speed control using solid state devices and programmable controls. Prerequisite: [(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 274. Lab: 4.0 credits (120 contact hours).  
Components: Laboratory  
Attributes: Technical

EET 276(2)  Course ID: 001431  
**Programmable Logic Controllers**  
Underlying principles and applications of programmable logic controllers including installation, logic fundamentals, and numbering systems; basic programming of inputs, outputs, timers, and counters, comparators, basic data manipulation, and safety circuits of industrial PLCs. Prerequisite: [(ELT 110 or EET 119) with a minimum grade of "C"] and [(EET 270 and EET 272) or EET 268 or EET 274 with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 277. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture  
Attributes: Technical

EET 277(2)  Course ID: 001432  
**Programmable Logic Controllers Lab**  
Provides practical applications of programmable logic controllers including installation, logic fundamentals, and numbering systems; basic programming of inputs, outputs, timers, and counters, comparators, basic data manipulation, and safety circuits of industrial PLCs. Prerequisite: [(ELT 110 or EET 119) with a minimum grade of "C"] and [(EET 270 and EET 272) or EET 268 or EET 274 with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 277. Lab: 2 credits (60 contact hours).  
Components: Laboratory  
Attributes: Technical

EET 285(3)  Course ID: 001437  
**Special Problems III**  
A course designed for the student who has demonstrated specific special needs. Prerequisite: Permission of Instructor  
Components: Laboratory  
Attributes: Technical

EET 286(2)  Course ID: 004627  
**Programmable Logic Controllers II**  
Focuses on sequencer instructions, shift registers, process control instructions, networking, communications, human to machine interfaces, and troubleshooting techniques used with programmable logic controllers. Prerequisite: [(EET 276 and EET 277) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 287. Lecture: 2 credits (30 contact hours).  
Components: Lecture  
Attributes: Technical

EET 287(2)  Course ID: 004628  
**Programmable Logic Controllers II Lab**  
Provides hands-on lab applications dealing with sequencers, shift registers, networks, communication software, human to machine interfaces, analog devices, and troubleshooting. Prerequisite: [(EET 276 and EET 277) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Corequisite: EET 286. Laboratory: 2 credits (60 contact hours).  
Components: Laboratory  
Attributes: Technical

EET 298(1-8)  Course ID: 001438  
**Practicum**  
The Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. (This course may be taken for 1 - 8 credits)  
Components: Practicum  
Attributes: Technical

EET 299(1-8)  Course ID: 001439  
**Instructor Consent Required**  
**Cooperative Education Program**  
Co-op provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Cooperative Education program receive compensation for their work. (This course may be taken for 1 - 8 credits.) Prerequisite: Consent of Instructor  
Components: Co-Op  
Attributes: Technical

EGY 120(4)  Course ID: 006821  
**Outside Plant Communications**  
Introduces students to fiber optic communications systems and up-to-date fiber techniques including how to design, install, and maintain fiber optic single mode networks. Emphasizes Single Mode fiber optic installation with the associated international standards, theory, and practices. Prepares the student to work with fiber optic splicing, testing and troubleshooting equipment that is found in the workplace. Pre-requisite: [(ELT 110 and ETT 110) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

EGR 200(4)  Course ID: 006823  
**Energy Efficiency Controls Lab**  
Designed for Electrical Technology students and Apprentice, Journeymen, Master, and Contractor Electricians as a foundation into the studies of green technology relating to electrical energy. Focuses on the assessment of electrical energy usage in commercial buildings with the understanding that the electrical energy technician will install and maintain efficient electrical controls and equipment. Prepares students to assist in the design of efficient electrical energy systems under the supervision of a Certified Energy Manager or licensed Professional Engineer. Pre-requisite: [(ELT 110 and EET 154 and EET 252 and EET 253 and EET 250) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

EGY 230(4)  Course ID: 006824  
**Solar / Photovoltaic Technologies**  
Covers the design and installation of grid connected, stand-alone, and hybrid photovoltaic (PV) systems, and involves hands-on work with PV systems and equipment. Intended for electrical technology students, apprentices, contractors, electricians, and other practitioners, with an overall goal of developing "system knowledgeable" professionals to help ensure the safety and quality of PV system installations. Pre-requisite: (ELT 110 and EET 154 and EET 155 and EET 252 and EET 253 and EET 250) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

EGY 240(4)  Course ID: 006825  
**Energy Efficiency and Analysis**  
Discusses the basic principles of how energy flows into and out of a residential building, using the “House as a System” approach. Develops the skills needed to perform a home energy audit, gives students hands-on experiences with a blower door, thermal imaging camera as well as other auditing tools. Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

EGY 250(4)  Course ID: 006826  
**Wind/ Turbine Technologies**  
Introduces the theory and practices of wind power and how it is used and connected as a renewable energy source for the home, farm and business. Pre-requisite: ELT110 or consent of instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical
ELT 102(2) Course ID: 000526
Blueprint Reading
A comprehensive study of current drafting standards and blueprint reading techniques are included. Topics include standard lines and symbols, sketching techniques, orthographic projection, auxiliary views, detail and assembly drawings, dimensions, tolerances, sectional views, title block information, machining, specifications, and specialized forms of engineering drawings. Lecture: 2.0 (30 contact hours).
Components: Lecture
Course Equivalents: BRX 120
Attributes: Technical

ELT 103(3) Course ID: 005443
Introduction to Engineering
Provides an introduction to the engineering profession, engineering disciplines, and technology. Emphasizes a problem-solving approach, engineering design process, and team projects. Provides an introduction to engineering graphics. Intended for students of all majors. Prerequisite or Corequisite: Current Placement Scores for College Level Quantitative Reasoning or Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

ELT 105(3) Course ID: 005591
Computer Maintenance Essentials
Introduces basic computer hardware and operating systems, covering skills such as installing, building, upgrading, repairing, configuring, troubleshooting, optimizing, diagnosing and preventive maintenance, with additional elements of soft skills and security. Emphasizes objectives that map closely to the CompTIA A+ Essentials national examination that validates the basic skills needed by any entry-level computer service technician. Prerequisite: Computer literacy or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 106(2) Course ID: 000529
Mechanical Engineering Graphics
Includes basic technical sketching and working drawings as applied to mechanical engineering. Students will create or analyze multi-view drawings, symbols, schematics, and sketches typical of mechanical graphics drawings. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

ELT 107(4) Course ID: 000533
Computer Applications for Technicians
Introduces computer applications commonly used in technical occupations. Covers circuit analysis, computational, analytical, and other software packages. Lecture: 1.0 credit (15 contact hours). Lab: 3 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 110(5) Course ID: 004631
Circuits I
Introduces application of basic DC and AC circuits, including circuit analysis techniques with discussion of introductory magnetism and transformer principles. Emphasizes design, construction, and troubleshooting of simple DC and AC circuits in laboratory exercises. Prerequisite: (MAT 065 or equivalent placement level) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 114(5) Course ID: 004634
Circuits II
Addresses theory and application of complex alternating current and direct current circuits. Emphasizes impedance, reactance, power and electrical energy, electrical measurement instruments, and circuit analysis. Prerequisite: (ELT 110 with a grade of "C" or greater) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 118(3) Course ID: 005566
Computer Numerical Control
Introduces computer numerical control technology, covering programming and metal removal techniques. Includes topics of controllable machine components, tools, programmable functions, control system components, physics of metal cutting, metal cutting data, coordinate systems, NC related dimensioning, and CNC programming. Prerequisite: Consent of Instructor. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 120(3) Course ID: 004637
Digital I
Introduces theory and application of digital logic methods. Includes Boolean algebra, combinational logic theory, sequential circuits, number systems and codes, and design and troubleshooting of digital logic circuits. Prerequisite: (MAT 065 or equivalent placement level) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 122(3) Course ID: 000573
Mechanical Power Transmission Systems
Introduces industrial mechanical systems and devices, which are commonly associated with Millwright and Industrial Maintenance functions. Includes topics of belt drives, gear drives, chain drives, couplings, packings and seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Co-requisite: ELT 124. Lecture: 3.0 credit (45 contact hours).
Components: Lecture
Attributes: Technical

ELT 124(1) Course ID: 000578
Mechanical Power Transmission Systems Lab
Introduces mechanical systems and devices common to the Millwright and Industrial Maintenance trades. Includes topics of belt drives, gear drives, chain drives, couplings, packings and seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Co-requisite: ELT 122. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

ELT 201(4) Course ID: 000603
Statics and Strength of Materials
Introduces statics equilibrium involving forces, moments, couples, and equivalent systems. Explores stresses, strains and deflections associated with trusses, frames, beams, columns, and joints. These devices are subjected to various loadings and environments, and are made of standard construction materials. Prerequisite: (MAT 150 and MAT 155 or MAT 110) or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 210(4) Course ID: 004639
Devices I
Provides basic theory and application of semi-conductor devices. Emphasizes design, construction and troubleshooting of diode and transistor circuits, amplifiers and power supplies. Prerequisite: (ELT 110 with a grade of "C" or greater) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 214(4) Course ID: 004642
Devices II
Covers theory and application of advanced semiconductor devices. Emphasizes thyristors, FETs, integrated circuits, and other devices as applied to audio frequency amplifiers, feedback circuits, modulators, detectors, and other basic electronic circuits. Prerequisite: (ELT 210 with a grade of "C" or greater) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 220(3) Course ID: 004645
Digital II
Provides theory and application of advanced digital logic methods. Includes small and medium scale integrated circuits logic families, interfacing techniques, arithmetic circuits, programmable devices, and an introduction to microprocessors. Prerequisite: (ELT 120 with a grade of "C" or greater) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 222(3) Course ID: 004647
Instructor Consent Required
Mechanics of Telephony
Covers history of the telephone and regulations that impact the telecommunications industry, analog and digital transmission mediums, and the evolution of wireless and digital services. Utilizes the graduated height method for developing climbing skills and confidence. Prerequisite: Consent of Instructor. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 224(3) Course ID: 000623
Software Computer Maintenance
Covers maintenance of the personal computer with an emphasis on installation, upgrading, and configuration of the operating system. Covers memory management, boot sequences, printing subsystem, application software and networking with troubleshooting as a main focal point including viruses. When combined with ELT 234, this course will help prepare students to take CompTIA A+ certification tests. Prerequisite: (Computer literacy course or demonstrate competency) or consent of instructor. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 232(3) Course ID: 000521
Computer Hardware Maintenance
Covers maintenance of the personal computer with an emphasis on installation, upgrading, and configuration of computer hardware. Covers network and Internet access, internal addressing, architecture, interrupts complete PC construction and basic troubleshooting. When combined with ELT 232, this course will help prepare students to take CompTIA A+ certification tests. Prerequisite: (Computer literacy course or demonstrate competency) or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
ELT 240(6) Communications Electronics
Course ID: 004650
Provides the theory of AM and FM, RF communications, transmission, reception, multiplexing, and modern data communications. Prerequisite: (ELT 220 and ELT 214) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 244(4) Electrical Machinery and Controls
Course ID: 000644
Instructor Consent Required
Covers the study of theory and utilization of electrical motors and generators, including AC and DC motors and drives. Includes theory and utilization of limit switches, solenoids, relays, contactors, and solid state devices in control circuits. Provides application of digital and analog control techniques, ladder logic, and programming techniques to industrial and manufacturing processes. Prerequisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours) Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 250(4) Programmable Logic Controllers
Course ID: 000657
Provides a study of Programmable Logic Controllers with an emphasis on the function and use of PLCs in an industrial environment. Prerequisite: ELT 244 or Consent of instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 260(5) Robotic and Industrial Automation
Course ID: 004652
Instructor Consent Required
Introduces theory of robots including terminology, components, and basic programming. Provides theory and application of servo and non-servo robots. Includes robot types, controllers, manipulators, and basic robotic programming. Provides the theory and operation of flexible and computer-integrated manufacturing and control systems. Provides the opportunity to develop, set up work cells, and integrate the work cells into a total computer-integrated manufacturing system at a beginning level. Prerequisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 261(3) Instrumentation and Measurements
Course ID: 000679
Provides a study of instruments used by the mechanical engineering technician and training in the techniques of their use. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ELT 264(4) Mechanical Design
Course ID: 000691
Introduces design methods for basic digital circuits. Covers construction, troubleshooting and testing of logic circuits. Prerequisite: (ELT 1201 with a grade of "C" or better) or Consent of Instructor. Lecture: 0.66 credits (10 contact hours), Lab: 0.33 credits (10 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 289(1) Engineering and Electronics Technology Capstone
Course ID: 006806
Serves as the capstone course for the Engineering and Electronics Technology degree program and all of its concentrations. Integrates prior learning outcomes into a single integrated learning experience. Includes an exit exam that all program graduates must take. Pre-requisite: (ELT 210 and ELT 210) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

ELT 290(1 - 4) Logic Circuit Design
Course ID: 000742
Selected Topics in Engineering Technology: (Topic) Offers selected topics in engineering technology, due to rapidly changing technology or in response to local needs. Includes various topics semester to semester at the discretion of the instructor. Course may be repeated twice or to a maximum of eight credit hours. Prerequisite: Consent of instructor. Lecture: 1.0 credits (15-60); Laboratory: 0.3 credits (0-45).
Components: Laboratory, Lecture
Attributes: Technical

ELT 295(1 - 2)
Course ID: 000746
Instructor Consent Required
Introduction to Logic Design
Provides an objective for independent study for engineering and electronics technology students using a problem or special project approved by the instructor. This course may be repeated twice or to a maximum of four credit hours. Prerequisite: Consent of instructor. Lecture: 1.0 - 2.0 credits (15-30 contact hours), Laboratory: 1.0 - 2.0 (30-60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 1101(1)
Course ID: 005638
Basic Electricity
Introduces basic DC circuits, specifically safety, basic test equipment, electrical resistance and Ohm's Law. Prerequisite: (MAT 065 or equivalent placement level) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1102(1)
Course ID: 005639
Series and Parallel Circuits
Introduces basic DC circuits, specifically series and parallel circuits. Emphasizes design, construction, and troubleshooting of simple DC circuits in laboratory exercises. Prerequisite: (ELT 1101 with a grade of "C" or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours), Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1103(1)
Course ID: 005640
Introductory Circuit Analysis
Introduces basic DC circuits, specifically series-parallel circuit analysis techniques. Emphasizes design, construction, and troubleshooting of simple DC circuits in laboratory exercises. Prerequisite: (ELT 1102 with a grade of "C" or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours), Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1104(1)
Course ID: 005641
Magnetism and Alternating Current
Introduces basic AC circuits, specifically introductory magnetism and basic AC theory. Emphasizes design, construction, and troubleshooting of simple AC circuits in laboratory exercises. Prerequisite: (ELT 1103 with a grade of "C" or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1105(1)
Course ID: 005642
Capacitance and Inductance
Introduces basic AC circuits, specifically capacitance, inductance and transformer principles. Emphasizes design, construction, and troubleshooting of simple AC circuits in laboratory exercises. Prerequisite: (ELT 1104 with a grade of "C" or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours), Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 1201(1)
Course ID: 005648
Instructor Consent Required
Digital Basics
Introduces basic digital circuits, specifically number systems and input output functions of gates and circuits. Prerequisite: Consent of Instructor. Lecture: 0.66 credits (10 contact hours). Lab: 0.34 credits (10 contact hours).
Components: Laboratory, Lecture

ELT 1202(1)
Course ID: 005649
Logic Circuit Design
Introduces design methods for basic digital circuits. Prerequisite: (ELT 1201 with a grade of "C" or better) or Consent of Instructor. Lecture: 0.67 credits (10 contact hours), Lab: 0.33 credits (10 contact hours).
Components: Laboratory, Lecture

EM Engineering Mechanics
Course ID: 000462
Statics
Study of forces on bodies at rest. Vector algebra; study of force systems; equivalent force systems; distributed forces; internal forces; principles of equilibrium; application to trusses, frames and beams; and friction. Prerequisite or concurrent: MA 215.
Components: Lecture
Attributes: Other

EMS Paramedic/Allied Health
Course ID: 007303
Emergency Medical Technician - EMT
Provides the first level of training in the career structure of Emergency Medical Services. Integrates didactic course material and the lab component necessary for the delivery of entry level emergency medical care to individuals who are experiencing a disruption in normal body functions due to illness and/or injury and require intervention to prevent morbidity and mortality. Prepares the student to sit for the National Registry EMT examination that is required for Kentucky certification as an EMT. Focusses on basic anatomy and physiology, scene and patient assessment, airway and ventilation, cardiovascular and body systems support, motion limiting devices, medical and fire management, administration of basic patient medications, extrication, transportation, and patient monitoring as well as medicolegal aspects and ambulance operations. Includes a minimum twenty-four (24) hour clinical observation in the emergency department and/or on a state licensed ambulance service. Pre-requisite: CPR 100 Cardiopulmonary Resuscitation or Current CPR completion.
Components: Lecture
Attributes: Technical

EMS 150(5)
Course ID: 016094
Electrocardiogram Technology
Designed for students wanting to work in doctor's offices, hospitals, cardiac clinics, or anywhere electrocardiograms need to be performed. Integrates comprehensive knowledge of the anatomy of the heart including conduction pathways, circulatory system, and mechanical function. Presents the medical terminology-pathophysiology related to cardiac crisis, arrhythmia recognition and 12-lead interpretation. Pre-requisite: Reading, English, and Mathematics assessment exam scores above KCTCS developmental level or successful completion of the prescribed developmental courses.
Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (45 contact hours), Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical
EMS 200(4) Course ID: 007304
Introduction to Paramedicine
Integrates comprehensive knowledge of EMS Systems including: safety and wellness, communications, medical/legal issues, life span parameters, public health, medical terminology, pathophysiology, anatomy and physiology, medical thinking, and physical assessment and research to improve the health and well-being of individuals. Pre-requisite: EMS 105 or FRS 2061 or current unrestricted state certification or validated National Registry status as EMT eligible and Program Admission. AHS 115 or CLA 131 Or Consent of Instructor. BIO 135 Or Consent of Instructor. Co-requisite: EMS 211. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

EMS 210(3) Course ID: 007305
Emergency Pharmacology
Introduces students to the paramedic's role and responsibilities of medication administration and the basic principles of pharmacology. Presents introductory core concepts of pharmacology including drug regulations, classifications, schedules, categories, delivery systems, calculations, and drug administration. Covers core concepts of emergency clinical pharmacology including major body systems, illness and injury, and methods drugs are used therapeutically to manage affected individuals. Integrates pharmacology with laboratory instruction to reinforce and expand students' understanding. Co-requisite: EMS 200. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EMS 211(2) Course ID: 007306
Fundamentals Lab
Encourages both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets such as patient assessment, airway and ventilation, and IV and fluid therapy. Co-requisite: EMS 200. Lab: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical
EMS 214(6) Course ID: 015876
Paramedic Theory for Registered Nurses (RNs)
Provides the Registered Nurse with specialized knowledge and skills necessary to assess and manage illness and/ or injured patients in the pre-hospital setting. Areas of specialized instruction include: pre-hospital environments, preparatory skills, airway management, patient assessment, trauma and medical patient management, obstetrical/gynecological conditions, pediatric and neonatal care, psychiatric and behavioral emergencies, and special considerations. Pre-requisite: Must be a registered nurse and EMT. Lecture/Lab: 6.0 credits (120 contact hours).
Components: Lecture Attributes: Technical
EMS 215(1) Course ID: 007307
Clinical Experience I
Applies didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital and pre-hospital setting. Includes supervision by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on the ambience and field setting and the emergency department. Pre-requisite: EMS 211. Clinical: 1.0 credit (60 contact hours).
Components: Clinical Attributes: Technical
EMS 220(3) Course ID: 007308
Cardiovascular Emergencies
Provides a detailed study of cardiovascular emergencies and the assessment and management of patients requiring critical intervention. Includes anatomy and physiology, medical terminology, pathophysiology related to cardiac crisis, arrhythmia recognition and 12-lead ECG for field diagnosis, as well as pharmaceutical and electrical interventions. Pre-requisite: EMS 210 and EMS 211. Co-requisite: EMS 221. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EMS 221(1) Course ID: 007309
Cardiac and Trauma Lab
Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets and the addition of cardiovascular and trauma emergency patient care and management. Co-requisite: EMS 220 and EMS 230. Lab: 1.0 credit (45 contact hours).
Components: Laboratory Attributes: Technical
EMS 225(1) Course ID: 007310
Clinical Experience II
Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program with a focus on the emergency department, operating room, and respiratory care. Pre-requisite: EMS 215. Clinical: 1.0 credit (60 contact hours).
Components: Clinical Attributes: Technical
EMS 230(4) Course ID: 007311
Traumatic Emergencies
Presents the advanced concepts of out-of-hospital trauma care and critical thinking activities leading to formulation of a field impression and implementation of an appropriate treatment plan and scene management. Includes the kinematics of trauma, assessment, resuscitation, management, monitoring, and transportation of trauma patients across the life span. Co-requisite: EMS 221. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Technical
EMS 231(1) Course ID: 007312
Medical Lab
Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets with a focus on application to medical emergencies. Co-requisite: EMS 240 and EMS 250. Lab: 1.0 credit (45 contact hours).
Components: Laboratory Attributes: Technical
EMS 235(2) Course ID: 007313
Clinical Experience III
Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on the emergency department, obstetric unit, mental health facility, and pediatric units. Pre-requisite: EMS 225. Clinical: 2.0 credits (120 contact hours).
Components: Clinical Attributes: Technical
EMS 240(3) Course ID: 007314
Medical Emergencies I
Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies involving the respiratory system, nervous system, abdominal and gastrointestinal tracts, genitourinary and renal systems, gynecology, musculoskeletal system, and the eyes, ears, nose, and throat. Co-requisite: EMS 231. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EMS 250(3) Course ID: 007315
Medical Emergencies II
Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies encompassing immunology, infectious disease including HIV/AIDS, the endocrine system, psychiatric conditions, toxicology, and hematology. Pre-requisite: EMS 240. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EMS 260(3) Course ID: 007316
Special Populations
Provides the opportunity to develop special knowledge and skills necessary to assess and manage ill and/or injured patients across the human life span. Focuses on the acquisition of clinical knowledge and skills in diverse populations that include obstetrics, neonatology, pediatrics, geriatrics, and special challenge topics. Pre-requisite: EMS 250. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EMS 270(1) Course ID: 007317
EMS Operations
Provides knowledge necessary to safely manage multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism and disaster. Lecture: 1.0 credits (15 contact hours).
Components: Lecture Attributes: Technical
EMS 275(1) Course ID: 007318
Seminar in Advanced Life Support (ALS)
Provides a comprehensive course encompassing advanced cardiac life support and pediatric advanced life support, or trauma life support, or other seminar course in relative subject matter such as medical emergencies or geriatric emergencies, to enhance the knowledge and skills acquired in the paramedic program. Addresses immediate life threatening conditions and critical interventions in a case study/scenario format where principles of assessment and intervention are applied in a team setting. Pre-requisite: EMS 225. Lab: 1.0 credit (45 contact hours).
Components: Laboratory Attributes: Technical
EMS 285(5 - 6) Course ID: 007319
Field Internship & Summation
Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite or Co-requisite: EMS 275. Lab: 1.0 credit (45 contact hours). Practicum: 4.0 - 5.0 credits (360- 450 contact hours).
Components: Laboratory, Practicum Attributes: Technical
EMS 2851(3) Course ID: 016630
Field Internship I
Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite OR Co-requisite: EMS 275. Practicum: 3.0 credits (270 contact hours).
Components: Practicum
EMS 2852(2 - 3) Course ID: 016631
Field Internship II
Provides the opportunity for continued application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite OR Co-requisite: EMS 2851. Laboratory: 1.0 credit (45 contact hours). Practicum 2.0 credits (180 contact hours).
Components: Laboratory, Practicum
ENC English Composition

ENC 090(3) Course ID: 000464

Foundations of College Writing I
Introduces students to writing as a process with an emphasis on paragraph-length assignments and writing in response to reading. Stresses basic conventions of standard English as they apply to students' own work as well as the use of technology to produce and share writing. Prerequisite: Placement by KCTCS Assessment and Placement policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English, Course Also Offered in Modules

ENC 091(3) Course ID: 000465

Foundations of College Writing II
Applies writing as a process with instruction in intermediate writing skills and technology. Stresses organization, idea development through critical thinking, and editorial improvement through multi-paragraph writings. Introduces basic research and documentation through writing in response to reading. Prerequisite: Placement by KCTCS Assessment and Placement policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English, Course Also Offered in Modules

ENC 096(4) Course ID: 016247

Introduction to College Writing
Introduces and applies writing as a process, beginning with basic writing skills and paragraph length assignments and moving toward intermediate writing skills and multi-paragraph assignments. Stresses application of basic conventions of standard English. Emphasizes organization, topic development through critical thinking, editorial improvement through systematic revision, and the use of technology to produce and share writing. Introduces basic research and documentation through writing in response to reading. Prerequisite: COMPASS Score in Writing: 26-48 or ACT score: 12-14. Lecture: 4 credits (60 contact hours)
Components: Lecture
Attributes: Remedial - English

ENC 0901(1) Course ID: 006746

Sentence Basics
Introduces the basic conventions of standard English as these apply to students' own writing. Prerequisite: As determined by KCTCS Placement Policy. Lecture: 1.0 credit (15 contact hours)
Components: Lecture
Attributes: Remedial - English

ENC 0902(0.25) Course ID: 006747

Writing With Computers
Introduces the use of technology to produce and share writing. Prerequisite: As determined by KCTCS Placement Policy or successful completion of ENC 0901. Lecture: 0.25 credits (3.75 contact hours)
Components: Lecture
Attributes: Remedial - English

ENC 0903(0.75) Course ID: 006748

Writing Paragraphs
Introduces the writing process with an emphasis on paragraph-length assignments. Prerequisite: As determined by KCTCS Placement Policy or successful completion of ENC 0902. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Remedial - English

ENC 0904(1) Course ID: 006749

Pathway to Writing
Provides practice in the writing process and stresses effective paragraphs with emphasis placed on writing in response to reading. Prerequisite: As determined by KCTCS Placement Policy or successful completion of ENC 0903. Lecture: 1.0 credit (15 contact hours)
Components: Lecture
Attributes: Remedial - English

ENC 0911(0.75) Course ID: 006750

Intermediate Grammar
Introduces intermediate writing skills and editorial improvement, stressing the conventions of standard written English. Prerequisite: As determined by KCTCS Placement Policy or successful completion of ENC 090. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - English

ENC 0912(1) Course ID: 006751

Composition Strategies
Provides practice in the writing process, stressing organization, idea development, and editorial improvement. Prerequisite: As determined by KCTCS Placement Policy or successful completion of ENC 091. Lecture: 1 credit (15 contact hours)
Components: Lecture
Attributes: Remedial - English

ENC 0913(0.25) Course ID: 006752

Introduction to Research
Introduces basic research and documentation through writing in response to reading. Prerequisite: As determined by KCTCS Placement Policy or successful completion of ENC 0912. Lecture: .25 credits (3.75 contact hours)
Components: Lecture
Attributes: Remedial - English

ENC 0914(1) Course ID: 006753

Writing as Process
Provides practice in the writing process, stressing organization, idea development, and editorial improvement. Prerequisite: As determined by KCTCS Placement Policy or successful completion of ENC 0913. Lecture: 1.0 credit (15 contact hours)
Components: Lecture
Attributes: Remedial - English

ENG English

ENG 100(2) Course ID: 004574

English Workshop
Provides parallel and supplemental review of English skills needed for students with an English ACT of 18 or 19 or a Compass placement test score between 70-80 who are also enrolled in ENG 101. If these students withdraw from ENG 100, they must also withdraw from ENG 101. Credit cannot be received by special exam. Lecture: 2 credits (30 contact hours). Prerequisite: ACT score of 18 or 19 with a Compass placement score of 70-80. Corequisite: Enrollment in ENG 101.
Components: Lecture
Attributes: Other

ENG 101(3) Course ID: 000467

Writing I
Focuses on academic writing. Provides instruction in drafting and revising essays that express ideas in Standard English, including reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Includes review of grammar, mechanics and usage, Notes: (a) credit not available by special examination; (b) English 101 and 102 may not be taken concurrently; (c) AP credit in the English Language and Composition category for ENG 101 awarded as indicated by AP scoring chart in current KCTCS catalog. Prerequisite: Appropriate writing placement score or ENC 091. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: WC - Written Communication, Course Also Offered in Modules

ENG 102(3) Course ID: 000468

Writing II
Emphasizes argumentative writing. Provides further instruction in drafting and systematically revising essays that express ideas in Standard English. Includes continued instruction and practice in reading critically, thinking logically, responding to texts, addressing specific audiences, and researching and documenting credible academic sources. NOTE: Credit is not available by special examination. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: WC - Written Communication, Course Also Offered in Modules

ENG 105(3) Course ID: 000469

Instructor Consent Required
Writing: An Accelerated Course
Combines the content of ENG 101 and ENG 102 in an intensive course emphasizing argumentation and library research and fulfills the writing/accessing information requirement. Prerequisite: ACT English score of 25 or COMPASS English score of 95 AND ACT Reading score of 20 or COMPASS reading score of 90. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: WC - Written Communication

ENG 107(3) Course ID: 016136

Writing Craft: Introduction to Imaginative Writing
An introduction to the genres and craft of imaginative writing, including fiction, nonfiction, and poetry. Students will study and practice writing in various modes through composition, peer critique, and research. Lecture and workshop. Offers credit for the UK Core requirement in Intellectual Inquiry in Arts & Creativity. Fulfills ENG pre-major requirement and provides ENG minor credit. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: University Course (University of Kentucky)

ENG 135(3) Course ID: 000275

Greek and Roman Mythology in Translation
Examines mythic literature, primarily Greek and Roman texts. Includes selections from primary works such as Works and Days, The Iliad, The Odyssey, Greek tragedy, The Metamorphoses and The Aeneid, with attention to their influence on later literature and culture. Prerequisite: English ACT 18 and Reading ACT 20 OR completion of transitional reading and writing. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ENG 161(3) Course ID: 000470

Introduction to Literature
Introduces students to an analytical rather than historical approach to literature in order to deepen students' insight into the nature and purpose of literature. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 203(3) Course ID: 000472

Business Writing
Provides instruction and experience in writing for business, industry and government. Emphasizes clarity, conciseness, and effectiveness in preparing letters, memos, and reports for specific audiences. Prerequisite: [ENG 101 and (ENG 102 or Consent of Instructor)] or ENG 105. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Other, Course Also Offered in Modules

ENG 204(3) Course ID: 000474

Technical Writing
Provides instruction and experience in writing for science and technology. Emphasizes clarity, conciseness, and effectiveness in preparing instructions, proposals, and lab reports for specific audiences. Lecture: 3 credits (45 contact hours). Prerequisite: [ENG 101 and (ENG 102 or Consent of Instructor)] or ENG 105
Components: Lecture
Attributes: Other
ENG 207(3)  Course ID: 000477
Instructor Consent Required
Creative Writing: (Subtitle Required)
Provides instruction for beginners in the craft of writing, teaching students how to revise work in progress. Involves practice in aspects of craft and promotes experimentation with different forms, subjects, and approaches; outside reading provides models and inspiration. May be repeated under different subtitles to a maximum of six credit hours. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

ENG 208(3)  Course ID: 006704
Creative Writing: Short Story Workshop
Provides students with guidance in the craft of writing short fiction, how to read critically and how to revise work in progress. Includes practice and experimentation with forms, subjects, and approaches to short stories. Outside reading provides models and inspiration. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

ENG 221(3)  Course ID: 000479
Survey of English Literature I
Acquaints students with significant texts in English literature from the Middle Ages to the early 17th Century. Focuses on the literature in its social, political, and cultural contexts. Lecture: 3 credits (45 contact hours). Prerequisite: ENG 101.
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 222(3)  Course ID: 000481
Survey of English Literature II
Covers the late 17th Century through the present with emphasis on important writers and cultural backgrounds. Focuses on social, political, and cultural contexts. Lecture: 3 credits (45 contact hours). Prerequisite: ENG 101.
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 230(3)  Course ID: 004530
Literature and Theme (subtitle required)
Introduces students to close reading and argumentative writing about literature, in relation to a significant theme. Examines selected texts revolving around a single theme, teaching students how to relate texts to contexts, to read closely, and to use basic literary terms and concepts. Considers student writing, particularly depicting a thesis, crafting an argument, and learning how to use supporting evidence. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 231(3)  Course ID: 004902
Literature and Genre (Subtitle required)
Explores one or two different literary forms or genres, i.e. the formal categories into which literary works are placed, including the conventions of each genre and related sub-genres. Considers student writing. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 232(3)  Course ID: 004903
Literature and Place (Subtitle required)
Explores a number of selected literary texts with special attention to the author's connection to place and how the author's sense of place influences representations of experience. Considers student writing. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 233(3)  Course ID: 004904
Literature and Identities (Subtitle required)
Explores a number of selected literary texts, with special attention to the construction of personal, ethnic, racial, or national identity and considers how race, class, sexuality, and/or nationality influence representations of experience. Includes attention to student writing. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ENG 234(3)  Course ID: 004905
Introduction to Women's Literature
Introduces students to the rich body of women's writing. Explores common and differing themes, attitudes, cultural norms, and gender identity evident in multiethnic, diverse societies through analysis and discussion of texts by women writers. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 251(3)  Course ID: 000483
Survey of American Literature I
An analysis of significant texts in U.S. literature from the Colonial era to the Civil War focusing on social, political, and cultural contexts. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 252(3)  Course ID: 000485
Survey of American Literature II
An analysis of significant texts in U.S. literature from the post-Civil War era to the present focusing on its social, political, and cultural contexts. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 259(3)  Course ID: 000487
Survey of Western Literature from the Greeks Through the Renaissance
Studies the works of major Western authors from the Bible and Ancient Greek literature through the Renaissance. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 260(3)  Course ID: 000489
Survey of Western Literature from 1660 to the Present
Studies the works by major Western authors from mid-17th century to the present. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 261(3)  Course ID: 000490
Survey of American Literature from 1860 to the Present
Studies the works by major Western authors from mid-19th century to the present. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 262(3)  Course ID: 000491
Major Black Writers
Provides a cross-cultural and historical approach to written and oral works by major Black authors of Africa, the Caribbean, and the United States. Includes writers such as Chinua Achebe (Africa), Wilson Harris (Caribbean), and Toni Morrison (USA). Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 270(3)  Course ID: 000491
The Old Testament as Literature
Surveys the major types of Old Testament literature in English translation. Examines historical backgrounds while emphasizing careful analysis of literary forms and techniques. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ENG 271(3)  Course ID: 000493
The New Testament as Literature
Surveys the major types of New Testament literature in English translation as a means of planning, drafting and revising essays that express thoroughly developed ideas in Standard English. Prerequisite: ACT score of 18, COMPASS score of 70 or ENC 091. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
Attributes: Other

ENG 281(3)  Course ID: 000495
Introduction to Film
Introduces the study of movies as a narrative art and a cultural document. Requires viewing of films outside of class. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: HUM 281
Attributes: AH - Arts and Humanities

ENG 282(3)  Course ID: 005429
International Film Studies
Examines selected topics in English. Includes, but not limited to, individual authors, specified genres, and defined eras. Prerequisite: ENG 101 or consent of instructor. Lecture: 1 - 3 credits (15-45 contact hours).
Components: Lecture
Course Equivalents: HUM 282
Attributes: Cultural Studies, AH - Arts and Humanities

ENG 299(1 - 3)  Course ID: 005345
Special Topics in English
Attributes: Other

ENG 1011(0.75)  Course ID: 005787
Writing a Personal Essay
Focuses on academic writing. Provides instruction in reading critically, thinking logically, and responding to texts as a means of planning, drafting and revising essays that express thoroughly developed ideas in Standard English. Prerequisite: ACT score of 18, COMPASS score of 70 or ENC 091. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

ENG 1012(0.75)  Course ID: 005788
Writing a Profile Essay
Focuses on academic writing. Provides instruction and practice in drafting, revising and editing essays which address specific audiences and enlist Standard English. Prerequisite: ENG 1011. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

ENG 1013(0.75)  Course ID: 005789
Writing to Persuade
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Prerequisite: ENG 1013. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

ENG 1014(0.75)  Course ID: 005790
Writing with Sources
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Prerequisite: ENG 1014. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

ENG 1021(1)  Course ID: 005791
The Language of Argument
Emphasizes argumentative writing. Provides further instruction in argumentation strategies and concepts, leading to the planning and drafting of a preliminary argumentative essay. Prerequisite: ENG 101 or ENG 104. Lecture 1.0 credits (15 contact hours).
Components: Lecture

ENG 1022(1)  Course ID: 005792
Argument Style and Design
Emphasizes argumentative writing. Provides instruction and practice in the primary elements of academic writing style, including word choice, evidence selection and organization. Prerequisite: ENG 1021. Lecture: 1 credit (15 contact hours).
Components: Lecture

Course Descriptions
ENG 1023(1) Course ID: 005793
Research and Argument
Emphasizes argumentative writing. Provides instruction in researching, proposing and revising an argumentative position, gathering and synthesizing research findings in support and documenting sources appropriately. Prerequisite: ENG 1022. Lecture: 1 credit (15 contact hours).
Components: Lecture

ENG 2031(1) Course ID: 015860
Specialized Business Messages
Enhances students' skills in business writing through exploration of specialized business messages and modes, including writing for job search, technology-enabled writing, and writing for oral delivery. Pre-requisite: ENG 2031. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ENG 2032(1) Course ID: 015861
Reports and Proposals
Emphasizes lengthy and complex business messages, specifically researching for and writing business reports and business proposals. Pre-requisite: ENG 2032. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ENM Energy Management

ENM 101(9) Course ID: 007242
Energy Industry Fundamentals
Investigates competencies required for employment by various industries that manufacture energy sources. Introduces students to methods of power production, power distribution, and physics principles that are associated with both, and addresses competencies identified by the Center for Energy Workforce Development (CEWD) organization needed for power industries. Qualifies the student to take the CEWD Energy Industry Fundamentals Certification exam. Lecture/Lab: 9.0 credits (150 contact hours).
Components: Lecture Attributes: Technical

ENM 111(3) Course ID: 007243
Sustainability Management
Examines the management of corporations as it relates to sustainability. Includes an overview of energy technology, energy resources, and emerging future energy technologies coupled with social and environmentally related legislation and its effect on corporations triple bottom line (people, profit, and planet). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

ENM 121(3) Course ID: 007244
Solar Design and Applications
Educates students about alternative solar energy applications which will contribute to a reduction in fossil fuel energy usage and increase cost savings related to conventional energy consumption. Additionally, the course serves to satisfy the competencies needed to qualify students to complete the North American Board of Certified Energy Practitioners (NABCEP) Entry Level Solar Certification. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ENM 200(3) Course ID: 007219
Commercial Energy Analysis
Examines ways to improve the energy efficiency of commercial buildings. Emphasizes the building envelope, lighting, HVAC, motors, appliances, water, electrical, and compressed air systems and their controls with a focus on an energy management system. Examines energy savings and reductions in operational expenses, commercial energy compliance software will be used. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ENM 210(3) Course ID: 007220
Smart Grid Applications
Introduces students to the components needed to renovate the current vertical structured power grid to a smart highway structure power grid that will allow energy to flow in different directions. Focuses on the application of different components within a smart grid system and how they integrate and communicate with each other for smooth transmission of electricity. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ENM 230(3) Course ID: 007221
Building Automation
Introduces students to the components involved in a building automated system (BAS). Investigates the communication and components contained in an integrated building system that controls various components of a building system. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ENM 250(3) Course ID: 007222
Regulatory and Environmental Issues in Energy Management
Observes building energy conservation code compliance adopted by various states. Complements other courses in the energy management program providing additional skills needed for energy efficient buildings. Qualifies students to take the LEED Green Associate exam upon completion of the course. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

ENM 260(3) Course ID: 007223
Air Conditioning and Refrigeration Regulations
Analyzes the regulations associated with the 608 EPA certification. Outlines techniques and regulations associated with EPA policies. Complements other proposed energy management courses providing additional skills needed for energy efficient buildings. Qualifies students to take the 608 EPA Certification Examination at the completion of the course. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

ENM 1011(3) Course ID: 016357
Energy Industry Basics
Investigates competencies required for employment by various industries that manufacture energy sources. Addresses the competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for energy industries. Combines with the other two modules to qualify students to take the CEWD Energy Industry Fundamentals (EIF) certification exam. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture

ENM 1012(3) Course ID: 016359
Power Creation and Distribution
Introduces students to methods of power production, power distribution, and physics principles that are associated with both. Addresses the competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for energy industries. Combines with the other two modules to qualify students to take the CEWD Energy Industry Fundamentals (EIF) certification. Pre-requisite: ENM 1011. Lecture: 3 credits (45 contact hours).
Components: Lecture

ENM 1013(3) Course ID: 016422
Energy Emerging Technologies
Introduces students to emerging technologies and careers in the energy industry. Addresses the competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for energy industries. Combines with the other two modules to qualify students to take the CEWD Energy Industry Fundamentals (EIF) certification. Pre-requisite: ENM 1012. Lecture: 3 credits (45 contact hours).
Components: Lecture

ENV Environmental Technology

ENV 110(4) Course ID: 001442
Introduction to Environmental Technology
Introduction to Environmental Technology provides a background in the historical and current developments in environmental problems, solutions, strategies, and regulations. Students explore the various aspects of water, land, and air pollution, pollution prevention and control, and the role of regulation at the local, state, and federal level.
Components: Lecture Attributes: Technical

EQM Equine Management

EQM 100(3) Course ID: 004755
Introduction to Equine Studies
The intent of this course is to give students a general overview and basic understanding of the horse, its care and management. Course topics include identification, anatomy, health, nutrition, facility and equipment management. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

EQM 120(3) Course ID: 004756
Introduction to Commercial Breeding Practices
Introduces prospective horse farm personnel to the breeding farm environment. Includes topics that relate to commercial breeding farm management and the necessary record keeping requirements. Prerequisite: EQM 100 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EQM 140(2) Course ID: 004757
Equine Business Management I
Course in equine management that serves to introduce the student to private and commercial horse farm operations, economic trends in the horse industry, international marketplace, capital, credit and risk associated with the equine industry. Prerequisite: EQM 100 and BA 160, or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

EQM 240(2) Course ID: 004852
Equine Business Management II
This course is a continuation of Equine Business Management I. Topics of discussion include types of farm ownership, structure of the horse farm as a business, and evaluation of farm financial performance through production levels, employee management, tax planning, bloodstock value, cash flow and budgeting. Prerequisite: EQM 140 and concurrent enrollment in or successful completion of ACC 201 and ECO 201, or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

EQM 242(3) Course ID: 004758
Equine Law
This course explores the value of legal documents as they relate to commercial and recreational horse/ horse farm owners. Topics discussed include review of current legislation governing horse activities, types of legal contracts, liability issues, and security interests. Prerequisite: EQM 100 and BA 260, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
Course Descriptions

EQM 246(1) Course ID: 004759
Current Trends in the Equine Industry
Seminar course in the horse industry designed to provide students with the opportunity to investigate, evaluate and debate key issues confronting horse owners and horse industry participants. Students are encouraged to analyze controversial circumstances in the equine industry and provide insight and logical conclusion. Seminar topics may include such issues as equine adoption, slaughter, transport, medications, account wagering, and public image. Prerequisite: EQM 242 or consent of instructor. Lecture 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

EQM 250(3) Course ID: 004760
Equine Practicum
A supervised, field-based learning experience in the equine industry, including observation and proactive participation in affiliated environments. Students are required to analyze their experiences throughout the semester to develop career objectives and strong interpersonal, communication and leadership skills. Prerequisite: EQM 240, EQM 242, and concurrent enrollment in or successful completion of EQM 246. Practicum: 3 credits (180 contact hours).

Components: Practicum
Attributes: Technical

EOS Equine Studies

EOS 101(3) Course ID: 007320
Introduction to the Thoroughbred
Provides a general overview and basic understanding of care and management of the thoroughbred, including identification, registration information, conformation, equine behavior and equine facility design and management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EOS 103(1) Course ID: 005349
Racehorse Care
Introduces principles of care for racehorses in a race barn training environment with students learning industry accepted standards and techniques utilized in providing care for racehorses. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Technical

EOS 104(3) Course ID: 007321
Racehorse Care Lab
Introduces principles of care for racehorses in a race barn training environment with students learning industry accepted standards and techniques while providing daily care for 1 or 2 racehorses. Pre-requisite or Co-requisite: EQS 103. Lab: 3.0 credits (135 contact hours).

Components: Laboratory
Attributes: Technical

EOS 110(3) Course ID: 005350
Basic Equine Physiology
Continues the study of equine care by examining the anatomy and physiology of equine body systems and applications of this knowledge to the raising, training and management of horses in general and racehorses in particular. Includes identification of three muscle fiber types, types, causes and symptoms of colic, thermoregulation; blood components and flow; upper and lower respiratory airway diseases and infectious neurological diseases. Pre-requisite Or Co-requisite: EQS 101 or consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EOS 111(4) Course ID: 005351
Introduction to Riding Racehorses
Covers requirements for becoming a licensed professional jockey including physical, mental and emotional components, regulatory agency requirements and necessary life management skills. Includes the history of race riding, identification of important riders in history and noteworthy current riders. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

EOS 112(4) Course ID: 005352
Instructor Consent Required
Racehorse Riding Skills I
Introduces basic horse riding skills and their application to racehorse riding. Presents and requires daily practice of proper rider position at walk, trot, canter, on turn and in straights. Includes discussion and round pen applications of center of gravity of horse, center of gravity of rider and center of gravity of the combination of horse and rider. Teaches proper techniques for cooling out after exercise and or racing. Prerequisite: Eighteen Studies is a selective admission program and enrollment in this course is dependent upon acceptance into the Equine Studies program. Prerequisite: EQS 111 and Consent of Instructor. Pre-requisite Or Co-requisite: EQS 103 and EQS 104. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture
Attributes: Technical

EOS 113(4) Course ID: 005353
Instructor Consent Required
Racehorse Riding Skills II
Continues development of riding skills learned in EQS 112 by applying principles to riding racehorses in morning exercise sessions. Includes application of balance to evaluate soundness in racehorses; basic starting gate techniques for riders; principles of teaching young horses to enter and leave the starting gate and techniques for handling unruly horses. Prerequisite: EQS 112 and consent of the instructor. Lecture/Lab: 4.0 credit (150 contact hours).

Components: Lecture
Attributes: Technical

EOS 115(3) Course ID: 015655
Equine Health and Medications
Prerequisite: EQS 103 and EQS 104. Lecture/Lab: 4.0 credits (150 contact hours)

Components: Lecture
Attributes: Technical

EOS 117(1) Course ID: 005497
Introduction to Breaking and Training Racehorses
Introduces the basic requirements for becoming a licensed racehorse trainer or other equine care worker. Includes historical contributions of prominent owners, breeders, trainers and racehorses that significantly impacted the history of their respective breed. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

EOS 122(3) Course ID: 005498
Instructor Consent Required
Yearling Breaking and Management
Introduces the basics of managing and training weanling and yearling racehorses including conformation, movement, pedigree analysis; pre-purchase examinations and practical application of pressure-release techniques of breaking and training young racehorses. Prerequisite: EQS 121 and permission of instructor. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

EOS 123(3) Course ID: 005499
Instructor Consent Required
Breaking and Prepping Two-Year Olds
Covers basics of managing racehorses through their yearling to 2-year old transition. Includes acquiring yearlings and/or two-year olds, breaking, prepping for in-training sales and/or racing, concepts of nutrition for growing equine athletes, cardiovascular conditioning, muscle fitness, sale presentation and injuries of two-year olds in race training. Pre-requisite Or Co-requisite: EQS 103. Racehorse Care EQS 104. Racehorse Care Lab. Lecture/Lab: 3.0 credits (105 contact hours).

Components: Lecture
Attributes: Technical

EOS 125(3) Course ID: 005804
Equine Nutrition
Prerequisite: EQS 110 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EOS 130(3) Course ID: 005354
Introduction to the Racing Industry
Introduces students to racing industry organizations, personnel, facilities and the rules of racing. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EOS 200(3) Course ID: 005500
Lameness in Racehorses
Expands on basic equine anatomy with emphasis on normal function of front and rear legs and methods of evaluating deviations from normal function presented as lameness in racehorses. Also discusses response to injury, forms of therapy and training methods for horses returning from injury. Prerequisite: EQS 110 or permission of instructor. Corequisite: Concurrent enrollment in EQS 110. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EOS 212(3) Course ID: 005503
Instructor Consent Required
Racehorse Riding Principles
Builds on basic skills learned in EQS 113 and adds principles of riding racehorses on a training track in company of other horses and riders, teaching horses to pass others, working in company, proper use of riding crop and breaking from a starting gate. Prerequisite: EQS 113 and permission of instructor. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

EOS 213(2) Course ID: 005504
Instructor Consent Required
Racehorse Riding Techniques
Teaches advanced fundamentals of race riding such as breezing racehorses alone and in company, using proper riding techniques at each point in a race, breaking horses from the starting gate, and practicing race riding skills in training races. Prerequisite: EQS 212 and consent of instructor. Lecture/Lab: 2.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

EOS 215(3) Course ID: 005505
Instructor Consent Required
Life Skills for Jockeys
Prerequisite: EQS 212 and consent of instructor. Corequisite: EQS 212. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EOS 223(4) Course ID: 005507
Instructor Consent Required
Training Principles and Practices
Examines techniques of training racehorses and compares effectiveness of different racehorse training methods including interval training, Quarter Horse training, steeplechase training and standard Thoroughbred training. Includes shoeing, veterinary examinations of racehorses and alternatives to training methods. Requires students to develop a training plan for assigned North American Racing Academy (NARA) racehorses, supervise first year NARA student “employees,” participate in NARA training races and develop a plan to communicate with owners regarding the status of horses in training. Prerequisite: EQS 123. Lecture/Lab: 4.0 credit (120 contact hours).

Components: Lecture
Attributes: Technical
Beginning-level students will improve the ability to speak and understand English in simple everyday and academic situations. The course will provide practice in pronunciation and basic oral communication functions. Beginning academic listening and speaking skills will also be covered. Students will be recommended to this course based on the ESL placement examination. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: English for Foreign Students

Intermediate Listening and Speaking

Low-intermediate level ESL students will improve comprehension and communication in English on a variety of everyday topics and in the academic setting. Students will develop and practice techniques for greater composure and confidence in oral expression. Practice will also be provided in pronunciation and intonation. Students will be recommended to this course based on the ESL placement examination or through completion of ESL 11. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: English for Foreign Students

Advanced Listening and Speaking

High-intermediate level ESL students will improve comprehension and communication in both social and academic settings. Instruction will include improving listening skills for academic note taking and small group discussion. Students will be expected to lead and share in class discussions based on reading and authentic listening materials. Students will also present orally in front of the class. Students will be recommended to this course based on the ESL placement examination or through completion of ESL 12. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: English for Foreign Students

Reading Improvement and Vocabulary Development for Low-Intermediate Non-Native English Speakers

Low-intermediate level students will review fundamental reading skills, learn and practice higher order reading skills, expand vocabulary and increase reading efficiency as they interact with level-appropriate texts. Prerequisite: placement test. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: English for Foreign Students

College Reading and Vocabulary Development for High-Intermediate Non-Native English Speakers

High-intermediate level ESL students will master fundamental reading skills, improve critical reading, and further vocabulary development. Students will be introduced to a variety of genres, such as newspaper articles and essays, poems, short stories, charts, graphs and college-level content textbooks. Through the selected readings, this course will foster cultural awareness, comprehension, and interaction. The readings and activities introduced in the course will allow students to engage in meaningful dialogue, and in the process, refine their English skills. Prerequisite: ESL 020 or placement test.

Components: Lecture
Attributes: English for Foreign Students

Reading Improvement and Vocabulary Development for Low-Intermediate Non-Native English Speakers

Low-intermediate level ESL students continue to enhance their composition skills by receiving instruction in the following: the writing process, organization, multi-paragraph writings, editing, and critical reading. Grammar instruction focuses on key structures and provides a springboard for expanding students' abilities in all language skills. Prerequisite: ESL 61.

Components: Lecture
Attributes: English for Foreign Students

Foundation of College Writing I for Non-Native English Speakers

Beginning level ESL students are introduced to composition with an emphasis on clarity, organization, development and correctness. Comprehensive review of mechanics, grammar and spelling as these apply to their own writing is also addressed in this course.

Components: Lecture
Attributes: English for Foreign Students

Foundations of College Writing II for Non-Native English Speakers

Intermediate-level ESL students will review fundamental reading skills, improve critical reading, and further vocabulary development. Students will be introduced to a variety of genres, such as newspaper articles and essays, poems, short stories, charts, graphs and college-level content textbooks. Through the selected readings, this course will foster cultural awareness, comprehension, and interaction. The readings and activities introduced in the course will allow students to engage in meaningful dialogue, and in the process, refine their English skills. Prerequisite: ESL 020 or placement test.

Components: Lecture
Attributes: English for Foreign Students

College Writing I for Non-Native Speakers

Introduces writing modes, including description, narration, process, and persuasion; presents methods of pre-writing; emphasizes development of thesis statements, topic support, and organization; describes basic concepts of verb tense and syntax. Credit is not given to students who have received credit for ESL 61. Pre-requisite: Placement According to KCTCS Assessment and Placement Policy. Lecture: 3.0 credit hours (45 contact hours).

Components: Lecture
Attributes: Remedial - English, English for Foreign Students

College Grammar I for Non-Native Speakers

Introduces basic verb tenses, formation of questions, modal verbs, clauses, count and non-count nouns, and parts of speech to non-native speakers of English. Incorporates instructional methods that are designed for non-native speakers of English. Credit is not given to students who have received credit for ESL 61. Pre-requisite: Placement According to KCTCS Assessment and Placement Policy. Lecture: 3.0 credit hours (45 contact hours).

Components: Lecture
Attributes: Remedial - English, English for Foreign Students

Beginning Writing

High-beginning level ESL students will learn composition skills by receiving instruction in the following: the writing process, organization, sentence development, paragraph writing, and editing. Basic instruction in grammar provided. Students will be recommended to this course based on the ESL placement examination.

Components: Lecture
Attributes: English for Foreign Students
Intermediate Writing for Non-Native English Speakers
Low-intermediate level ESL students will enhance their composition skills by receiving instruction in the following: the writing process, organization, multi-paragraph writing, editing, and critical reading. Basic instruction in grammar provided. Prerequisite: placement test.
Components: Lecture
Attributes: English for Foreign Students

Advanced Writing for Non-Native English Speakers
ESL 92 is designed to help students prepare for ENG 101. High-intermediate level ESL students continue to work on the writing process, editorial improvement, and critical reading. Students will be introduced to documenting sources. Grammar instruction includes advanced grammatical points. Prerequisite: ESL 91 or placement test.
Components: Lecture
Attributes: English for Foreign Students

Listening for Academic Purposes
This course cultivates skills to improve academic speaking performance for non-native speakers of English enrolled in American university classes. Special attention is given to effective academic presentations, interpersonal communication skills, pronunciation, and accent. This course is designed to help students’ speaking skills so they can communicate in academic settings with competencies similar to their native-speaker peers. Prerequisite: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

Speaking for Academic Purposes
This course cultivates skills to improve academic speaking performance for non-native speakers of English enrolled in American university classes. Special attention is given to effective academic presentations, interpersonal communication skills, pronunciation, and accent. This course is designed to help students’ speaking skills so they can communicate in academic settings with competencies similar to their native-speaker peers. Prerequisite: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

Reading for Academic Purposes
This course cultivates skills to improve academic reading performance for non-native speakers of English enrolled in American university classes. Special attention is given to cross-disciplinary academic reading, reading rates and speeds, effective research methods, documentation and essay exams skills. This course is designed to help students’ reading skills so they can participate in academic settings with competencies similar to their native-speaker peers. Prerequisite: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

Writing for Academic Purposes
This course cultivates skills to improve academic writing performance for non-native speakers of English enrolled in American university classes. Special attention is given to cross-disciplinary research, collaboration, the writing process, content organization and development, editing, and proofreading. This course is designed to help students’ writing skills so they can participate in academic settings with competencies similar to their native-speaker peers. Prerequisites: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

ESP Energy Systems
ESP 101(3) Course ID: 005324
Introduction to Energy Systems
Introduces energy generating systems including solar, wind, bioenergy, geothermal, hydroelectric, hydrogen-based, petroleum-based, coal, and nuclear. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 120(3) Course ID: 005492
Power Plant Chemistry
Introduces chemical processes relating to power plant operations including basic chemical principles and specific chemistry of fuels, boiler and cooling water, steam, water treatment and environmental controls. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 130(3) Course ID: 005493
Electrical Concepts
Provides an overview of the electrical concepts needed to operate a fossil-fueled power plant stressing in-plant electrical distribution and safe operation. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 132(3) Course ID: 005494
Electrical Machinery and Controls
Provides detailed training in the operation of electrical machinery and controls in a fossil-fueled power plant including proper operation during normal operations, startups and shutdowns, and transient. Prerequisite: ESP 130. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 211(3) Course ID: 005320
Power Plant Operations I
Introduces overall power plant operations including electrical generation, fuels and steam generation. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 212(3) Course ID: 005323
Power Plant Operations II
Provides detailed training in the operations of boilers, fuel, air, combustion and emissions systems, including auxiliary equipment of a coal-fired (fossil fueled) power plant. Proper operation during normal operations, startups and shutdowns, and transient conditions will be stressed. Prerequisite: ESP 211 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 213(3) Course ID: 005322
Power Plant Operations III
Provides detailed training in the operations of water, steam, turbines and generator systems of a coal-fired (fossil fueled) power plant stressing proper operation during normal operations, startups and shutdowns, and transient conditions. Prerequisite: ESP 211 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 214(3) Course ID: 005321
Power Plant Operations IV
Provides detailed training in the operation of the auxiliary components of a power plant, including valves, traps, actuators, pumps, couplings, air compressors, seals, lubrication systems, air exchangers, heat exchangers, and switches. Proper operation of each type of component and its function in the plant will be stressed. Prerequisite: ESP 211 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 220(3) Course ID: 005495
Power Plant Thermodynamics
Introduces basic thermodynamic concepts and the applications of thermodynamics in a fossil-fueled power plant. Prerequisite: PHY 151 or higher. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST Environmental Science Technology
EST 150(4) Course ID: 004744
Introductory Ecology
Introduces basic concepts and current applications of ecology relevant to environmental issues. Emphasizes relationships between organisms and the environment; influencing factors affecting distribution and abundance; population structure and regulation; energy flow and nutrient cycling through the environment; and, development, structure, and response to distribution of organisms. Includes weekly laboratories to provide hands-on field experiences to reinforce concepts learned in lecture. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory, SN - Science

EST 160(3) Course ID: 004745
Hydrological Geology
This course provides an introduction to geology and hydrology with an emphasis on understanding natural processes and the effects of human activities. Major topics covered include: plate tectonics; formation and classification of rocks and minerals; the processes affecting the hydrologic cycle; soil formation and classification; subsurface geology and groundwater movement; stream formation and flow; floods; and human impacts to stream hydrology and morphology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

Course Descriptions
EST 170(2) Course ID: 004746
Environmental Sampling Laboratory
A laboratory course which provides the fundamentals in evaluating and designing sampling approaches for different situations and different media. The course will provide students with field experience in sampling soil, surface water, groundwater, and benthic invertebrates. Laboratory: 2 credits (60 contact hours), Prerequisite: EST 150 or consent of instructor.

Components: Laboratory
Attributes: Technical

EST 220(3) Course ID: 004747
Pollution of Aquatic Ecosystems
This course examines freshwater ecosystems and typical aquatic pollutants. Discussion topics focus on the sources, transport, fate, and effects of common pollutants such as domestic wastewater, metals, acidity, and pesticides. Methods to minimize or eliminate the sources and effects of pollutants are also explored. Prerequisite or concurrent: EST 150, EST 160, CHE 105, and CHM 105 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EST 225(3) Course ID: 005054
Freshwater Invertebrates
An overview of the morphology, life history and ecology of freshwater invertebrates and their habitats as well as their importance and role in stream protection and restoration. Students will learn how to collect, preserve and identify freshwater invertebrates. Students will learn how to calculate and analyze biometrics used to infer stream quality. Prerequisite: EST 150.

Components: Lecture
Attributes: Technical

EST 230(2) Course ID: 004748
Aquatic Chemistry Laboratory
This course provides focused study on the chemistry of water. The course will provide students with laboratory experience in analyzing surface, ground, and drinking waters for a variety of chemical constituents. Laboratory: 2 credits (60 contact hours), Prerequisite: CHE 105, CHM 105, and prerequisite or concurrent EST 220.

Components: Laboratory
Attributes: Technical

EST 240(4) Course ID: 004749
Sources and Effects of Air Pollution
This course provides an introduction to the study of ambient and indoor air pollution with an emphasis on sources, dispersion, and health and welfare effects of the major pollutants. Both regulatory and engineering controls of stationary and mobile sources are explored. A laboratory provides experience with sampling and analysis of air pollutants. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours). Prerequisite: EST 150 and CIT 130, or equivalent, or consent of instructor.

Components: Laboratory, Lecture
Attributes: Technical

EST 250(3) Course ID: 004750
Solid and Hazardous Waste Management
This course examines methods of managing solid and hazardous waste, with an emphasis on pollution prevention. Topics covered include relevant legislation, recycling, incineration, landfill operations, management of radioactive waste, remediation of waste sites and site worker health and safety. Prerequisite: EST 150 and EST 180, or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EST 260(2) Course ID: 004751
Environmental Analysis Laboratory
This course provides an introduction to the fundamentals of analyzing environmental media. The course will provide students with laboratory experience in analyzing soil, surface water, groundwater, air and microbial samples. Laboratory: 2 credits (60 contact hours), Prerequisite: CHE 105, CHM 105 and prerequisite or concurrent EST 170.

Components: Laboratory
Attributes: Technical

EST 270(3) Course ID: 004752
Environmental Law and Regulation
This course is structured to provide the student with a basic understanding of major current federal and state environmental legislation and regulation with an emphasis on those portions that affect the regulated community. The course will also include an examination of the role of common law and the branches of government in environmental protection. Prerequisite or concurrent: EST 220, EST 240, and EST 250 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EST 280(1) Course ID: 004753
Environmental Trends Seminar
This course provides an examination of current approaches used to address a variety of environmental problems. Students will hear and critique presentations from professionals in the environmental field. Students will also research and give a presentation on a specific method to minimize or eliminate a current environmental problem. Prerequisite or concurrent: EST 160, EST 150, COM 191 or COM 252, EST 170, EST 220, EST 260, and EST 250 or consent of instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

EST 299(1-3) Course ID: 007544
Instructor Consent Required
Selected Topics in Environmental Science
Technology
A special project or experience in Environmental Science will be selected to enhance core material in the Environmental Science Technology program. It provides the student an opportunity for independent study or specialized instruction as approved by an instructor. This course may be repeated to a maximum of 6 hours. Prerequisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).

Components: Lecture
Attributes: Technical

ETT 110(4) Course ID: 004231
Voice & Data Installer Level I
A comprehensive orientation to the telecommunication industry. Provides entry-level telecommunications cabling installers with the background, knowledge, and basic skills needed to function effectively on the job. Designed for those with little or no telecommunications installation experience. Prerequisite: Basic physics/electricity courses recommended but not required. Lecture: 4 credits (75 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ETT 112(3) Course ID: 004232
Basic Electrical Theory: Telenetworking
Introduces the theory of electricity, magnetism, and the relationship of voltage, current, resistance, and power in electrical circuits as related to telecommunications. Designed to develop an understanding of alternating and direct current fundamentals. Students will apply formulas to calculate and analyze biometrics used to infer stream quality. Prerequisite: EST 150.

Components: Lecture
Attributes: Technical

ETT 114(4) Course ID: 004234
Voice & Data Installer Level II
Designed for experienced telecommunications installers who wish to expand knowledge of the industry, learn new skills, and continue to advance professionally. The Installer Level 2 course requires two to five years of recent, verifiable telecommunications/low voltage cabling experience. In addition, several sections from the Installer Level 1 course will be covered comprehensively in this course. Prerequisite: ETT 110 with a grade of “C” or greater. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

EX 1961 (1-6) Course ID: 000747
Instructor Consent Required
Experiential Education
A planned and evaluated learning work experience for which the student receives academic credits and may receive financial remuneration. The work experience may be related to the student’s major or may be exploratory in nature. One credit may be awarded for each 40 hours of work experience. The course may be repeated for a maximum of 6 credits and is available on a Pass/Fail basis only. This course is open only to transfer, nondegree and undeclared students. Lecture: Variable; Laboratory: Variable. Prerequisite: Consent of instructor.

Components: Laboratory, Lecture
Attributes: Technical

FAM 252(3) Course ID: 000662
Introduction to Family Science
Introduces the scientific study of the family, including important theoretical frameworks in family science, historical trends in marriage and family life, gender role theory, family life theory, parenthood, communication, economics of family life, conflict, divorce, step-families and step-parenting, and family strengths. Analyzes contemporary family issues and requires informed, written positions on those issues. Prerequisite: 3 hours of social or behavioral science or consent of instructor.

Components: Lecture
Attributes: SB - Social Behavior Science

FAM 253(3) Course ID: 000666
Human Sexuality: Development, Behavior, and Attitudes
Studies human sexuality, including the process of gender and attitudes, sexual response patterns, sexual behavior, and attitudes. Prerequisite: 3 hours in social or behavioral science or consent of instructor.

Components: Lecture
Attributes: SB - Social Behavior Science

FAM 255(3) Course ID: 000059
Child Development
Overviews the various aspects of development (physical, social, emotional, intellectual) for children ages birth through adolescence. Emphasizes techniques of directed observation. Prerequisite: 3 hours of social or behavioral science or consent of instructor.

Components: Lecture
Attributes: Other, Technical
**Course Descriptions**

**FLM Health Mathematics Fundamental**

**FLM 100(2)**  
Course ID: 001463  
**Dosage Calculations**  
Provides an overview of basic math skills, a thorough knowledge of the system of measurement and conversion, and application skills to perform dosage calculations. Emphasis is placed on unit analysis to calculate medication dosages.  
Components: Lecture  
Attributes: Technical

**FLK Folk Studies**

**FLK 276(3)**  
Course ID: 004779  
**Introduction to Folk Studies**  
An introduction to the study of folk traditions in different contexts, focusing on the concepts of folk group, cultural relativism, fieldwork, meaning and function, and the genres of folk narrative, folksong, folk custom and traditional material culture. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: AH - Arts and Humanities, AH - Arts and Humanities

**FLM Filmmaking**

**FLM 112(4)**  
Course ID: 016196  
**Filmmaking: Treatment to Short Screen Play**  
Provides project-based instruction on the basics of filmmaking. Familiarizes students with the process of creating a film treatment and proposal, and writing and revising a screenplay. Co-requisite: (FLM 122 AND FLM 132 AND FLM 140) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

**FLM 122(4)**  
Course ID: 016197  
**Filmmaking: Storyboard through Production**  
Provides project-based instruction on basics of film production. Familiarizes students with directing, lighting, set design, cinematography, and audio. Co-requisite: (FLM 112 AND FLM 122 AND FLM 140) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

**FLM 132(4)**  
Course ID: 016198  
**Filmmaking: Shooting through Distribution**  
Provides project-based instruction in production phases of film production. Emphasizes preparation for entry-level positions in the industry. Co-requisite: (FLM 112 AND FLM 122 AND FLM 140) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

**FLM 140(2)**  
Course ID: 016199  
**Filmmaking: Lab**  
Covers the lab portion of all topics included in FLM 112, FLM 122, and FLM 132. Consists of guest lecturers, group projects and hands on experience in film, ranging from pre-production and storyboards to post production. Co-requisite: (FLM 112 AND FLM 122 AND FLM 132) OR Instructor Consent. Laboratory: 2.0 credits (60 contact hours).  
Components: Laboratory  
Attributes: Technical

**FNS Funeral Services**

**FNS 101(2)**  
Course ID: 006947  
**Introduction to Funeral Service**  
Introduces the history, principles, and practices of funeral service with attention to the funeral skills, knowledge, ethics, aptitudes, and obligations of a funeral service professional in the United States. Pre-requisite: Admission to Funeral Service Program or consent of instructor. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture  
Attributes: Technical

**FNS 110(2)**  
Course ID: 006948  
**Funeral Service Management and Merchandising**  
Surveys management and merchandising techniques as related to the operation of a funeral business. Pre-requisite: Admission into Funeral Service Program. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture  
Attributes: Technical

**FNS 115(3)**  
Course ID: 006949  
**Funeral Service Directing**  
Covers the funeral service procedures, practices and customs of various religions and groups in the United States, as well as the techniques and considerations needed in conducting such services. Pre-requisite: Admission to the Funeral Service Program. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

**FNS 120(4)**  
Course ID: 006950  
**Funeral Service Counseling**  
Examines psychological concepts in the areas of grief, bereavement, and mourning with particular emphasis on the roles of the funeral director in relation to these concepts as well as a facilitator of the funeral service, crisis intervener, and after care counselor. Pre-requisite: Admission to the Funeral Service Program. Lecture: 4.0 credits (120 contact hours).  
Components: Lecture  
Attributes: Technical

**FNS 130(2)**  
Course ID: 006951  
**Business and Mortuary Law**  
Surveys law and the judicial system as these relate to the operation of a business, focusing on those statutes and regulations pertinent to funeral directors and morticians. Pre-requisite: Admission to the Funeral Service Program. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture  
Attributes: Technical

**FNS 131(3)**  
Course ID: 006952  
**Funeral Service Ethics, Regulations, and Statutes**  
Surveys general principles of mortuary and business law. Emphasis is on ethical practice. Compliance with pre-need and at-need regulatory agencies included. Pre-requisite: Admission to the Funeral Service Program. Lecture: 3.0 credits (45 contact hours).  
Components: Laboratory  
Attributes: Technical

**FNS 150(3)**  
Course ID: 006953  
**Pathology**  
Studies the effects of disease affecting the body. Focuses on disease processes and the healing response. Pre-requisite: Admission to the Funeral Service Program and BIO 225 or equivalent. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

**FNS 165(2)**  
Course ID: 006954  
**Sociology of Funeral Service**  
Surveys social phenomena that affect all elements of funeral service, including family and social structure and other factors that relate to funeral service. Pre-requisite: Admission to the Funeral Service Program. PSY 110 or SOC 101. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture  
Attributes: Technical

**FNS 170(4)**  
Course ID: 006955  
**Thanatochemistry**  
Surveys the basic principles of chemistry as they relate to funeral service. Stresses the chemical principles and precautions involved in sanitation, disinfection, public health and embalming practice. Reviews the government regulation of chemicals currently used in funeral service. Pre-requisite: Admission to the Funeral Service Program. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical
FNS 240(4) Course ID: 006956
Restorative Arts
Emphasizes restorative arts as applied to funeral services, including anatomical modeling, and expression. Emphasizes familiarization with tools, legal aspects, materials, and techniques. Pre-requisite: Admission to the Funeral Service Program and BIO 135. Lecture: 3 credits (45 contact hours) Lab: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

FNS 250(4) Course ID: 006957
Embaling
Emphasizes procedures, requirements, equipment, and materials involved in the embalming process. Pre-requisite: Admission to the Funeral Service Program and FNS 170. Lecture: 3 credits (45 contact hours) Lab: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

FNS 255(1) Course ID: 006958
Embaling Practicum
Provides practical experience in embalming and funeral directing in a mortuary or funeral home environment under the supervision of a licensed embalmer and/or funeral director. Pre-requisite: Admission to the Funeral Service Program and FNS 250. Practicum: 1 credit (50 contact hours).
Components: Practicum
Attributes: Technical

FPX 1002(0.3) Course ID: 005675
Introduction to Pneumatic System Maintenance
Introduces pneumatic system maintenance. Covers the skills required to service modern pneumatic and air preparation systems. Includes a general discussion on the safe working practices required with fluid power systems. Corequisite: FPX 1001 or Consent. Lecture: 0.4 credit (6.0 contact hours).
Components: Lecture

FPX 1003(0.4) Course ID: 005676
Introduction to Hydraulic System Maintenance
Introduces hydraulic system maintenance. Covers the skills required to service modern pneumatic and air preparation systems. Includes a general discussion on the safe working practices required with fluid power systems. Corequisite: FPX 1011 or Consent. Lecture: 0.3 credit (4.5 contact hours).
Components: Lecture

FPX 1004(1) Course ID: 006542
Hydraulic System Components and Applications
Introduces the basic fundamentals of hydraulic component, system design, and operation. Covers hydraulic schematic layout and design as well as the specifics involved with the actual component selection. Provides the opportunity to design and build actual hydraulic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Components: Lecture

FPX 1005(1) Course ID: 006543
Pneumatic Systems and Components
Introduces the basic fundamentals of pneumatic components and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides the opportunity to design and build actual pneumatic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1014 or Consent. Lecture: 1 credit (15 contact hours).
Components: Lecture

FPX 1011(0.3) Course ID: 005676
Introduction to Fluid Power Lab
Introduces the basic concepts of fluid power and discusses the application of those concepts in the development of hydraulic and pneumatic systems. Includes a general discussion on the safe working practices required with fluid power systems. Corequisite: FPX 1001 or Consent. Lab: 0.3 credits (9 contact hours).
Components: Laboratory

FPX 1012(0.3) Course ID: 005677
Introduction to Hydraulic System Maintenance Lab
Introduces pneumatic system maintenance. Familiarizes students with hydraulic fluids, reservoirs, and filters. Covers the methodologies required when servicing a typical hydraulic system. Includes a general discussion on the safe working practices required with fluid power systems. Corequisite: FPX 1002 or Consent. Lab: 0.3 credits (9 contact hours).
Components: Laboratory

FPX 1013(0.3) Course ID: 005678
Introduction to Pneumatic System Maintenance Lab
Introduces pneumatic system maintenance. Covers the skills required to service modern pneumatic and air preparation systems. Includes a general discussion on the safe working practices required with fluid power systems. Corequisite: FPX 1003 or Consent. Lab: 0.3 credit (9 contact hours).
Components: Laboratory

FPX 1014(0.55) Course ID: 006544
Hydraulic System Components and Applications Lab
Introduces basic fundamentals of hydraulic component, system design, and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides an opportunity to design and build actual hydraulic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Corequisite: FPX 1004 or Consent. Lab: 0.55 credits (16.5 contact hours).
Components: Laboratory

FRE French Language and Literature

FRE 101(4) Course ID: 00866
Elementary French I
Introduces basic modes of communication in French. Stresses speaking, listening, reading and writing as target skills. Emphasizes everyday language and presents an overview of the cultures of various Francophone countries.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 102(4) Course ID: 000754
Elementary French II
Continues the study of basic French through grammar, reading, and oral practice. Stresses speaking, listening, reading and writing as target skills. Emphasizes everyday language and exploring the cultures of various Francophone countries. Prerequisite: FRE 101.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 201(3) Course ID: 000874
Intermediate French I
Focuses on developing listening, speaking, reading, and writing skills in French at the intermediate level with an emphasis on developing cultural competency. Prerequisite: FRE 102 or two years of high school French and placement test.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 202(3) Course ID: 000811
Intermediate French II
Continues FRE 201 with a focus on developing listening, speaking, reading, and writing skills in French at the intermediate level with an emphasis on developing cultural competency. Prerequisite: FRE 201 or three years of high school French and placement test.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRS Fire/Rescue Science

FRS 101(3) Course ID: 001466
Introduction to Fire Service
This course includes fire department organization, fire behavior, firefighter safety, personal protective equipment, portable fire extinguishers, fire hose, appliance and streams.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 102(3) Course ID: 001467
Firefighters Basic Skills I
Includes ropes, ladders, aircraft rescue, forcible entry, first aid, bloodborne pathogens, emergency disaster planning, and CPR. Prerequisite: FRS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 103(3) Course ID: 001468
Firefighters Basic Skills II
Includes building construction, wildland fire behavior, fire control, and ventilation. Prerequisite: FRS 102 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 104(3) Course ID: 001469
Firefighters Intermediate Skills
Includes water supply, foam fire streams, fire alarms and communications, hazardous materials awareness, hazardous materials operations, sprinklers, and salvage and overhaul. Prerequisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 105(3) Course ID: 001470
Firefighters Intermediate Skills II
Includes fire department organization, fire behavior, personal protective equipment, fire hose, appliances and streams, ropes, forcible entry. Prerequisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 201(3) Course ID: 001471
Firefighters Advanced Skills I
Includes firefighting safety, rescue, ventilation ladders, fire control, and emergency disaster planning. Prerequisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 202(3) Course ID: 001472
Firefighters Advanced Skills II
Includes portable fire extinguishers, water supply, pump operations, foam fire streams, salvage, fire prevention, public education, and fire cause determination. Prerequisite: FRS 104 or Consent of Instructor. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 203(3) Course ID: 001473
Firefighters Advanced Skills III
Includes pump operations II, drivers training, overhaul, fire alarms and communications, sprinklers, and practive. Prerequisite: FRS 202 or Consent of Instructor. Lecture: 3 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 204(3) Course ID: 001474
EMT First Responder
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 205(5) Course ID: 001475
Fire Officer I
Includes incident safety officer, haz-mat tech., fire prevention, public education and fire cause determination II. Prerequisite: FRS 202 or Consent of Instructor. Lecture: 5 credits (75 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 206(8) Course ID: 001476
Fire Officer II
Includes EMT, managing company tactical operations, decision making, and instructional techniques for company officers. Prerequisite: FRS 203 or Consent of Instructor. Lecture: 8 credit hours (180 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 207(6) Course ID: 001477
Fire Officer III
Includes company officer, incident command system (ICS), leadership strategies for company success, and fire/arson detection. Prerequisite: FRS 203 or Consent of Instructor. Lecture: 6 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 1011(0.7) Course ID: 003890
Fire Department Organization I
Includes an overview of fire department organization, the role of department members, the mission of the department, standard operating procedures, rules and regulations, components of management, introduction to the Incident Command System and the roles of other agencies. Lecture: 0.7 credits (10 contact hours).
Components: Lecture
FRS 1012(0.3) Course ID: 003891
Fire Behavior I
Examines the aspects of the behavior of fire in its various forms. Covers the classification of fuel, products of combustion, and safety issues related to life hazards. Examines the three physical states of matter in which fuels are commonly found. Lecture: 0.3 credits (4 contact hours)
Components: Lecture
FRS 1013(0.4) Course ID: 003892
Firefighter Safety
Introduces the concept of safety in all phases of fire department operations. Covers station safety in normal day to day fire department operations as well as emergency response. Lecture: 0.4 credits (6 contact hours).
Components: Lecture
FRS 1014(0.8) Course ID: 003893
Personal Protective Equipment I
Addresses the nomenclature, use, maintenance, and documentation relative to the personal protective equipment including protective clothing and self-contained breathing apparatus. Prerequisite: (FRS 1012 and FRS 1013) or consent of instructor.
Components: Laboratory, Lecture
FRS 1015(0.2) Course ID: 003894
Portable Fire Extinguishers I
Covers types, characteristics and use of fire extinguishers including the definitions utilized in rating each type and the selection of a given extinguisher in attacking a particular class of fire.
Components: Laboratory, Lecture
FRS 1016(0.6) Course ID: 003895
Fire Hose, Appliances and Streams I
Introduces the student to the types, uses and operations of fire hose, appliances and streams used in the fire service. Prerequisite: FRS 1014 or Consent of Instructor
Components: Laboratory, Lecture
FRS 1021(0.2) Ropes I
Familiarizes the student with the use and maintenance of rope and the various ties useful to hoisting equipment, securing objects and rescue. Prerequisite: (FRS 101 or FRS 1014) or Consent of Instructor.
Components: Laboratory, Lecture
FRS 1023(0.4) Aircraft Rescue
Provides the basic information needed by firefighters to effectively perform the various tasks involved in aircraft fire fighting and rescue. The information is consistent with the recommendations in NFPA 1003 Standard for Professional Qualifications for Airport Fire Fighters, 1987 Edition. Lecture: 0.4 credits (6 contact hours).
Components: Laboratory, Lecture
FRS 1024(0.4) Rescue I
Addresses the procedures of search for location, removal of entangled and/or injured persons under fire conditions, and identifies the equipment required by the National Fire Protection Association used to affect the procedures. Prerequisite: FRS 1022 or Consent of Instructor
Components: Laboratory, Lecture
FRS 1025(0.3) First Aid
Addresses the knowledge and skills for administering first aid including the assessment and treatment of patients sustaining injury or sudden illness until a higher level of trained emergency care technician arrives.
Components: Laboratory, Lecture
FRS 1026(0.3) Bloodborne Pathogens
Provides bloodborne pathogens education for emergency responders, health professionals, and others who are subject to exposure in the 1) transmission; 2) prevention and control; 3) treatment; 4) legal issues; and 5) attitudes and behavior regarding human infections, and covers requirements of OSHA 1910.1030. Lecture: 0.3 credits (4 contact hours).
Components: Lecture
FRS 1027(0.1) Emergency Disaster Planning I
Introduces the concept of emergency management and the importance of an incident command system. Identifies the likelihood of fire department involvement as an all-hazard response agency. Lecture: 0.1 credits (2 contact hours).
Components: Lecture
FRS 1028(0.2) Forcible Entry I
Familiarizes members and construction features of doors, windows, walls, door and window locking devices. Teaches forced entry through at least three (3) different types each of doors, windows, and walls.
Components: Lecture
FRS 1039(0.5) CPR
Provides the knowledge and skills for administering care for respiratory or cardiac arrest including airway, breathing, and circulation assessment and the procedures to eliminate blockage of the airway, providing breathing assistance, and cardiac compressions.
Components: Lecture
FRS 1031(0.7) Building Construction
Provides the knowledge and skills for administering care for respiratory or cardiac arrest including airway, breathing, and circulation assessment and the procedures to eliminate blockage of the airway, providing breathing assistance, and cardiac compressions.
Components: Lecture
FRS 1032(0.5) Introduction to Wildland Fire Behavior
Familiarizes firefighters with wildland fires. Includes familiarization with the fire triangle, how environmental factors influence wildland fires, and the ability to recognize situations that indicate problem or extreme wildland fire behavior. Lecture: 0.5 credits (8 contact hours).
Components: Lecture
FRS 1033(1.4) Fire Control
Teaches the student to control or extinguish stacks of Class A materials, combustible liquids, vehicle fires, exterior dumpster/trash bin, and Class A combustible materials within a structure. Prerequisite: (FRS 1011 and FRS 1016 and FRS 1028) or Consent of Instructor.
Components: Laboratory, Lecture
FRS 1034(0.4) Ventilation I
Involves the study of the principles of ventilation, including the methods of removing heated air, smoke and gases from a structure. Includes a review of roof structures and their effects on ventilation procedures. Prerequisite: FRS 1022 or Consent of Instructor
Components: Laboratory, Lecture
FRS 1041(0.4) Water Supply I
Provides the firefighter with a general understanding of water systems. Broadens the base of understanding of a water supply system and how it works. Covers hydrant systems as well as static water sources for determining their value as a firefighter water supply source. Prerequisite: (FRS 1012 and FRS 1016) or Consent of Instructor
Components: Laboratory, Lecture
FRS 1042(0.2) Course ID: 003942
Foam Fire Streams I
Instructs the student in foam performance, extinguishing properties and types of foam used in the fire service today. Prerequisite: (FRS 1012 and FRS 2023) or Consent of Instructor.
Components: Laboratory, Lecture

FRS 1043(0.3) Course ID: 003943
Salvage I
Reviews salvage methods and operating procedures that further reduce fire, water, and smoke damage during and after fires. Prerequisite: FRS 1033 or Consent of Instructor.
Components: Lecture

FRS 1044(0.1) Course ID: 003944
Overhaul I
Provides the firefighter with a general understanding of the purpose and scope of overhaul, including recognition of hidden fires and methods used to separate, remove, and relocate charred materials. Prerequisite: (FRS 1028 and FRS 1034) or Consent of Instructor.
Components: Lecture

FRS 1045(0.2) Course ID: 003945
Fire Alarms and Communications I
Covers basic information pertaining to fire alarms and communications including radio operations, alarm receiving equipment, and dispatching procedures. Lecture: 0.2 credits (3 contact hours).

FRS 1046(0.5) Course ID: 003946
Hazardous Materials Awareness
Introduces the student to the principles of recognizing hazardous materials presence, protecting themselves from hazardous materials and calling for training/personnel, and securing the area safety. Lecture: 0.5 credits (8 contact hours).

FRS 1051(0.3) Course ID: 003908
Fire Department Organization II
Includes an overview of an advanced fire department member’s role within the organization and the member’s responsibilities relative to the transfer of command. Prerequisite: FRS 1011 or Consent of Instructor.
Components: Lecture

FRS 1052(0.4) Course ID: 003909
Fire Behavior II
Describes the chemistry and behavior of fire. Looks at finely divided fuel, flash point, ignition temperatures, and heat sources. Prerequisite: FRS 1012 or Consent of Instructor.
Components: Lecture

FRS 1053(0.5) Course ID: 003910
Personal Protective Equipment II
Addresses the nomenclature, use, maintenance, and documentation relative to the personal protective equipment including protective clothing and self-contained breathing apparatus. Prerequisite: FRS 1014 or Consent of Instructor.
Components: Laboratory, Lecture

FRS 1054(0.6) Course ID: 003911
Fire Hose, Appliances and Streams II
Covers the selection, maintenance and testing of fire hose, nozzles and appliances. Prerequisite: FRS 1033 or Consent of Instructor.
Components: Laboratory, Lecture

FRS 1055(0.7) Course ID: 003912
Ropes II
Involves rope size, strength, type and length of rope to accomplish a firefighting or rescue task. Prerequisite: FRS 1021 or Consent of Instructor.
Components: Laboratory, Lecture

FRS 1056(0.5) Course ID: 003913
Forcible Entry II
Involves the student in the proper use of foam, the equipment used to make foam, and the hydraulics used in creating foam. Prerequisite: FRS 1023 or Consent of Instructor. Lecture: 0.1 credits (1 contact hour).

FRS 1057(0.3) Course ID: 003914
Firefighter Safety II
Correlates federal, state, and local laws as they relate to firefighter health and safety. Discusses the firefighter’s role in department safety and includes safety procedures for hand and powered tools. Prerequisites: (FRS 1013 and FRS 1026 and FRS 1034) or Consent of Instructor.
Components: Lecture

FRS 1058(0.7) Course ID: 003915
Ladders II
Involves training to meet Federal Occupational Safety and Health Administration (OSHA), local occupational health and safety regulations and, U.S. Environmental Protection (EPA) requirements. Prerequisite: (FRS 1014 and FRS 1046) or Consent of Instructor. Lecture: 1.1 credits (16 contact hours).
Components: Lecture

FRS 1059(0.2) Course ID: 003948
Sprinklers I
Gives the firefighter a basic understanding of how sprinkler systems are designed and how they operate. Prerequisite: FRS 1041 or Consent of Instructor. Lecture: 0.2 credits (3 contact hours).
Components: Lecture

FRS 1060(0.3) Course ID: 003909
Fire Control II
Provides an advanced course to teach the student to control or extinguish live fires involving combustible liquids of at least 100 sq. ft. using foam, fire in an elevated location, hidden fires inside walls and crawl spaces, fire involving energized electrical components and fire involving a flammable gas cylinder. Prerequisite: FRS 1033 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

FRS 1061(0.3) Course ID: 003916
Ventilation I
Reviews mechanical ventilation systems and their use in fire ground operations. Prerequisite: FRS 1034 or Consent of Instructor. Lecture: 0.3 credits (4 contact hours).

FRS 2011(0.3) Course ID: 003917
Fire Prevention, Public Education and Fire Cause Determination I
Covers basic information pertaining to the causes of fire and their prevention, fire inspections, and public fire education. Prerequisite: FRS 1043 or Consent of Instructor. Lecture: 0.8 credits (12 contact hours).

FRS 2012(0.7) Course ID: 003918
Fire Control II
Provides an advanced course to teach the student to control or extinguish live fires involving combustible liquids of at least 100 sq. ft. using foam, fire in an elevated location, hidden fires inside walls and crawl spaces, fire involving energized electrical components and fire involving a flammable gas cylinder. Prerequisite: FRS 1033 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

FRS 2013(0.3) Course ID: 003919
Emergency Disaster Planning II
Meets the needs of fire officers and crew leaders with responsibilities to manage the operations of one or more companies in structural firefighting operations. Includes preparation for response, decision-making, and tactical operations. Involves extensive use of simulation to apply concepts and develop skill. Prerequisite: FRS 1027 or Consent of Instructor. Lecture: 0.8 credits (13 contact hours).
Components: Lecture

FRS 2014(0.3) Course ID: 003920
Portable Fire Extinguishers II
Covers types, classification and use of fire extinguishers including the definitions utilized in rating each type and the selection of a given extinguisher in attacking a particular class of fire. Prerequisite: FRS 1045 or Consent of Instructor. Lecture: 0.1 credits (2 contact hours).

FRS 2021(0.1) Course ID: 003921
Water Supply II
Involves information pertaining to water supply including water distribution systems, hydrant operation and apparatus, equipment and appliances required to provide water for fire extinguishment. Prerequisite: FRS 1041 or Consent of Instructor.
Components: Laboratory, Lecture

FRS 2023(1.1) Course ID: 003922
Pump Operations I
Includes the minimum requirements of professional competence of fire service pump operators. Prerequisite: FRS 1041 or Consent of Instructor.
Components: Laboratory, Lecture

FRS 2024(0.1) Course ID: 003923
Fire Alarms and Communications II
Involves an advanced course designed to instruct the student in the proper use of foam, the equipment used to make foam, and the hydraulics used in creating foam. Prerequisite: FRS 1023 or Consent of Instructor.
Components: Lecture

FRS 2025(0.1) Course ID: 003924
Salvage II
Covers, at an advanced level, salvage methods and operating procedures that further reduce fire, water, and smoke damage during and after fires. Prerequisite: FRS 1043 or Consent of Instructor. Lecture: 0.1 credits (1 contact hour).

FRS 2026(0.8) Course ID: 003957
Fire Prevention, Public Education and Fire Cause Determination II
Covers basic information pertaining to the causes of fire and their prevention, fire inspections, and public fire education. Prerequisite: FRS 1043 or Consent of Instructor. Lecture: 0.8 credits (12 contact hours).

FRS 2027(0.2) Course ID: 003925
Pump Operations II
Includes the minimum requirements of professional competence of fire service pump operators. Prerequisite: FRS 2023 or Consent of Instructor. Lecture: 0.5 credits (8 contact hours).
Components: Lecture

FRS 2028(0.8) Course ID: 003926
Driver’s Training
Includes the minimum requirements of professional competence required for service as a fire apparatus driver. Prerequisite: FRS 2011 and FRS 2013 and Valid Driver License.
Components: Laboratory, Lecture

FRS 2030(0.2) Course ID: 003927
Overhaul II
Includes information pertaining to overhaul including safety precautions, indicators of structural instability, the preservation of evidence and the procedures for restoration of the fire premises. Prerequisite: FRS 1044 or Consent of Instructor. Lecture: 0.2 credits (3 contact hours).
Components: Lecture

FRS 2034(0.3) Course ID: 003928
Fire Alarms and Communications II
Discusses the policies and procedures concerning ordering and transmitting of multiple alarms and supervisory alarm equipment. Prerequisite: FRS 1045 or Consent of Instructor. Lecture: 0.3 credits (5 contact hours).
Components: Lecture
Course Descriptions

FRT 2035(0.5) Course ID: 003929
Sprinklers II
Promotes increased knowledge of various types of sprinkler systems and the working of these systems. Prerequisite: FRS 1048 or Consent of Instructor. Lecture: 0.5 credits (7 contact hours).
Components: Lecture

FRT 2036(0.7) Course ID: 003930
Practicum
Provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the practicum do not receive compensation. Prerequisite: FRS 101 and FRS 102 and FRS 103 and FRS 104. Components: Practicum

FRT 2041(3) Course ID: 003931
First Responder (EMS)
Covers selected aspects of trauma care as outlined by the national standard created by federal guidelines and considered to be the responsibilities services with emergency medical response missions, consisting of classroom and laboratory instructions. Involves typical anatomy and physiology; patient assessment, care for respiratory and cardiac emergencies, control of bleeding, treatment for traumatic shock; care for fractures, dislocation, sprains and strains; medical emergencies; emergency childbirth; burns and heat emergencies; environmental emergencies; principles of vehicle rescue, transportation of patient, and general operations of emergency medical services. Lecture: 3 credits (45 contact hours).
Components: Lecture

FRT 2051(0.5) Course ID: 003932
Fire Prevention, Public Education and Fire Cause Determination II
Relates to prefire planning, fire incident reports, building fire safety surveys, school exit drills, home safety programs, common fire hazards, fire cause determination, protection and detection systems and identification of structural deficiencies that could cause fires. Prerequisite: FRS 2026 or Consent of Instructor. Components: Lecture

FRT 2052(1.1) Course ID: 003958
Firefighter Survival & Rescue
This intensive training course was developed in response to the tragic deaths of many firefighters across the nation in the past several years. Many of those who perished did so because they could not get out of the fire building or area where they were working. We train our firefighters in confined spaces, hazardous materials, infectious disease control, and incident command but until now there was no training course that taught our firefighters how to save their own lives. The firefighter Survival and Rescue courses are designed to fill this void by reviewing conditions and situations which may pose a risk to firefighters and by teaching firefighters how to help themselves in emergency conditions. Prerequisite: FRS 1024 or Consent of Instructor. Lecture: 1.1 credits (16 contact hours).
Components: Lecture

FRT 2053(3.4) Course ID: 003933
Hazardous Materials Technician
Provides the required training for Federal Occupational Safety and Health Administration (OSHA), Kentucky Occupations Health and Safety regulation and U.S. Environmental Protection Agency (EPA) requirements. Covers responding to releases or potential releases of hazardous materials for the purpose controlling the release and using specialized chemical-protective clothing and specialized control equipment. Prerequisite: FRS 1047 or Consent of Instructor. Components: Laboratory, Lecture

FRT 2061(6) Course ID: 003934
Emergency Medical Technician (EMT)
Covers all knowledge aspects of trauma care as outlined by national standards, created by federal guidelines, considered to be the responsibilities of ambulance operations. Involves typical anatomy and physiology, patient assessment, care for respiratory and cardiac emergencies, control of bleeding, application of dressing and bandages, treatment for traumatic shock; care for fractures, dislocation, sprains and strains; medical emergencies; emergency childbirth; burns and heat emergencies; environmental emergencies; principles of vehicle rescue, transportation of patients and general operations of ambulance systems. Prerequisite: Consent of Instructor. Components: Lecture

FRT 2062(1) Course ID: 003935
Managing Company Operations: Decision Making
Meets the needs of fire officers and crew leaders with responsibilities to manage the operations of one or more companies in structural firefighting operations. Includes preparation for response, decision making, and tactical operations. Includes, as the foundation of the course, an extensive unit of simulation to provide application of concepts and the development of skills. Provides an effective approach to command decision making and organization. Focuses on a review of the command sequence and an overview of incident command for structural firefighting. Prerequisite: Consent of Instructor. Lecture: 1 credit (15 hours).
Components: Lecture

FRT 2063(1) Course ID: 003936
Instructional Techniques for Company Officers
Designed for company officers and other fire or rescue service personnel with the responsibility for conducting periodic company level or small unit training. Introduces the participant to basic instructional concepts and techniques. Emphasizes principles and techniques applicable to fire and rescue service training. Includes effective communication, teaching from lesson plans, methods of instruction with emphasis on skills training, and adult learning. Prerequisites: (FRS 101 and FRS 102 and FRS 202 and FRS 203) and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor. Components: Laboratory, Lecture

FRT 2071(3.5) Course ID: 003937
Company Officer
Involves information and activities needed to meet the minimum standards of Fire Service Company Officers in practicing the competencies relative to administrative and incident resolution consistent with National Fire Protection Association Code 1021. Prerequisites: (FRS 101 and FRS 102 and FRS 103 and FRS 104 and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor. Lecture: 3.5 credits (52 contact hours).
Components: Lecture

FRT 2072(0.9) Course ID: 003938
Incident Command System (ICS)
Meets the needs of fire officers and managers with responsibilities to use, deploy, implement and/or function within a departmental Emergency Management Systems. Addresses the need for incident management systems, an overview of the structure and expandability of ICS, an understanding of the command skills needed by departmental officers to effectively use ICS, guidelines and scenario practice on how to apply ICS, and guidelines and resource information for setting up and implementing a departmental ICS. Lecture: 0.9 credits (14 contact hours).
Components: Lecture

FRT 2073(0.8) Course ID: 003939
Leadership I: Strategies for Company Success
Designed to meet the needs of the company officer. Provides the participant with basic skills and tools needed to perform effectively as a leader in the fire service environment. Addresses techniques and approaches to problem-solving, identifying and assessing the needs of the company officers subordinates, running meetings effectively in the fire service environment, and decision-making for the company officer. Prerequisites: (FRS 101 and FRS 102 and FRS 103 and FRS 104 and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

FRT 2074(0.8) Course ID: 003940
Fire/Arson Detection (Arson I)
Designed for fire officers and firefighters to improve their skills in determining fire causes at the fire scene. Begins with the study of the motivation of the arsonist and progresses through to the prosecution of the crime of arson. Includes the goal of providing appropriate training to the firefighter and fire officer so as to make an impact in reducing arson throughout the nation. Prerequisites: (FRS 101 and FRS 102 and FRS 103 and FRS 104 and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

FRT 93(0.1 - 6) Course ID: 005311
Selected Topics in Homeland Security
Examines special topics in Homeland Security offered in response to need of citizens and emergency response personnel. Outlines and course competencies will be located in the Academic Dean’s office. Lecture: 0.1 - 6 credits (1.5 - 90 contact hours).
Components: Lecture

FRT 95(0.2 - 6) Course ID: 004167
Special Topics in Industrial Fire Protection
This course includes subjects related to the provision of fire protection in the industrial setting, to include but not limited to: fire extinguisher operations, fire alarm systems, fire protection systems, incident fire brigade operations, and structural fire brigade operations.
Components: Lecture
Attributes: Technical

FRT 96(0.2 - 6) Course ID: 004166
Special Topics in Hazardous Materials
This course includes subjects related to the response to hazardous materials incidents, to include but not limited to: hazardous materials awareness, hazardous materials operations, hazardous materials technician, and hazardous materials continuing education.
Components: Lecture
Attributes: Technical

FRT 97(0.2 - 6) Course ID: 004165
Special Topics in Emergency Medical Services
This course includes subjects related to the provision of emergency medical services, to include but not limited to: CPR, first aid, first responder medical, emergency medical technician (EMT), and EMS continuing education.
Components: Lecture
Attributes: Technical

FRT 99(0.2 - 6) Course ID: 004164
Special Topics in Rescue
This course includes subjects related to technical rescue services, to include but not limited to: vehicle rescue, confined space rescue, high angle rescue, water rescue, and farm rescue.
Components: Lecture
Attributes: Technical

FRT 100(0.2 - 6) Course ID: 004163
Special Topics in Firefighting
This course includes subjects related to fire department services, to include but not limited to: fire prevention, fire suppression, company officer leadership, communications, building construction, and cause and origin investigations.
Components: Lecture
Attributes: Technical

FSI 110(3) Course ID: 015771
Introduction to Forensic Science with Laboratory
Introduces students to the field of forensic and investigative sciences. Focuses on the application of the scientific method of modern science to physical evidence analysis, including trace evidence, DNA analysis, ballistics, drug analysis, fibers, fingerprints, hair, tool marks, ink and other common discovery techniques. Pre-requisite: scores above 25 on the ACT, 900 on the SAT or consent of instructor. Lecture: 2.0 credits (60 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Other
**FYE Achieving Academic Success**

**FYE 100(1) Course ID: 007399**

**Strategies for College Success**
Introduces students to strategies and information that promote success in the college environment including educational planning, campus resources, and academic success skills. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Other, Course Also Offered in Modules

**FYE 105(3) Course ID: 007213**

**Achieving Academic Success**
Introduces students to strategies that promote academic, personal, and professional success in the college environment. Fosters a sense of belonging, promotes engagement in the curricular and co-curricular life of the college, and provides opportunities for students to develop academic plans that align with career and life goals. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other, Course Also Offered in Modules

**FYE 1001(0.4) Course ID: 007500**

**Introduction to the College Campus**
Introduces students to campus resources to promote academic and personal success. Lecture: 0.4 credits (6 contact hours).

Components: Lecture

**FYE 1002(0.3) Course ID: 007401**

**Self-Management Skills**
Introduces students to strategies and resources to promote personal responsibility for self-management skills. Lecture: 0.3 credits (4.5 contact hours).

Components: Lecture

**FYE 1003(0.3) Course ID: 007402**

**Academic and Career Choices**
Introduces students to skills and resources to promote development of academic and career choices. Lecture: 0.3 credits (4.5 contact hours).

Components: Lecture

**FYE 1051(1) Course ID: 007403**

**Orientation to College**
Introduces students to college policies, departments, student organizations, and technology to promote academic and personal success. Lecture: 1.0 credit (15 contact hours).

Components: Laboratory

**FYE 1052(1) Course ID: 007404**

**Education and Career Planning**
Introduces students to skills and resources needed to achieve academic and career success. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

**FYE 1053(1) Course ID: 007405**

**Academic, Financial, and Personal Skills**
Introduces students to skills and resources needed to develop responsibility for personal, classroom and academic success. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

**GBS Global Studies**

**GBS 290(3) Course ID: 005514**

**Instructor Consent Required**
Global Studies Capstone Course
Integrates knowledge and concepts from the Global Studies core courses, study abroad experience, guided research and independent reading through a culminating project such as a research report, portfolio, or exhibition and a formal presentation. Prerequisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

**GEN General College Studies**

**GEN 91(3) Course ID: 007368**

**Foundations of Information Literacy**
Introduces information literacy skills. Focuses on skills related to defining information needs, finding sources, using information to solve problems, organizing and presenting information, and evaluation. Pre-requisite: COM/PEAS Reading Score of 60+ OR English Score of 39+. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Reading

**GEN 100(1) Course ID: 008871**

**Introduction to College**
Introduces new students to college and college life, support services provided by the college, techniques for academic success, and career exploration. Lecture: 1.0 credit hour (15 contact hours).

Components: Lecture
Attributes: Other, Course Also Offered in Modules

**GEN 102(3) Course ID: 008872**

**Foundations of Learning**
Presents strategies which promote academic and personal success in college, including utilizing campus resources, learning and memory, self-management, critical reading, critical thinking, classroom skills, and career exploration. Lecture: 3 credit hours (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

**GEN 103(1) Course ID: 005328**

**Instructor Consent Required**
**Principles of Peer Mentoring**
Focuses on the study of issues, topics, and strategies related to mentoring first-year students. Relevant student development theory is highlighted. Prepares peer mentors to assist in teaching a section of GEN 100. Prerequisites: Sophomore status and consent of instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Other

**GEN 104(2) Course ID: 005329**

**Instructor Consent Required**
**Applied Principles of Peer Mentoring**
Offers academic credit to peer mentors who assist teaching a section of GEN 100 with a faculty member. Prepares peer mentors for helping plan course content, meeting with first-year students, and assisting with other course-related responsibilities as determined by the GEN 100 faculty member. Prerequisite: GEN 103 and consent of GEN 100 instructor and Sophomore status. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Other

**GEN 120(3) Course ID: 003864**

**Service Learning**
Engages students directly in structured, community-based activities to acquaint them with community opportunities, services, and needs. Integrates concepts from the classroom with community service allowing students to practice concepts while developing an appreciation of service. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

**GEN 122(1) Course ID: 003871**

**The Exemplary Tutor**
Trains college students to be effective tutors by introducing ethics and philosophy of tutor-tutee relationships and concepts of questioning, learning styles, problem solving, active listening, goal setting, and critical thinking. Can be taken 1 time for a total of 1 credit. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Other

**GEN 123(1 - 3) Course ID: 003872**

**The Exemplary Reading Tutor**
Provides credit for students wishing to tutor in reading or reading based courses as related to the reading expectations in the KDE Core Curriculum. Grants credit of 1 hour for 45 hours of tutoring, 2 credits for 90 hours of tutoring, and 3 hours for 120 hours of tutoring. May be repeated for a total of 6 credits. Pass/Fail. Pre-requisite: GEN 122

Components: Laboratory, Lecture
Attributes: Other

**GEN 125(3) Course ID: 006590**

**Applied Meta-Thinking**
Develops critical thinking skills and literacy processes across disciplines utilizing communication and appropriate applications in making self-paced, self-directed decisions and judgments. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

**GEN 130(3) Course ID: 005055**

**Introduction to Information Resources**
Provides basic concepts of the information society including different types of libraries and electronic resources, such as the internet, online databases, and information management software. Focuses on the nature of information, computer technology, and ethical computing issues. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

**GEN 131(1) Course ID: 005524**

**Basic Library Research and Resources**
Introduces student to effective and efficient use of information resources through development of search statements/strategies, location and evaluation of information and information resources, and review and revision of search strategies as needed. Introduces students to the library catalog, print resources, databases, web resources and to the evaluation of information.
Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Other

**GEN 140(3) Course ID: 000179**

**Instructor Consent Required**
**Development of Leadership**
Introduces concepts of leadership and group dynamics, especially focusing on each student’s individual leadership philosophy, and providing opportunities for all students to develop leadership skills and potential. Prerequisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

**GEN 150(1) Course ID: 000589**

**Basic Computer Skills**
Provides an introduction to commonly-used computing functions, emphasizing information processing, hands-on experience, and software packages. (This course does not meet the KCTCS computer literacy requirement.).

Components: Laboratory, Lecture
Attributes: Computer Literacy, Other

**GEN 175(3) Course ID: 006594**

**Career and Life Skills Development**
Investigates the importance of appropriate social behavior and interaction in the workplace. Presents skills necessary for job search, self-management, and life and work transitions for adapting to changing demands and expectations. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other, Course Also Offered in Modules

**GEN 225(3) Course ID: 006601**

**LifeLong Learning Applications**
Develops and identifies overall life skills in complex systems as a whole to interact and communicate with others to produce successful outcomes. Prerequisite: GEN 175 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules
GEN 240(3) Course ID: 015506
Leadership Applications
Connects the principles of transformational leadership with personal behavior by building a base of leadership theory for a practical philosophy. Engages students in directed projects and case studies to put theory into practice. Provides instruction directly related to integrity, planning, alignment, decision-making, fostering understanding, change-management, relationships, internal locus of control, trust, respect, image-projection, influence, and building a following. Pre-requisite: GEN 140 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

GEN 276(1) Course ID: 004489
Employment and Professional Skills
Prepares the process of effective career planning and develops the skills necessary for obtaining and maintaining employment. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

GEN 1021(1) Course ID: 007078
College Basics & Learning Styles
Provides an overview to campus and online resources, policies, and procedures including diversity. Presents strategies for identifying personal learning, self-management, and career exploration tools. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

GEN 1022(1) Course ID: 007079
Critical Reading and Thinking
Presents strategies and tools to promote critical reading and thinking. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

GEN 1023(1) Course ID: 007080
Classroom Skills and Test-taking
Presents strategies and tools to promote classroom and test-taking skills. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

GEN 1251(1) Course ID: 006591
Transmission Connections
Introduces various forms of communication. Provides skills for understanding verbal and nonverbal communication and reflection on experiences. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

GEN 1252(1) Course ID: 006592
Learning Skills Application
Provides skills for thinking critically and creatively, connecting prior learning, using reciprocal relationships, and interpreting information. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

GEN 1253(1) Course ID: 006593
Effective Decision Making
Provides skills to analyze and evaluate judgments, ethical considerations, and new and diverse perspectives and points of view. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

GEN 1401(1) Course ID: 015781
Philosophy and Self-Awareness
Provides concepts of leadership and group dynamics, especially focusing on each student's individual leadership philosophy. Provides opportunities for all students to develop individual potential and skills related to servant leadership and ethics. Pre-requisite: Consent of instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

GEN 1402(1) Course ID: 015782
Exploration and Analysis
Provides concepts of leadership and group dynamics, especially focusing on each student's individual leadership philosophy. Provides opportunities for all students to develop individual potential and skills related to visioning, trust and team-building, goal-setting, and decision-making. Pre-requisite: GEN 1401. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

GEN 1403(1) Course ID: 015783
Summary and Reflection
Presents concepts of leadership and group dynamics, especially focusing on each student's individual leadership philosophy. Provides opportunities for all students to develop individual potential and skills related to conflict resolution, management of change, empowerment of others and time management. Includes leadership course summary and reflection. Pre-requisite: GEN 1402. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

GEN 1751(0.4) Course ID: 006595
Career Planning Using Technology
Explores career search and selection enhanced by the development of an electronic portfolio. Lecture: 0.4 credits (6.0 contact hours).

Components: Lecture

GEN 1752(0.4) Course ID: 006596
Exploring Employment Strategies
Explores elements of the pre-employment process. Lecture: 0.4 credits (6.0 contact hours).

Components: Lecture

GEN 1753(0.4) Course ID: 006597
Business Basics
Presents basic business, math, and communication skills for the workplace. Lecture: 0.4 credits (6.0 contact hours).

Components: Lecture

GEN 1754(0.4) Course ID: 006598
Customer Service
Presents basic approaches for effective customer service skills. Lecture: 0.4 credits (6.0 contact hours).

Components: Lecture

GEN 1755(1) Course ID: 006599
Workplace Transitions
Presents employment and life skills including social interaction through workplace diversity, problem solving, working in teams, business procedures, and performance processes. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

GEN 1756(0.4) Course ID: 006600
Workplace Skills
Provides knowledge about cultural differences, value of diverse teams, and social respect. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.4 credits (6.0 contact hours).

Components: Lecture
Attributes: Other

GEN 2257(0.4) Course ID: 006602
Social Respect and Collaboration
Develops students' community service by enabling knowledge about civic engagement and government processes. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

GEN 2258(0.3) Course ID: 006609
Self-directed Learning
Identifies skills and strategies for being a self-learner through life and presents the importance of lifelong learning. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

GEO Geography

GEO 130(3) Course ID: 000351
Earth's Physical Environment
A course exploring the fundamental characteristics of earth's physical environment. Emphasis is placed on identifying interrelationships between atmospheric processes involving energy, pressure, and moisture; weather and climate; and terrestrial processes of vegetative biomes, soils, and landscape formation and change. Fulfills elementary certification requirements in education, and USP cross-disciplinary requirement.

Components: Lecture
Attributes: SN - Science

GEO 152(3) Course ID: 000398
Regional Geography of the World
Introduces regional geography with a focus on the world's physical and human landscapes. Emphasizes connections between regions and how each region affects and is affected by global issues such as economic restructuring, food production, and environmental change. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

GEO 160(3) Course ID: 000422
Lands and Peoples of the Non-Western World
Provides a geographic study of world regions defined conceptually and historically as non-Western. Includes global patterns of social, cultural, economic and political differences between the West and Non-West and the processes key to making the Non-Western world, such as colonialism and imperialism. Considers significant current issues including sustainable development, environment, human rights, and gender relations.

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science
GEO 162(3) Course ID: 007194
Introduction to Global Environmental Issues
This course addresses environmental questions of global importance, including population growth, resource consumption, environmental degradation, biodiversity conservation, toxic contamination and environmental justice. (Fullfilts Gen Ed Global Dynamics requirement at the University of Kentucky.) Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, University Course (University of Kentucky)

GEO 172(3) Course ID: 000158
Human Geography
Presents a study of the spatial distributions of significant elements of human occupancy of the earth’s surface including basic concepts of diffusion, population, migration, settlement forms, land utilization, and impact of technology on human occupancy of the earth. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

GEO 210(3) Course ID: 000610
Pollution, Hazards, and Environmental Management
An introduction to environmental systems such as weather and climate, vegetation, land forms and soils, and how the quality of these systems is modified by human use. Resource issues discussed include: atmospheric pollution and global warming; groundwater, flooding, and flood plain management; volcanic activity and earthquakes; and biophysical processes associated with deforestation and lake eutrophication. Case studies based upon important environmental problems illustrate how human activity and environmental systems interrelate. Fullfills USP Cross-Disciplinary requirement.
Components: Lecture
Attributes: SB - Social Behavior Science

GEO 222(3) Course ID: 000482
Cities of the World
Focuses on the historical development, contemporary character, and alternative futures of cities in both developing and developed regions. Emphasizes the spatial, social, economic, and political processes of major world cities. Includes a specific focus on contemporary urban problems.
Components: Lecture
Attributes: SB - Social Behavior Science

GEO 240(3) Course ID: 000434
Geography and Gender
Presents a geographic approach to the study of gender relations, emphasizing the role of space and place in shaping the diversity of gender relations throughout the world. Stresses the importance of gender relations in understanding a variety of issues through the application of case study analysis. Includes the design and use of urban and rural environments, “Third World” development, regional economic restructuring, changing political geographies, and migration.
Components: Lecture
Attributes: SB - Social Behavior Science

GEO 251(3) Course ID: 000659
Weather and Climate
A survey of the atmospheric controls associated with local, regional, and global weather and climate variability. Includes fundamental coverage of the physics and chemistry of energy, gases, pressure and moisture, with a goal of promoting understanding of general weather analysis and forecasting, severe storms, atmospheric pollution, descriptive climatology, and global climate change. Prerequisite: GEO 130 or consent of instructor.
Components: Lecture
Attributes: SN - Science

GER 101(4)
Elementary German I
Includes fundamentals of German with development of the four basic skills: reading, writing, listening, and speaking.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

GER 102(4)
Elementary German II
Continues the fundamentals of GER 101 with further development of the four basic skills: reading, writing, listening, and speaking. Prerequisite: GER 101 or Consent of Instructor.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

GER 201(3)
Intermediate German I
Includes the systematic review of grammar and furthering of reading, writing, listening, and speaking skills based upon cultural and literary materials. Prerequisite: GER 102, or equivalent or placement test.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

GER 202(3)
Intermediate German II
Continues the study of Intermediate German through grammar, reading, and oral practice. Prerequisite: GER 201 or equivalent or placement test.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

GIS Geographic Information Systems
GIS 110(3) Course ID: 004761
Spatial Data Analysis and Remote Sensing Techniques
Introduces spatial analysis, the interpretation of map data, and the use of handheld Global Positioning Systems to collect data. Intended for those interested in a career in civil engineering or surveying. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

GIS 120(3) Introduction to Geographic Information Systems
Presents a comprehensive survey of the fundamental concepts of GIS, providing students a command over the software to import layer and vector data into a GIS and to conduct simple analyses over their data. Intended for those with limited experience with GIS who are exploring career opportunities in the field. Prerequisite: GIS 110. Lecture: 3 credits (45 contact hours).
Components: Lecture

GIS 145(3)
Remote Sensing
Introduces remote sensing of the earth with topics that include the physical principles of remote sensing, history and future trends, sensors and their characteristics, image data sources, and image classification and analysis techniques. Prerequisite or Co-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

GIS 210(3) Advanced Topics in GIS
Explores advanced topics in GIS. Teaches students how to create and import geodatabases into a GIS, edit and create new vector and raster data, build layouts for presentation purposes and manipulate tabular data. Exposes students to various extensions within the software in order to conduct advanced analyses on their data. Prerequisite: GIS 120. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

GIS 255(3) Course ID: 016882
Geospatial Programming
Examines customization of GIS software applications by way of modified service interface elements while covering topics in theory and implementation of the various scripting languages currently used. Prepares students to solve geospatial problems and streamline GIS workflows through the creation and modification of scripts. Pre-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

GEO 260(3) Course ID: 016883
Geospatial Web Mapping
Introduces the design, publishing, optimization and maintenance of geospatial servers, and basic geospatial web services and applications. Includes an introduction to browser and mobile enabled interactive applications. Pre-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

GLY 101(3) Course ID: 000878
Physical Geology
Introduces the principles of physical geology, including study of minerals and rocks, volcanoes and earthquakes, plate tectonics, and the landforms of Earth’s surface. Requires concurrent enrollment in GLY 111.
Components: Lecture
Attributes: SN - Science

GLY 102(3) Course ID: 000757
Historical Geology
Covers the history of the Earth: its origin as part of the solar system, and subsequent evolution of the atmosphere, continents, seas, and life as interpreted from the rock record. Includes in addition to lecture illustrations, field trips and out-of-class exercises. Gives attention to the development of the basic principles used in interpretation. Prerequisite: GLY 101 and GLY 111 or consent of the instructor. Corequisite: GLY 112
Components: Lecture
Attributes: SN - Science

GLY 110(3) Course ID: 002218
Environmental Geology
Introduces and applies basic geological concepts to current environmental issues including the availability and use of water and soil resources, pollution causes, effects and solutions, and causes and prediction of environmental hazards including floods, landslides, subsidence, earthquakes and volcanoes. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

GLY 111(1) Course ID: 000544
Physical Geology Laboratory
Identifies minerals and rocks in hand specimens, interpret landscape features as shown on topographic maps, and study geologic maps. Co-requisite: GLY 101. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

GLY 112(1) Course ID: 000547
Historical Geology Laboratory
Interprets geologic maps and cross-sections, and study important invertebrate fossil groups. Requires one field trip. Prerequisite: GLY 101 and GLY 111 or consent of the instructor. Corequisite: GLY 102. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory
Course Descriptions

GLY 114(1) Course ID: 015662
Environmental Geology Laboratory
Introduces and applies basic geologic concepts in a laboratory setting to current environmental issues, including the availability, use, and testing of water and soil resources, as well as the effects, solutions, and causes of pollution. Pre-requisite or Co-requisite: GLY 110. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

GLY 130(3) Course ID: 003781
Dinosaurs and Disasters: A Brief History of the Vertebrates
Examines dinosaurs’ interactions with their environment, their indirect influence on mammals, and implications for humankind. traces the history of dinosaurs from early vertebrate ancestors to their final extinction, and surveys the evolutionary, paleogeographic, environmental, and possible extraterrestrial causes for their rise to dominance and sudden fall. Lecture: 3 hours.
Components: Lecture
Attributes: SN - Science

GLY 131(1) Course ID: 007361
Dinosaur Laboratory
Augments GLY 130 in analysis and presentation of fossils, scale models, and sedimentary rocks. Investigates specimens and examines features of dinosaurs and related fossil. Uses sedimentary rocks and fossils to interpret ancient environments, dinosaur anatomy, and geologic history. Demonstrates to students how science works. Pre-requisite or Co-requisite: GLY 130. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

GLY 140(3) Course ID: 016864
Introduction to Oceanography
Investigates geologic, physical, biogeochemical, and biologic processes that occur within the oceans of the world. Emphasizes connections between these processes and how those connections interact with our planet’s life. Explores geologic evolution of the ocean floor, dynamic composition of ocean water, lithospheric and atmospheric interactions with the hydrosphere, marine life and ecosystems, and the impact of human activity on marine ecosystems. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

GLY 220(4) Course ID: 000847
Principles of Physical Geology
Learn how the Earth works: an integrated course in physical geology, covering the physical, chemical and biological processes that combine to produce geological processes. Focuses on plate tectonics, earth surface processes, and properties and formation of earth materials. Lab exercises emphasize identification and interpretation of geologic materials, geologic maps and cross sections. Lecture: 3 credits (45 contact hours); Laboratory: 1 credits (30 contact hours).
Components: Lecture
Attributes: SL - Science Laboratory, SN - Science

HCI 200(3) Course ID: 007419
Introduction to Health Care Informatics
Provides the foundation in the discipline of Health Care Informatics (HCI) by introducing basic concepts, historical development, current and future trends in the specialized discipline and the role of the informaticist in health care organizations. Clarifies the skills and knowledge required for successful integration of real-time documentation in health care informatics and management of that technology within the health care system. Pre-requisite: Minimum of an associate degree in a health care applied science or instructor consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

HCI 210(3) Course ID: 007420
Management of Health Care Information and System Security
Provides students with fundamental concepts in the discipline of health care informatics security systems that are required in the management of electronic data. Prepares the student to maintain data information system security within established standards of practice. Pre-requisite: HCI 200 Introduction to Health Care Informatics or Instructor Consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

HCI 220(3) Course ID: 007421
Database Systems In Health Care
Provides students with the concepts that are fundamental to the field of health care informatics database principles. Includes the development of data set management, the importance of accurate data input and mapping information extracted from the health care documentation system. Pre-requisite: HCI 200 Introduction to Health Care Informatics or Instructor Consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

HCI 230(3) Course ID: 007422
Legislatures and Ethics In Health Care Informatics
Presents issues that the health care system faces in relation to legal issues, ethical dilemmas and regulatory and practice standards surrounding the real-time electronic health record and health care information systems. Pre-requisite: HCI 200 Introduction to Health Care Informatics or instructor consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

HCI 240(4) Course ID: 007423
Introduction to Project Management In Health Care Informatics
Teaches project management in health care informatics. Includes the planning and analysis of documentation system needs, implementation, post go-live support of system and upgrades to the system, methodologies for planning and analyzing hardware and software, and support needs during the conversion phase. Includes an informatics project designed to facilitate the student gaining a higher level understanding of processes that are required for a positive project management outcome. Pre-requisite: HCI 210, HCI 220, and HCI 230. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Other

HEO 105(7) Course ID: 001522
Motorgrader Operator
Examines a broad base of skills required to operate heavy equipment with an emphasis on safety. Operation of a Motor-Grader will be learned by students. Prerequisite: DIT 103. Lecture: 7.0 credits (315 contact hours).
Components: Laboratory
Attributes: Technical

HEO 107(7) Course ID: 001576
Utility Tractor Loader Operator
Provides a broad base of skills required to operate heavy equipment with an emphasis on safety. Focuses on job awareness and industry requirements. Permits experience on dump truck and utility tractor loader. Pre-requisite or Co-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HEO 110(7) Course ID: 001577
Power Shovel Backhoe Operator
Presents a background in the operation, maintenance, and safety considerations for a dump truck and power shovel backhoe. Pre-requisite or Co-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HEO 111(7) Course ID: 001524
Bulldozer Operator
Presents a background in the operation, maintenance, and safety considerations for a dump truck and bulldozer. Pre-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HEO 115(7) Course ID: 004571
Hydraulic Excavator Operator
Covers a broad base of skills required to operate heavy equipment safely. Includes how to operate a hydraulic excavator safely. Pre-requisite: HEO 151. Lecture: (45 contact hours). Lab: (180 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HEO 125(3) Course ID: 001525
Special Problems I
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite Or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

HEO 151(6) Course ID: 015678
Heavy Equipment Operating I
Instructs students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains techniques of operation such as digging, ditching, sloping, stripping, grading, backfilling, clearing fields, and foundation excavating. Pre-requisite or Co-requisite: DIT 103. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

HEO 201(6) Course ID: 001579
Heavy Equipment Operating II
Reinforces material first presented in HEO 151. Provides intermediate instruction for students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains intermediate techniques of operation such as digging, ditching, sloping, stripping, grading, backfilling, clearing fields, and foundation excavating. Pre-requisite or Co-requisite: DIT 103. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

HEO 225(3) Course ID: 001528
Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Instructs all facets of project control. Pre-requisite Or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

HEO 251(8) Course ID: 015680
Heavy Equipment Operating III
Provides advanced instruction for students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains advanced techniques of operation such as digging, ditching, sloping, stripping, grading, backfilling, clearing fields, and foundation excavating. Pre-requisite or Co-requisite: DIT 103. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

HEO 252(8) Course ID: 015681
Special Problems III
Reinforces material presented in HEO 151 and 201. Provides advanced instruction for students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains advanced techniques of operation such as digging, ditching, sloping, stripping, grading, backfilling, clearing fields, and foundation excavating. Pre-requisite or Co-requisite: DIT 103. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
HFL 100(3) Course ID: 015593
Introduction to Healthcare Facility Management
Introduces students to Healthcare Facility Leadership by presenting an overview of the history and development of healthcare engineering. The student will learn the importance of compliance with the various codes and standards applicable to the healthcare facility environment; explore the driving factors affecting the operations and maintenance of health care facilities; review the complexity of delivering engineering in a patient centered environment; gain understanding of the complex structure and reporting relationships that exist in the healthcare industry; understand how the facility environment impacts regulatory requirements, clinical needs, and financial bottom line of healthcare; and gain an understanding of his/her role within the facility management department and the hospital setting. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 110(2) Course ID: 015594
Introduction to Healthcare Industry
Introduces students to the healthcare industry by examining healthcare reporting relationships, organizational structures, personnel, facility types, department configurations, terminology, regulatory environment, and accreditation process. The course will also examine industry shifts related to an aging population and healthcare law changes. The student will have a clearer understanding of how to navigate the healthcare industry based on size and complexity. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

HFL 120(2) Course ID: 015663
Infection Control and Prevention
Examines the historical and evolving infection control complexities from both a clinical and physical environment perspective. Reviews changes the industry has taken to address this growing healthcare industry challenge. Studies how the physical environment and engineering practices during construction and maintenance impact infection control. Reviews infection control risk assessments and prevention documentation and techniques. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

HFL 130(3) Course ID: 015664
Compliance, Codes and Standards I
Introduces students to codes & standards, regulatory, and accreditation agencies in Healthcare. Takes into consideration local, state, and federal regulatory bodies such as Occupational Safety and Health Administration (OSHA), National Fire Protection Association (NFPA), Building Owners and Managers Association (BOMA), Center for Medicare and Medicaid Services (CMS), American Society for Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), International Organization for Standardization (ISO), National Electrical Code (NEC), International Building Code (IBC), The Joint Commission, and the DNV. Examines the facility leader’s role in coordination and participation in the accreditation and regulatory survey processes. Evaluates the role of a coordinator in participating in emergency management drill and training. Develops fire training and drill coordination documentation. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 140(2) Course ID: 015665
Maintenance and Operations I
Examines and reviews mechanical, electrical, plumbing, medical gas, fire protection, building envelope, medical, steam, and security systems that comprise most healthcare facilities. Reviews computer systems and software such as energy, fire systems, work order systems, and CAD/BIM used by facility engineering. Understands equipment inventory, entry control, and disposition. Develops maintenance program for buildings, equipment, utilities, and grounds. Reviews energy management and benchmarking. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 150(2) Course ID: 015666
Planning, Design and Construction I
Covers project management delivery from concept, development, design, contracting, method, bidding, budgeting, equipment acquisition, specifications, and meeting management. Develops and reviews current Infection Control Risk Assessment (ICRA) practices and documentation. Develops and reviews Interim Life Safety Measures (ILSM) practices and documentation. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 230(3) Course ID: 015667
Compliance, Codes and Standards II
Examines the major codes, standards and regulatory rules that apply to the healthcare industry. Examines. National Fire Protection Association (NFPA) 101, 110, 99, 25, 20, 10, Facility Guidelines Institute (FGI) Guidelines; The Joint Commission Standards for accreditation; and how to maintain standard specific documentation and checklists for accreditation surveys. Develops and maintains medical equipment and utility system programs. Develops and conducts internal rounds and surveys. Develop standard specific policies and procedures, such as National Fire Protection Association (NFPA) 99 electrical equipment safety inspection requirements. Pre-requisite: HFL 130 Compliance, Codes and Standards I. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 240(3) Course ID: 015668
Maintenance and Operations II
Examines the administration and coordination of work order processes to include preventive maintenance, corrective maintenance, moves, and projects. Applies equipment risk assessments in developing a maintenance program. Tests, monitors, and documents air quality, air exchange, and pressure relationships. Maintains control access and key control systems. Manages policies and procedures. Develops competency based training programs. Manages low voltage systems ((Nurse call, Closed Circuit Television System (CCTV), patient monitoring, Radio Frequency Identification (RFID) etc.)). Understands Performance Improvement (PI) processes. Pre-requisite: HFL 140 Maintenance and Operations I. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 250(3) Course ID: 015669
Planning, Design and Construction II
Examines the management, planning, monitoring, reporting, and closing out of projects. Emphasizes the management of drawing revisions, commissioning, equipment documentation, and hand off training. Details Change Order Request (COR) and Request For Information (RFI), as well as, reviewing the needs and requirements for spares and stocking. Pre-requisite: HFL 150 Planning, Design and Construction I. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 260(3) Course ID: 015670
Healthcare Facilities Leadership Capstone I
Examines and applies Performance Improvement (PI) activities in healthcare engineering operations and maintenance, and project environment. Develops goals using S.M.A.R.T guidelines (Specific, Measureable, Assignable, Realistic, and Time bound). Develops and manages capital budgets, operating budgets, recommends capital programs, generates financial, productivity and performance dashboards. Develops and implements equipment and systems training programs. Develops and monitors customized measures, indicators, and trends from computerized maintenance data. Co-requisite: HFL 140 Maintenance and Operations I. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 270(3) Course ID: 015671
Healthcare Facilities Leadership Capstone II
Examines management of related healthcare engineering roles, such as fire safety, environment of care, waste management, emergency management, protection services, and environmental services. Examines management of Human Resource functions (e.g. competencies, disciplinary action, hiring, performance appraisals, terminations, scheduling, staff orientation, and job descriptions). Performs and participates in organizational strategic planning. SWOT (strengths, weaknesses, opportunities, threats) in report writing and presentations. Examines the importance of networking and partnerships (e.g. peers, local authorities, state authorities, and industry experts). Pre-requisite: HFL 260 Healthcare Facilities Leadership Capstone I. Co-requisite: HFL 240 Maintenance and Operations II. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HIM 102(3) Course ID: 004303
Archives Studies: Characteristics & Overview
This course provides an introduction to the profession of archives studies. In addition to the history, development, and nature of work in the profession, the basics of collections management and development, intellectual control, preservation, conservation, and technological applications will be presented.
Components: Lecture Attributes: Technical

HIM 104(3) Course ID: 004304
Museum Studies: Characteristics & Overview
This course provides an introduction to the profession of museum studies. Course topics include the history, development, and nature of work in the profession; the basics of collections management and development; intellectual control; exhibit design; preservation; and technological applications.
Components: Lecture Attributes: Technical

HIM 106(3) Course ID: 004305
Records Management: Characteristics & Overview
This course provides an introduction to the profession of records management. In addition to the history, development, and nature of work in the profession, the course will present the basics of files and forms management, records inventory and analysis, scheduling and reprography, electronic records and record center operation.
Components: Lecture Attributes: Technical

HIM 210(3) Course ID: 004306
Archives Studies: Appraisal & Accessioning
This course provides an in-depth examination of the information appraisal and accession process in archives work. Topics covered include intellectual content, documentation strategies, appraisal theories, and accessioning practices. Students are expected to complete an accession record, including records transmittal form, deed of gift, and accession form. Prerequisite: HIM 102.
Components: Lecture Attributes: Technical

HIM 214(3) Course ID: 004308
Archives Studies: Preservation & Conservation
This course provides an in-depth analysis of the conservation and preservation issues confronting archive staff. Included in this course are the impact of environmental conditions upon collections, problems associated with various records media and formats, conservation and working with conservators, security, and emergency mitigation and response procedures. Each student is expected to prepare an archives emergency response plan. Prerequisite: HIM 102.
Components: Lecture Attributes: Technical
HIM 216(3)  Course ID: 004309
Archives Studies: Automation & Electronic Records
This course is designed to provide students with an in-depth understanding of automation practices for archives. Topics covered in this course include database theory, design and development, as well as data field content and structure as they relate to archives automation. In addition to creating a complete archival catalog record, students will generate an automated accession report, collection description with appended image, and container list. Prerequisite: HIM 102.
Components: Lecture
Attributes: Technical

HIM 230(3)  Course ID: 004310
Museum Studies: Collections Care & Management
This course provides an in-depth analysis of the curatorial needs of museum collections. Topics covered include collection policies and development, accessioning, registration, preservation, exhibiting and ethical consideration regarding deaccessioning and collection sales. Prerequisite: HIM 104.
Components: Lecture
Attributes: Technical

HIM 232(3)  Course ID: 004311
Museum Studies: Conservation and Preservation
This course provides an in-depth analysis of the conservation and preservation issues confronting museum staff. Included in this course are the impact of environmental condition upon collections, problems associated with historic structures, artifact conservation and working with conservators, security, and emergency mitigation and response procedures. Each student is expected to prepare a museum emergency response plan. Prerequisite: HIM 104.
Components: Lecture
Attributes: Technical

HIS 101(3)  Course ID: 004493
World Civilization I
Presents a multicultural survey of world cultures and global issues from ancient times. Lecture: 3 credits (45 contact hours). Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 102(3)  Course ID: 004675
World Civilization II
Presents a multicultural survey of world cultures and contemporary global issues from 1600 to the present. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 104(3)  Course ID: 000860
A History of Europe Through the Mid-Seventeenth Century
Surveys the development of European politics, society, and culture from the beginnings of civilization through the age of Religious Conflict. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 105(3)  Course ID: 000834
A History of Europe from the Mid-Seventeenth Century to the Present
Surveys the development of European politics, society, and culture from the Age of Absolutism to the present. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 106(3)  Course ID: 000532
Western Culture: Science and Technology I
Surveys the interactions of science and technology with the social and cultural development of Western civilization to the Industrial Revolution. Emphasizes the values in scientific inquiry as compared with other kinds of inquiry and the importance of science and technology in modifying social organization and human expectations.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 107(3)  Course ID: 000535
Western Culture: Science and Technology II
Surveys the interactions of science and technology with the social and cultural development of Western civilization since the Industrial Revolution. Emphasizes the values in scientific inquiry as compared with other kinds of inquiry and the importance of science and technology in modifying social organization and human expectations.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 108(3)  Course ID: 000542
History of the United States Through 1865
Examines key political, economic, and social topics that have significantly influenced the American experience from the pre-colonial period through the Civil War era. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

HIS 109(3)  Course ID: 000171
History of the United States Since 1865
Examines key political, economic, and social topics that have influenced significantly the American experience from Reconstruction through the contemporary era. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

HIS 120(3)  Course ID: 000348
The World at War, 1939-45
Covers a global overview of the events of the Second World War, including consideration of the conflicts military, diplomatic, political, social, and economic dimensions.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 202(3)  Course ID: 000828
History of British People to the Restoration
Surveys the major political, social, economic, and cultural developments in British history from the pre-Roman era through the Stuart Dynasty. Includes examination of such topics as the Norman conquest, the Plantagenet Dynasty, the Hundred Years War, War of the Roses, the Tudors Monarchs, the Protestant Reformation, the Stuarts Kings, Puritan Revolution, and the Restoration.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 203(3)  Course ID: 000516
History of the British People Since the Restoration
Covers the major political, social, economic, and cultural developments in British history from the Stuart period to the present. Includes examination of such topics as the Glorious Revolution, Imperial Wars, American Revolution, Napoleonic Wars, Industrial Revolution, Imperialism, World War I, Great Depression, World War II, Cold War, Decolonization, Post-War Britain, and the European Union.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 204(3)  Course ID: 000439
History of Kentucky
Surveys the chief periods in Kentucky’s growth and development from 1750 to the present focusing on the social, economic, cultural, and political trends of each region.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 205(3)  Course ID: 082219
History of Colonial Latin America
Surveys the social, economic, political and cultural development of Latin America from the fifteenth century to 1810 with an emphasis on pre-Columbian societies, the Iberian kingdoms in the Age of Expansion, the conquest and colonization of the indigenous cultures of the New World, the establishment of Spanish and Portuguese institutions, the relations between the Church and the State, the encomienda and the hacienda, slavery and the impact of the Bourbon Reforms on Latin America.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 207(3)  Course ID: 002220
History Modern Latin America, 1810 to Present
Covers the history of the Latin American nations focusing on their social, economic, political and cultural development. Emphasizes the history of the independence movements, nation building, the struggle for modernization, dependency and the phenomenon of revolution since 1810.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 215(3)  Course ID: 015616
Historical Perspectives on Prisons and Police Work
Examines historical development of law codes, police work and prisons since the ancient world, with emphasis on the early modern period to the present. Develops an understanding of current practices in criminology, placing emphasis on the evolving conceptions of the causes of and cures for criminal behavior, and the professionalization of police and corrections personnel. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Other

HIS 221(3)  Course ID: 007418
Native American History: Pre-Contact to 1865
Surveys the struggle of Native Americans from pre-colonial times to 1865. Emphasizes the indigenous Native American culture and society, the Columbian and biological exchange, Indian-Anglo cultural interactions, the construction and reconstruction of Indian identities, U.S. Indian policy development, and forced Indian removal. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 222(3)  Course ID: 007418
Native American History: 1865 to Present
Surveys the struggle of Native Americans from 1865 to the present times. Emphasizes the indigenous Native American culture and society, Indian-Anglo cultural interactions, the construction and reconstruction of Indian identities, and the struggles for the Great Plains and the Great Basin. Assesses the U.S. Indian policy development in relation to forced Indian removal, Americanization plan, educational assault on Indian children, termination policy, and sovereignty. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 223(3)  Course ID: 000439
History of Kentucky
Surveys the chief periods in Kentucky’s growth and development from 1750 to the present focusing on the social, economic, cultural, and political trends of each region.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 224(3)  Course ID: 000439
History of Kentucky
HIS 247(3) Course ID: 000651
History of Islam and Middle East Peoples, 500-1250 A.D.
Surveys the origins and development of the Islamic civilization from the time of the Prophet Muhammad to 1250, with special emphasis on the role of the Arab, Iranian, and Turkic peoples.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 248(3) Course ID: 000654
History of Islam and Middle East Peoples, 1250 to the Present
Surveys the religion and institutions of the Islamic world in the Middle East with emphasis on the Mongol, Ottoman, Safavid, and Qajar Empires. Includes the demise of these empires, the response of the Middle East peoples to European imperialism, and the development of the Middle East since 1250.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 254(3) Course ID: 000670
History of Sub-Saharan Africa
Surveys the major social, religious, cultural, economic, and political trends in Sub-Saharan African history since the 16th century. Includes the impact of the Atlantic slave trade, European imperialism, and 20th century wars on Sub-Saharan Africa.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 260(3) Course ID: 000680
African American History to 1865
Studies the African American experience through the Civil War. Examines African heritage, slavery, and growth of African American institutions.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 261(3) Course ID: 000693
African-American History 1865 - Present
Examines the African American experience from Reconstruction to the present, with emphasis on the rise of segregation, the Civil Rights Movement, and race relations into the twenty-first century.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 265(3) Course ID: 000705
History of Women in America
Surveys the history of American women, with particular emphasis on the mid-19th century to the present. Includes the major themes of family, work, social ideas about women, and feminism. Prerequisite: HIS 109 or consent of instructor.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 266(3) Course ID: 005481
History of American Women to 1920
Emphasizes the fight for women's suffrage to 1920. Includes American women, immigrant women, the changing nature of the family and work, and societal ideas about women. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

HIS 267(3) Course ID: 005482
History of American Women from 1920
Emphasizes equal rights and the civil rights movements. Includes the rejection of feminism in the 1920s, and 1970s, the changing nature of the family and work, and societal ideas about women. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HIS 271(3) Course ID: 005262
Medieval Europe
Surveys European history from the fourth century through the fifteenth century. Lecture: 3 credits (45 contact hours).
Prerequisite: Sophomore standing.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 295(3) Course ID: 000749
East Asia to 1800
Presents a survey of Chinese, Japanese, and Korean history from the earliest times to 1800. Emphasizes political, economic, social, and intellectual developments.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 296(3) Course ID: 000753
History of Asia II
Surveys the major civilizations of Asia. Focuses on the key political, social and cultural developments of the major peoples from the beginnings of western influence in Asia to the present. Prerequisite: Sophomore standing or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 299(1 - 3) Course ID: 005221
Instructor Consent Required
Special Topics in History: (Topic)
Provides an in-depth study of a selected topic/area in History. Lecture: 1-3 credits (15-45 contact hours).
Prerequisite: Sophomore standing or Consent of Instructor.
Components: Lecture
Attributes: Other

HIT Health Information Technology

HIT 100(3) Course ID: 004260
Introduction to Health Information Technology
Includes history, organization, financing and delivery of health care services within a variety of settings. Explores the roles of a health information professional, an introduction to legal aspects of insurance billing and the role of the State Insurance Commission. Covers information on the generic components of the content, structure, collection, maintenance, and dissemination of health care data and how these components relate to record systems and documentation standards. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or Release of Information Data Specialist Certificate or by special permission of the Program Coordinator and Computer Literacy. Pre-requisite Or Co-requisite: [BIO 135 or BIO 137] and (CLA 131 or AHS 115 or MIT 103]. Minimum grade of C. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
HIT 104(3) Course ID: 004262
Pathophysiology of Human Disease
An overview of pathophysiology content and teaching materials as they relate to the health information field. A review of disease terminology, pathology, clinical presentation, surgical and diagnostic procedures and treatment modalities. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator and ([CLA 131 or AHS 115 or OST 103) and (BIO 130 with a grade of "C" or better), Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

HIT 105(4) Course ID: 007081
Pathophysiology / Pharmacology for Health Information Professionals
Provides an overview of pathophysiology content, review of disease terminology, and clinical presentation with the application of pharmacology to treat human diseases as it relates to the field of health information technology. Pre-requisite or Co-requisite: HIT 100 and (BIO 135 or BIO 137) and (CLA 131 or AHS 115 or HIT 103), Minimum grade of C. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

HIT 106(2) Course ID: 004263
Pharmacology for Health Information Professionals
Application of pharmacology to the treatment of human diseases and disorders as it relates to the field of health information technology. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator and ([CLA 131 or AHS 115 or OST 103) and (BIO 137) with a grade of "C" or better), Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

HIT 109(4) Course ID: 007083
Clinical Classification Systems I
Applies current government-mandated diagnosis and procedure coding systems in a health care setting. Pre-requisite: HIT 105. Minimum grade C. Pre-requisite or Co-requisite: BIO 139 (if BIO 137 taken). Minimum grade C. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

HIT 110(2) Course ID: 004265
Legal & Ethical Issues in Health Information
Includes legal principles and issues that govern health information management and patient medical records. Covers ethical issues as they relate to the security and dissemination of patient health information and corporate compliance programs. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or Release of Information Data Specialist or by special permission of the Program Coordinator, Pre-requisite Or Co-requisite: HIT 100. Minimum grade of "C". Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

HIT 112(3) Course ID: 004266
Reimbursement Methodologies
Introduces the uses of coded data and health information reimbursement and payment systems appropriate to all health care settings including managed care. Includes a history of major U.S. insurance developments. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate or by special permission of the Program Coordinator. (Computer/Digital Literacy and (BIO 135 or BIO 137) and HIT 100 and HIT 105). Minimum grade of C. Pre-requisite Or Co-requisite: BIO 139 (if BIO 137 was taken). Minimum grade of C. Lecture 2.5 credits (37.5 contact hours), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture Attributes: Technical

HIT 114(2) Course ID: 004267
Clinical Practicum I
Includes the clinical practice of medical records review and documentation within a health information department. Provides students with the opportunity to assist personnel in the legal and ethical collection and dissemination of health care data including the use of registries and indexes. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Computer Literacy and [BIO 139 and HIT 100 and HIT 104 and HIT 106) with a grade of "C" or better]. Practicum: 2.0 credits (90 contact hours).
Components: Practicum Attributes: Technical

HIT 200(3) Course ID: 004268
Information Systems in Health Care
Covers the concepts of computer technology related to the healthcare industry and the tools and techniques for collecting, storing, retrieving, and analyzing health care data. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or by special permission of the Program Coordinator and (HIT 109 and HIT 110). Minimum grade of "C". Pre-requisite Or Co-requisite: CIT 130 or OST 240), Minimum grade of "C". Lecture: 2.5 credits (37.5 contact hours), Laboratory: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture Attributes: Technical

HIT 202(3) Course ID: 004269
Clinical Classification Systems II
Includes Current Procedural Terminology (CPT) coding system and the study of hospital based reimbursement issues. Uses a microcomputer and software to apply medical coding procedures. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or by special permission of the Program Coordinator. (Computer/Digital Literacy and HIT 109), Minimum grade C. Pre-requisite or Co-requisite: BIO 139 if BIO 137 was taken). Minimum grade of C. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

HIT 204(2) Course ID: 004270
Quality Assurance In Health Information
Principles of quality assessment as they relate to health information technology. Includes data collection and analysis, implementation of quality improvement processes, and a review of regulatory and accrediting organization requirements. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Successful completion of (HIT 108 and HIT 110 and HIT 112 and HIT 114) with a grade of "C" or better). Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

HIT 205(3) Course ID: 007084
Quality Mgmt & PI - Health Info
Examines principles of performance improvement as it relates to health information technology. Integrates data collection, analyses, evidence-based care, implementation of performance improvement processes, and examines regulatory, accrediting organization, and payor requirements including payment. Pre-requisite or Co-requisite: HIT 109 and HIT 110, Minimum grade of C. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HIT 206(2) Course ID: 004271
Clinical Classification Systems III
This course introduces the advanced application of clinical classification systems in the reimbursement for health care services. Included in the course will be a review of fraud, abuse and regulatory agencies. Students will use a microcomputer and software to apply medical coding procedures. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Completion of HIT 202 with a grade of "C" or better, Lecture: 2.0 hours. Components: Laboratory Attributes: Technical

HIT 207(3) Course ID: 007085
Clinical Classification Systems III
Introduces the advanced application of clinical classification systems in the reimbursement for health care services and specialty systems such as RBRVS, OASIS, RUGs, Cancer Registry, etc. Reviews fraud, abuse, and regulatory agency requirements relating to coding and billing. Pre-requisite: HIT 109 and HIT 202. Minimum grade of "C". Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

HIT 208(1) Course ID: 004272
Clinical Coding Practicum
Introduces the student to the clinical practice of medical record coding procedures. Provides an opportunity to observe professional and ethical behavior standards within a health information department, code medical records for reimbursement, and practice appropriate security measures. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Successful completion of HIT 108, HIT 110, HIT 112, HIT 202, HIT 206 with a grade of "C" or better, Practicum: 1.0 credits (90 contact hours).
Components: Practicum Attributes: Technical

HIT 210(2) Course ID: 004273
Health Care Statistics
Use, collection, arrangement, presentation and verification of health care data. Fundamental concepts of descriptive statistics, data validity, reliability and the appropriate use and interpretation of applied healthcare statistics. Prerequisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. MT 110 or MT 150) and (CIS 130 or OST 240) and (HIT 200 and HIT 202) with a grade of "C" or better). Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

HIT 211(3) Course ID: 007086
Health Care Management and Statistics
Introduces the principles of organization, supervision, leadership, motivation, and team building within the health information environment. Applies concepts of descriptive statistics, data validity, reliability, and the appropriate use and interpretation of applied healthcare statistics including the use, collection, arrangement, analysis, presentation and verification of health care data. Pre-requisite: HIT 109 and HIT 110. Minimum grade of "C". Pre-requisite or Co-requisite: HIT 112. Minimum grade of "C". Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HIT 212(2) Course ID: 004274
Health Care Organization and Supervision
This course introduces the principles of organization, supervision, leadership, motivation, and team building within the health information environment. Included in the course will be a review of financial performance, ergonomics, contracts, marketing, education, and training. Prerequisite: Admission to the Health Information Technology Program or by special permission of the Program Coordinator. Successful completion of HIT 200, HIT 202, and HIT 204 with a grade of "C" or better, Lecture: 2 hours.
Components: Lecture Attributes: Technical
HIT 214(3)  Course ID: 004275  
**Clinical Practicum II**  
This course introduces the student to the clinical practice of medical records review, documentation, and supervision within a health information department. The student will observe and assist personnel in all areas of job responsibility within the Health Information Management department. Prerequisite: Admission to the Health Information Technology Program or by special permission of the Program Coordinator. Completion of HIT 200, HIT 202, and HIT 204 with a grade of “C” or better. Laboratory: 9 hours.  
Components: Practicum  
Attributes: Technical

HIT 215(4)  Course ID: 007087  
**Clinical Practicum**  
Introduces the student to the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Observes and assists personnel in assigned areas of job responsibility within the HIM Department. Provides student with onsite project. Exposes student to HIM roles in other departments (e.g. quality, CDM, Cancer Registry, compliance, risk management). Pre-requisite: (HIT 200 and HIT 202 and HIT 204, Minimum grade of “C”) or Consent of Program Coordinator. Practicum: 4.0 credits (180 contact hours).  
Components: Practicum  
Attributes: Course Also Offered in Modules, Technical

HIT 299(0.5 - 4)  Course ID: 007090  
**Selected Topics in Health Information Technology**  
(Topic)  
Addresses various health information technology topics, issues, and trends. Includes topics that may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of four credit hours. Lecture: 0.5 - 4.0 credits (7.5 - 60.0 contact hours). Lab: 0.5 - 4.0 credit hours (15 - 20 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

HIT 2151(2)  Course ID: 007088  
**Clinical Practicum I**  
Continues the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Provides observation and assists personnel in assigned areas of job responsibility within the HIM Department. Provides student with onsite project. Exposes student to HIM roles in other departments (e.g. quality, CDM, Cancer Registry, compliance, risk management). Pre-requisite: (HIT 200 and HIT 202 and HIT 204, Minimum grade of “C”) or Consent of Program Coordinator. Practicum: 2.0 credits (90 contact hours).  
Components: Practicum

HIT 2152(2)  Course ID: 007089  
**Clinical Practicum II**  
Introduces the student to the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Provides observation and assists personnel in all assigned areas of job responsibility within the HIM Department. Pre-requisite: HIT 200 and HIT 202 and HIT 204, Minimum grade of C) or Consent of Program Coordinator. Practicum: 2.0 credits (90 contact hours).  
Components: Practicum

HMS  Human Services  
**HMS 101(3)  Course ID: 000901**  
**Human Services Survey**  
Examines community human service agencies regarding their organization, service delivery system, staffing patterns, and funding sources. Explores the origin and development of the social welfare system as well as social welfare policy. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

**HMS 102(3)  Course ID: 000777**  
**Values of Human Services in a Contemporary Society**  
Examines the values and ethics of human service professions. Encourages a personal philosophy of client intervention, including the development of a professional value base, achieved through the examination of major social problems and issues. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

**HMS 235(3)  Course ID: 000818**  
**Teaching Persons with Mental Retardation**  
Introduces mental retardation with emphasis on understanding and teaching the mentally retarded. Prerequisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

**HMS 245(3)  Course ID: 016148**  
**Psychiatric Mental Health Technician**  
Prepares students for employment as psychiatric aides or psychiatric technicians. Includes a review of nursing assistant skills, psychopathology, DSM diagnostics, strengths perspective, bio-psycho-social assessments, and psychotropic medications. Explores the responsibilities of mental health technicians who work under the supervision of a psychiatrist, registered nurse, or social worker; as well as participate in the development and implementation of therapeutic treatment plans for persons with mental disorders; particularly those receiving treatment in an inpatient setting. Pre-requisite: NAA 100 or MNA100, PSY 110 and HMS 103 with a grade of “C” or better or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

**HNR Honors**  
**HNR 101(3)  Course ID: 004909**  
**Intro to Contemporary Thought**  
Introduces the development and impact of contemporary social, scientific, and philosophical thought from an interdisciplinary perspective. Gives attention to various historical and modern figures, relating their ideas and theories to our contemporary understanding of a variety of issues. Prerequisite: Admission in the Honors program. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: AH - Arts and Humanities
HOS 282(3) Course ID: 002370
Tourism Marketing
Examines how and why tourists make destination choices, and learns how to develop a strategic marketing system that emphasizes your destination’s distinctive appeal. Answers questions of how to assess visitor markets, gather and analyze data, reduce risk and gain competitive advantages, and turn analysis into sound decisions. Applies knowledge from case studies, and practical tips for stretching marketing dollars through better monitoring, cost controls, and evaluation. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HOS 298(2) Course ID: 006966
Field Experience Practicum
Provides an opportunity for the refinement of techniques and skills acquired in the previous historic preservation courses through non-compensated, supervised on-the-job experience or campus work assignments related to the student’s educational and career training objectives. Pre-requisite: ISX 100 or ISX 101 or Consent of Instructor. Practicum: 2.0 credits (90 contact hours).
Components: Practicum
Attributes: Technical

HOS 205(3) Course ID: 002365
Introduction to Hospitality Management
Introduces an overview of the hospitality industry. Examines the historical perspective and tracks current events. Examines the structure of the industry including chains, franchising, ownership, and management. Explores the inner workings of various components of lodging, foodservice and entertainment organizations. Demonstrates real-world application through industry examples and case studies which are used extensively. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HOS 200(3) Course ID: 002367
Attributes: Technical

HOS 201(3) Course ID: 000898
The Early and Modern World
From the development of the modern scientific method through mid-19th century industrialism; an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Prerequisite: Membership in the Honors Program.
Components: Lecture
Attributes: AH - Arts and Humanities

HON 101(3) Course ID: 000892
The Old World
From Greek and Roman antiquity to the early Christian centuries: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Prerequisite: Membership in the Honors Program.
Components: Lecture
Attributes: AH - Arts and Humanities

HON 102(3) Course ID: 000766
The Medieval and Renaissance World
From the Middle Ages through the Reformation: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Written assignments required. Prerequisite: Membership in the Honors Program.
Components: Lecture
Attributes: AH - Arts and Humanities

HOS 100(3) Course ID: 002365
Introduction to Hospitality Management
Introduces an overview of the hospitality industry. Examines the historical perspective and tracks current events. Examines the structure of the industry including chains, franchising, ownership, and management. Explores the inner workings of various components of lodging, foodservice and entertainment organizations. Demonstrates real-world application through industry examples and case studies which are used extensively. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HOS 101(3) Course ID: 000888
Health Physics I
Introduces the principles of health physics to include atomic and nuclear physics, radioactivity, and ionizing radiation and its biological effects. Pre-requisite: (MAT 150 and PHY 152) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HOS 102(3) Course ID: 000762
Health Physics II
Introduces internal and external dosimetry, shielding, radiation detection, and environmental monitoring. Pre-requisite: HPH 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HPT 101(2) Course ID: 006963
Introduction to Historic Preservation
Introduces historic preservation theory, history, and standards of practice through national and local case studies; related national and local agencies, organizations and legislation; and research of early American architecture. Co-requisite: HPT 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HPT 102(2) Course ID: 006965
Window Restoration and Repair
Presents the processes for the removal, repair, and reinstallation of windows in historic properties, including types and components, energy efficiency, safe work practices, basic tools, and glazing techniques. Pre-requisite: ISX 100 or ISX 101 or Consent of Instructor. Lecture/Lab: 2.0 credits (52.5 contact hours).
Components: Lecture

HPT 201(4) Course ID: 006966
Roof Restoration and Repair
Covers pre-War World II roof designs and materials with a focus on repair and maintenance of roofs on historic buildings. Emphasizes fall protection systems and setup procedures for scaffolding and ladders. Pre-requisite: Consent of Instructor. Lecture/Lab: 2.0 credit hours (52.5 contact hours).
Components: Lecture

HPT 202(2) Course ID: 006967
Field Experience Practicum
Provides an opportunity for the refinement of techniques and skills acquired in the previous historic preservation courses through non-compensated, supervised on-the-job experience or campus work assignments related to the student’s educational and career training objectives. Pre-requisite: (ISX 100 or ISX 101) and HPT 100 and HPT 101 or Consent of Instructor. Practicum: 2.0 credits (90 contact hours).
Components: Practicum
Attributes: Technical

HPT 101(2) Course ID: 005299
Introduction to Historic Preservation Lab
Provides an opportunity to practice historic preservation theory through on-site research, site surveys and recording techniques with an emphasis on assessing and planning rehabilitation and maintenance. Co-requisite: HPT 100. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

HPP 100(3) Course ID: 000885
Health Physics Fundamentals
Introduces the fundamentals of atomic and nuclear physics, algebra, unit analysis, and team dynamics required within an organization that handles radioactive substances. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HPP 101(3) Course ID: 000888
Health Physics I
Introduces the principles of health physics to include atomic and nuclear physics, radioactivity, and ionizing radiation and its biological effects. Pre-requisite: (MAT 150 and PHY 152) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HPP 102(3) Course ID: 000762
Health Physics II
Introduces internal and external dosimetry, shielding, radiation detection, and environmental monitoring. Pre-requisite: HPH 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HPP 120(3) Course ID: 000346
Radiation Biology
Examines the cellular response, pathology, and short- and long-term effects of ionizing radiation on living tissue. Prerequisite: (BIO 112 and BIO 113) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HPP 201(4) Course ID: 000885
Nuclear Instrumentation and Measurement I
Introduces the principles of operation and use of portable radiation survey instruments, counting room instrumentation including GM and proportional counters, and liquid scintillation. Introduces gamma ray spectroscopy. Pre-requisite: HPH 102 Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

HPP 202(4) Course ID: 000824
Nuclear Instrumentation and Measurement II
Introduces multi-channel analyzers in alpha, beta and gamma spectroscopy. Involves techniques to identify and quantify radioactive materials. Pre-requisite: HPP 201. Lecture/Lab: 4.0 credit hours (90 contact hours).
Components: Lecture
Attributes: Technical

HPP 246(2) Course ID: 000515
Environmental Law
Surveys federal and state environmental legislation, the role of governmental agencies responsible for implementation of statutes, and simulations of regulation enforcement situations. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HPP 100(3) Course ID: 000886
Nuclear Instrumentation and Measurement I
Introduces the principles of operation and use of portable radiation survey instruments, counting room instrumentation including GM and proportional counters, and liquid scintillation. Introduces gamma ray spectroscopy. Pre-requisite: HPH 102 Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

HPP 120(3) Course ID: 000346
Radiation Biology
Examines the cellular response, pathology, and short- and long-term effects of ionizing radiation on living tissue. Prerequisite: (BIO 112 and BIO 113) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HPP 201(4) Course ID: 000885
Nuclear Instrumentation and Measurement I
Introduces the principles of operation and use of portable radiation survey instruments, counting room instrumentation including GM and proportional counters, and liquid scintillation. Introduces gamma ray spectroscopy. Pre-requisite: HPH 102 Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

HPP 202(4) Course ID: 000824
Nuclear Instrumentation and Measurement II
Introduces multi-channel analyzers in alpha, beta and gamma spectroscopy. Involves techniques to identify and quantify radioactive materials. Pre-requisite: HPP 201. Lecture/Lab: 4.0 credit hours (90 contact hours).
Components: Lecture
Attributes: Technical

HPP 246(2) Course ID: 000515
Environmental Law
Surveys federal and state environmental legislation, the role of governmental agencies responsible for implementation of statutes, and simulations of regulation enforcement situations. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical
HRS 101(3) Course ID: 000895
Instructor Consent Required
An Integrated Survey of Western Civilization I
An honors course designed to provide an opportunity for the interested student to study the development of Western Civilization as reflected in the literary, artistic, musical, philosophical, political, and economic developments and movements of the major western cultures from ancient times through the Roman Empire. Lecture: 3 hours. Prerequisite: Consent of instructor.
Components: Lecture
Attributes: All - Arts and Humanities

HRS 200(3) Course ID: 000765
Independent/Guided-Study Project
Students wishing to engage in an approved, valid research/ study project may receive academic credit from this course. The project may be scheduled concurrently with the academic semester, or in the case of necessary travel, between semesters or during the summer term. Lecture: Variable; Laboratory: Variable. Prerequisite: Superior academic ability as demonstrated by tests, classwork, and interviews.
Components: Laboratory, Lecture
Attributes: Other

HRT 102(3) Course ID: 004340
Introduction to Horticulture
This course introduces the practical approach to the study of horticulture. Students will learn the practices of horticulture and the purpose of plants for food, comfort, and bounty. Lecture: 3 hours.
Components: Lecture
Attributes: Technical

HRT 104(4) Course ID: 001534
Introduction to Herbaceous Plants
Covers the care, culture and distinguishing characteristics of herbaceous plants including the scientific and common names of many of the most common herbaceous plants including pests common to these plants. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

HRT 108(4) Course ID: 001535
Introduction to Woody Plants
Covers the care, culture, and distinguishing characteristics of woody plants including the scientific and common names of many of the most common landscape woody plants. Examines pests that are common to these plants. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

HRT 110(4) Course ID: 001536
Nursery Management
This course provides an introduction to the nursery industry. It includes information on soils, plant growth, nutrition and propagation methods; comparison of field and container growing practices; comparison of pest control methods; storing, grading and marketing nursery stock and the importance of keeping records and accounts.
Components: Lecture
Attributes: Technical

HRT 120(4) Course ID: 001538
Turf Management
Focuses on the identification, care, and culture of cool and warm season turf plants including how to calculate an area for seed or sod, identification of insects, weeds, diseases and the proper control measures for each, and the development of a schedule for good turf management and renovation for turf areas. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

HRT 130(3) Course ID: 001539
Landscape Maintenance
Introduces basic techniques for landscape management including pruning and planting techniques, safe working practices in the landscape and pest management. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HRT 131(2) Course ID: 001540
Landscape Maintenance Lab
Applies knowledge of equipment, technology, and safety issues related to landscape maintenance, and the use of general math skills in computations used in the landscape including pesticides, fertilizers, and IPM systems used in maintaining the landscape, soils, and construction of various hard surface features. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

HRT 150(3) Course ID: 001543
Horticulture Business Management
This course introduces various career opportunities in a garden center and focuses on salesmanship and business practices utilized in this environment. Identification of characteristics, usage and care of woody ornamentals, annuals and perennial plants, as well as use and care information needed by the consumer are included. Assisting customers in choosing chemical pesticides and plant related products is discussed.
Components: Lecture

HRT 160(4) Course ID: 005263
Retail Floral Design
Provides information and skills for successful employment in the floral design industry including business management, cost analysis and marketing, materials, containers, tools, and flowers. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

HRT 161(2) Course ID: 005264
Retail Floral Design Lab
Applies design principles and small business operations. Uses fresh and artificial floral products to create displays. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

HRT 210(4) Course ID: 001545
Landscape Design
Introduces the basic principles and practices of landscape design including the use of drawing equipment. Topics include the creation of design symbols and the development of a client needs and site analysis plan. Emphasis is placed on the ability to read landscape drawings and install plants from the design plan. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

HRT 240(4) Course ID: 001547
Greenhouse Management
Topics include the identification and function of a plant’s leaves, roots and stems; as well as identifying major plant processes and sexual reproduction parts. The 16 essential elements and how they effect plant growth are discussed. Identification of diseases, insects and plant disorders in the greenhouse are included. Development of growing schedules for the following crops are completed: poinsiettas, chrysanthemums, Easter lilies, bedding plants and hanging baskets. Injectors are calibrated using various fertilizer and chemical ratios. Prerequisite/Corequisite: HRT 140
Components: Lecture
Attributes: Technical

HRT 241(2) Course ID: 001548
Greenhouse Management Lab
This course is an introduction to the tools, equipment, procedures, supplies and safety issues related to greenhouse management. Other tasks are assigned as the season dictates. Prerequisite/Corequisite: HRT 240
Components: Laboratory
Attributes: Technical

HSM 100(3) Course ID: 005518
Introduction to Homeland Security
Introduces the history and organizational development of the US Department of Homeland Security. Examines the roles and functions of the components of Homeland Security and their relationships to state and local agencies. Investigates current trends and career opportunities in homeland security. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

HSM 110(3) Course ID: 005519
Introduction to Emergency Management
Introduces the field of emergency management and the incident command system, including the terminology and definitions used in emergency and disaster management. Examines four phases of emergency management and disaster planning: mitigation, response, recovery, and preparedness. Examines legal requirements, responsibilities, and laws pertaining to emergency management. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

HST Health Care Foundations

HST 101(1) Course ID: 002221
Introduction to Health Sciences
Provides students with information and career options about allied health and sciences programs including presentations by allied health practitioners. Students will research selected health profession/careers and allied health and sciences educational programs. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HST Health Care Basic Skills I
Introduces student to basic health care skills such as measuring and recording vital signs, assisting licensed personnel, observing and reporting patient conditions, collecting specimens and caring for the hygiene, comfort, and safety of patients in various settings. Prepares the student for entry-level health care positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture

HST Health Care Foundations

HST 101(3) Course ID: 007362
Health Care Basic Skills I
Introduces student to basic health care skills such as measuring and recording vital signs, assisting licensed personnel, observing and reporting patient conditions, collecting specimens and caring for the hygiene, comfort, and safety of patients in various settings. Prepares the student for entry-level health care positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture

HST Health Care Foundations
HST 102(3) Course ID: 007363
Health Care Delivery & Management
Introduces delivery and management of health care including professionalism, health care roles, health care delivery models, and types of health care coverage. Explores legal/ethical issues including HIPAA and confidentiality, electronic medical records and patients’ rights as well as analysis of current trends in health care today. (Appropriate for any student considering entering the Allied Health or Nursing field.) Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HST 103(2) Course ID: 007364
Health Care Communication
Introduces communication and its various forms as it exists in the health care field. Focuses on verbal, nonverbal, written and oral communication between members of the health team, patient, and caregivers through an interdisciplinary approach. Examines each role with discussion from the perspective of the involved parties. Emphasizes diversity, sociocultural influences, and teamwork. Includes discussion of the media’s role in health care, as well as how health promotion campaigns may be implemented and managed. Appropriate for anyone interested in a career in allied health or nursing. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HST 104(3.5) Course ID: 015849
Health Care Basic Skills I with Clinical
Introduces student to basic healthcare skills such as: measuring and recording vital signs, assisting licensed personnel, observing and reporting patient conditions, collecting specimens and caring for the hygiene, comfort, and safety of patients in various settings. Prepares the student for entry level healthcare positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Prepares student for the State Registered Nurse Aide examination. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours). Clinical: 0.5 credits (23 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

HST 121(2) Course ID: 007355
Pharmacology
Introduces students to the basics of pharmacology/ pharmacokinetics, include terms used to describe various effects and reactions from drug usage. Will also introduce metric system and basic dosage calculations common to most fields of study within allied health and nursing. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HST 122(3) Course ID: 007366
Clinical Pathophysiology
Explores an introduction to the nature of disease and its effect(s) on body systems. Provides a study of pathology and general health management of diseases and injuries across the lifespan. Includes topics of etiology, symptoms, physical and psychological reactions to diseases and injuries. Prerequisite: BIO 137 or BIO 135. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HST 123(2) Course ID: 007367
Health Care Basic Skills II
Builds on basic health care skills by incorporating previous learning into more advanced concepts and higher level skills. Emphasizes care of patients with common health problems throughout the lifespan. Prepares students to independently perform skills such as blood sugar monitoring, running an electrocardiogram, urinary catheterization and enemas, collecting blood for lab tests and preparing patients and instruments for surgery. treatment or examination. Prerequisite: HST 101. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HUM 120(3) Course ID: 000350
Introduction to the Humanities
Introduces students to at least five disciplines in the humanities, such as art, literature, dance, drama, cinema, philosophy, music, architecture, religion, and mythology. Explores distinctions and relationships between the disciplines through study of their basic methods, themes, and forms. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HUM 121(3) Course ID: 004906
Peace Studies
This interdisciplinary course is intended as a general introduction to the nature, scope, and methodology of Peace Studies, with a view toward the future. It will explore the history of non-violent movements to effect social change, the role of women in the attainment of peace and protection of life, the tie between social justice and the environment, and the resolution of conflict between individuals, groups, societies, and nations. The course includes the study of activists such as Dr. Martin Luther King, Jr., Gandhi, and Dorothy Day. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 125(3) Course ID: 000582
Introduction to Native American Literature
Introduces the study of the oral and written literature of Native American peoples, emphasizing the cultural and historical context in which it was composed. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 135(3) Course ID: 005430
Introduction to Latino Literature
Analyzes literary texts and other artistic expressions to reveal aspects of Latino cultures such as identity, immigration, indigeneity; relates literary developments and movements to the cultural, political, and religious experiences of Latinos in the U.S.; examines connections between minority writing and mainstream literary works. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 140(3) Course ID: 006814
Introduction to Latino Literature
Analyzes literary texts and other artistic expressions to reveal aspects of Latino cultures such as identity, immigration, indigeneity; relates literary developments and movements to the cultural, political, and religious experiences of Latinos in the U.S.; examines connections between minority writing and mainstream literary works. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 150(3) Course ID: 005430
Introduction to African Literature
Presents a cross-cultural and historical approach to the oral and written works by major Black writers of Africa. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 160(3) Course ID: 007110
Introduction to Holocaust Literature and Film
Analyzes literary texts, memoirs, film, and other artistic expressions of the Holocaust to focus on the cultural and political events that caused the Holocaust; examines how subsequent people represent what happened; explores the consequences of the Holocaust in terms of ethical and human rights issues; examines how issues of racism and religious intolerance occurred prior to and since the Holocaust; addresses the Holocaust in a comparative perspective to prior and subsequent acts of genocide in other countries. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 202(3) Course ID: 000841
Survey of Appalachian Studies I
Presents an inter-disciplinary introduction to Appalachian history, economy, geography, politics, and culture, primarily through exploration of texts about the region, including fiction, non-fiction, and poetry. Emphasizes geography, Appalachian identity, works, values, and communication. May also include exploration of regional music, traditional arts, drama, photography, film, and, where applicable, community-based explorations of the Appalachian experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 203(3) Course ID: 000518
Survey of Appalachian Studies II
Presents an inter-disciplinary introduction to Appalachian history, economy, politics, and culture, primarily through exploration of texts about the region, including fiction, non-fiction, and poetry. Emphasizes migrations, economy, belief, expression, politics and government, and environment. May also include exploration of regional music, traditional arts, drama, photography, film, and, where applicable, community-based explorations of the Appalachian experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 204(3) Course ID: 000812
Appalachian Seminar
Examines in detail one or more issues pertinent to the Appalachian region. Topics may include but are not limited to: cultural diversity, religious expression, politics and government, trends in Appalachian literature, or trends in regional sociological scholarship. Topics may vary from semester to semester. This course may be repeated once for credit with a different topic. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 207(3) Course ID: 007049
American Seminar: Topic
Examines issues pertinent to American culture and identity through an interdisciplinary and multi-cultural approach. Includes topics such as cultural diversity, religious expression, politics and government, trends in art, literature, and/or music, political life, media representation, trends in social science which may vary from semester to semester. Course may be repeated once for additional credit when the repeat offering covers a different topic than the initial course offering. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

HUM 220(3) Course ID: 005532
Historical Perspectives on Peace and War
Provides an introduction to the history of violence and peace movements. Examines the anthropological, political, cultural and technological forces contributing to the frequent occurrence of war throughout history. Explores the history of movements and organizations, both religious and secular, intended to minimize warfare and oppression. Examines literature and visual arts to enhance and elaborate on the themes presented in the anthropological and historical sections of the course. Sophomore standing or consent of instructor. Prerequisite: Sophomore Status. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HUM 221(3) Course ID: 005533
Contemporary Perspectives on Peace and War
Introduces the effects of modern-day warfare and the countervailing trends, actions, and movements to create peace. Focuses on aspects of peace and war such as the role of women, the perspectives of notable scientists, philosophers, and political thinkers, the role of economic globalization in social justice, the environmental impacts, and conflict resolution. Sophomore standing or consent of instructor. Prerequisite: Sophomore Status. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science
 ICT 192 Course ID: 016367
Process Technology Equipment
Covers process equipment’s function, components, operation, and the Process Technician’s role for operating and troubleshooting, to include, but not limited to piping, valves, tanks, compressors, electrical distribution, motors, heat exchangers, boilers, reactors, and auxiliary equipment. Pre-requisite: ICT 186 with a grade of “C” or greater or Permission of Instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
Attributes: Technical

 ICT 194 Course ID: 016368
Process Technology Systems
Covers the interrelation of process equipment and process system, specifically the arrangement of process equipment into basic systems, process purpose, and specific function. Discusses the Process Technician’s role in controlling factors that affect process systems under normal conditions and how to recognize abnormal process conditions. Pre-requisite: ICT 192 with a grade of “C” or greater or Permission of Instructor. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture
Attributes: Technical

 ICT 195 Course ID: 016369
Process Technology Operations
Introduces the student to the field of operations within the process industry. Utilizes existing knowledge of equipment, systems, and instrumentation to understand the operation of an entire unit as related to commissioned, normal startup, normal operations, normal shutdowns, turnarounds, and abnormal situations. Pre-requisite: ICT 192 with a grade of “C” or greater or Permission of Instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
Attributes: Technical

 ICT 200 Course ID: 016370
Process Troubleshooting
Instructs in troubleshooting techniques, procedures, and methods used to solve process problems. Pre-requisite: ICT 190 with a grade of “C” or greater or Permission of Instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
Attributes: Technical

 ICT 230 Health, Safety & Environmental Practices
Basic principles of industrial health and safety are discussed including accident and loss prevention, safety legislation, safety documents, safety management practices, health and safety hazards and control, safe work practices, and fire / explosion hazards. Corresponding audit will be performed in the field at participating local industries. Lecture: 3 hours. Corequisite: ICT 185, CHE 104 or 105, or consent of instructor.
Components: Lecture
Attributes: Technical

 IDL Instructional Design and Learn

 IDL 101(3) Course ID: 007201
Introduction to Instructional Design and Learning Technology
Provides an introduction to instructional design including the role of learning and training in an organization. This course introduces common types of learning including instructor-led training and eLearning. The course will also provide an overview of learning theory, common eLearning authoring tools, and careers in the design and creation of training. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

 IDL 110 Instructional Design I
Provides an introduction to instructional systems design through an exploration of the ADDIE model. Students will design, develop, deliver, and evaluate training content for instructor-led learning. Pre-requisite: ENG 101 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

 IDL 113 Introduction to Visual Communication for Learning
Introduces students to the elements of visual communication and storytelling for the purpose of learning and external promotion. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

 IDL 120 Facilitation Skills
Introduces students to the skills and technology vital to course facilitation. Students will apply adult learning concepts in the role of course facilitator for classroom and online settings. Pre-requisite: IDL 101 and IDL 110 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

 IDL 123 Multimedia Design and Development
Introduces students to foundations of design and layout principles that enhance learning. Students will learn to use multimedia in an instructional context, including learning activities, and other forms of multimedia. This course also includes an overview of the course development process. Pre-requisite: IDL 101 and IDL 110 or consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

 IDL 130 Technical Writing for Instructional Design
Focuses on both the design and development of technical training and documentation. Students learn how performance outcomes, intended audience, types of content, and types of deliverables impact technical writing. Presentation strategies for content are covered. An overview of tools for technical writing is also provided. Pre-requisite: IDL 101 and IDL 110 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

 IDL 147 eLearning Development I: Rapid Authoring Tools
Provides an overview of eLearning development tools for the development of courses including learning activities. Particular emphasis will be given to rapid authoring tools. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

 IDL 203 Designing in Client Applications
Focuses on designing with common client software applications such as word processing, presentation, and spreadsheets. Students will learn to apply visual communication principles to these tools for the purpose of creating training materials and templates. Pre-requisite: CIT 130 and IDL 113 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

 IDL 207 eLearning Development II: HTML, CSS, and JavaScript
Covers HTML, CSS, and JavaScript for the development of web pages and web sites. Particular emphasis will be given to the use of these technologies for eLearning. Pre-requisite: IDL 147 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
IDL 210(3) Course ID: 007207
Instructional Design II
Learn how Bloom’s Taxonomy of Learning Domains translates into the planning, analysis, and design for the resolution of human performance problems. The ADDIE Model of instructional design will be explored within the context of eLearning. Pre-requisite: IDL 101 and IDL 110 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

IDL 213(3) Course ID: 007248
Designing in Graphic Applications
Provides basic-level training for designing with common graphic software applications. Students will learn to apply visual communication principles in the context of a variety of deliverables, including print and eLearning. Pre-requisite: IDL 113 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

IDL 217(3) Course ID: 007208
Multimedia Development
Introduces students to audio / video production and implementation for eLearning. Pre-requisite: IDL 123 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

IDL 220(3) Course ID: 007249
Business Management for Instructional Design and Learning Technology
Provides an overview of business and the role of learning and training for an organization. This course includes an overview of financial and project management as well as the relationship of the training function to corporate goals and objectives. Pre-requisite: IDL 101 and IDL 110 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

IDL 223(3) Course ID: 007250
Design Application
Provides practical application in which students will utilize their accumulated skills, knowledge of design software and fundamental principles in several real-life scenarios. Pre-requisite: IDL 203 and IDL 213 or consent of the instructor. Lecture: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

IDL 227(3) Course ID: 007209
eLearning Development III: Advanced Authoring Tools
Provides instruction in the development of eLearning courses and learning activities, including scenarios and assessments. Particular emphasis will be given to more advanced authoring tools and functions. Pre-requisite: IDL 207 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

IDL 230(3) Course ID: 007251
Evaluation of Instruction
Provides an overview of the key considerations for evaluating instruction. Students will learn to write valid assessments of learning. Pre-requisite: IDL 210 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

IDL 240(3) Course ID: 007252
Human Performance Consulting
Provides an overview of consulting for human performance issues. Students gain experience with problem solving, decision making, the application of learning skills, and the interpretation of information in a project context. Pre-requisite: IDL 210 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

IDL 250(3) Course ID: 007253
Instructional Design III
Explored advanced topics in instructional design. Methods for increasing learner engagement for eLearning courses will be shared. The students will take on the role of the instructional designer to design and develop advanced learning activities, including scenarios, learning games, and simulations. Pre-requisite: IDL 210 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

IDL 260(3) Course ID: 007254
Competency Models and Curriculum Design
Provides an overview of competency models, the definition of competencies through job task analysis and the development of curriculum models that support a competency-based training plan. Pre-requisite: IDL 210 or consent of the instructor. Lecture: 3.0 credit (45 contact hours).
Components: Lecture Attributes: Technical

IDL 290(3) Course ID: 007255
Experiential Learning in Instructional Design
Perform entry-level Instructional Design and Learning technology skills based on student’s chosen track. The learning plan will be discussed and agreed upon by the student, instructor and site supervisor. Pre-requisite: Permission of the instructor. Co-Op: 3.0 credits (180 contact hours).
Components: Co-Op Attributes: Technical

IDL 298(3) Course ID: 007256
Instructor Consent Required
Instructional Design Capstone
Provides an opportunity to assemble a comprehensive portfolio using skills learned throughout the Instructional Design and Learning Technology Program, including an assessment of the student’s overall skills related to their program specialization or track. Provides IDL students with a professional design portfolio to aid in the search for employment. Pre-requisite: Consent of the instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

IDT 100(3) Course ID: 005738
Fundamentals of Design
Introduces the basic drawing skills, elements and principles, color theory, terminology, and guidelines used to solve interactive design problems. Develops the ability and confidence to determine the appropriateness, feasibility and success of a potential design. Explores the integration of typography and visual elements using format structures. Prerequisite or corequisite: Computer literacy course. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IDT 110(4) Course ID: 005739
3D Modeling & Animation I
Applies basic design principles to the solution of visual problems using elements of 3D design. Includes 3D coordinate systems, 3D models, and mathematical computations as they apply to geometric construction. Emphasizes a creative and critical approach to working in the medium of 3D computer animation. Prerequisite or corequisite: Computer literacy course. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture Attributes: Technical

IDT 120(4) Course ID: 005740
Digital Design Tools
Includes the basic skills, terminology, file formats and specifications of visual design within the digital realm through the use of industry standard vector and raster software. Requires file management and project planning. Prerequisite or corequisite: Computer literacy course. Lecture/Lab 4 credits. (90 contact hours).
Components: Lecture Attributes: Technical

IDT 170(3) Course ID: 005743
Project Strategy
Introduces marketing and design terms, information gathering, research, and data interpretation. Uses small groups to teach the challenges and rewards of creative collaboration. Includes group work to plan, prioritize, and set goals for a team project. Prerequisite or corequisite: Computer literacy course. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 101(3) Course ID: 004130
Orientation to Early Childhood Education
Introduces information related to designing appropriate environments and curricula for infants, toddlers, and preschoolers. Explores the historical and current influences on early childhood education. Includes 20 hours of required field experience, which may be waived by the IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 102(3) Course ID: 004087
Foundations of Early Childhood Education
Focuses on creating an environment and curricula that support cognitive, physical, creative, language, social, and emotional development of infants, toddlers, and preschoolers. Presents knowledge of appropriate child assessment, ethical decision-making in the early childhood profession, and accommodations for children with disabilities. Includes ten (10) hours of required field experience, which may be waived by the IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 120(3) Course ID: 004131
Health, Safety and Nutrition
Examines the components and skills necessary for maintaining a healthy and safe environment for young children. Lecture: 3 Credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 130(3) Course ID: 004132
Early Childhood Development
Addresses the physical, language, cognitive, social and emotional development of children beginning with conception. Includes methods of observation that are practiced during field experiences. Includes 10 hours of required field experience, which may be waived by the IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC Interdisciplinary Early Childhood Program Descriptions
IEC 170(3) Course ID: 005081
Observation and Assessment
Presents the process of observation, documentation, and assessment. Includes assessment skills, identification of appropriate methods and instruments, and linking results to planning, guidance, and instruction. Emphasizes recommended practices, ethical and legal responsibilities for educators, and the role of the family in the process. Includes ten (10) hours of required field experience, which may be waived by the IECE program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC 101 or IEC 102 or IEC 130 or permission of IECE program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 180(3) Course ID: 004088
Approaches to Early Childhood Education
Curriculum
Introduces theoretical perspectives for curriculum in early childhood programs. Teaches the design of curricula and examines the societal factors that impact programming for children. Includes 10 hours of required field experience, which may be waived by the IECE program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC 101 or IEC 102 or IEC 130 or permission of IECE program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 190(3) Course ID: 004134
Applied Experiences in Early Childhood Education
Includes participation in supervised teaching experiences in early childhood settings. Covers observing, planning, implementing and assessing learning experiences based on developmentally appropriate practices. Any 100 level IEC course or permission of program coordinator. Components: Laboratory, Lecture Attributes: Technical

IEC 200(3) Course ID: 004133
Child Guidance
Examines appropriate methods for guiding children and promoting the development of prosocial behaviors. Includes 10 hours of required field experience, which may be waived by the IECE program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC 101 or IEC 130 or permission of program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 210(3) Course ID: 005580
Families and Communities in Early Childhood Education
Examines community programs that focus on forming partnerships with families to support child development and family well-being. Builds an awareness of family context of a diverse society to create respect, build reciprocal relationships, and empower families. Required: 10 hours of field experience. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 216(3) Course ID: 004135
Literacy and Language in IEC
Presents the interaction of language therapy and instruction techniques and the resulting effect on language and literacy development. Includes five (5) hours of required field experience, which may be waived by the IECE program coordinator for students concurrently enrolled in IEC190 or IEC291. Pre-requisite: IEC 180 or Permission of program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 221(3) Course ID: 004136
Creative Expressions in IEC
Addresses the role of creativity as it relates to the development of young children. Studies a variety of art music, drama, and movement experiences that encourage creative expression in young children. Includes the implementation of appropriate creative activities in a child-centered environment. Includes five (5) hours of required field experience which may be waived by the IECE Program Coordinator for students concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC 180 or permission of program coordinator. Components: Lecture Attributes: Technical

IEC 230(3) Course ID: 004569
Business Administration of ECE Programs
Introduces establishing, operating and/or owning an early childhood program. Includes legal forms for early childhood programs, finance, accounting, insurance, government regulations and assistance, economics, marketing and management principles. Components: Lecture Attributes: Technical

IEC 235(3) Course ID: 004137
Introduction to Inclusive Education
Presents the types of exceptionalities that occur in the development of children with an emphasis on state and federal laws that impact services. Introduces assessment, referral processes and sources, education plans, family service plans, center-based and home-based care, adaptations and assistive technology, and ethical considerations. Includes ten (10) hours of required field experience, which may be waived by the IECE program coordinator if the student is concurrently enrolled in IEC 190 or IEC 291. Prerequisite: IEC 180 or permission of IECE program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 240(3) Course ID: 004138
Administration of Early Childhood Education
Focuses on the administrative responsibilities of creating and implementing education programs for children and their families with an emphasis on the administrative, organizational, and legal responsibilities in operating early childhood programs. Includes ten (10) hours of required field experience. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 248(3) Course ID: 004139
Sciences and Math in IEC
Applies the concepts and principles of science, social studies, mathematics, and health in learning experiences for young children. Includes five (5) hours of required field experience which may be waived by the IECE program coordinator if the student is concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC 180 or permission of IECE program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 250(3) Course ID: 004089
School Age Child Care
Provides the student with specialized knowledge, skills, and abilities for working with school age children. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 260(3) Course ID: 004140
Infant and Toddler Education and Programming
Examines the developmental and educational needs of children from birth to age three. Provides an opportunity for students to plan, implement and evaluate the care and educational environment for children birth to age three by integrating an understanding of the physical, social, emotional, and cognitive development with developmentally appropriate practices for each stage. Includes ten (10) hours of required field experience, which may be waived by the IECE program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 291(3) Course ID: 004141
Instructor Consent Required
IECE Practicum/Cooperative Education
Requires participation in supervised teaching experiences in early childhood settings where practical skills are applied. Includes observing, planning, implementing and assessing learning experiences based on developmentally appropriate practices. Required: One Hundred and eighty (180) hours of field experience. Pre-requisite: Program Coordinator’s Approval. Practicum: 3 credits (225 contact hours, ratio 75:1).
Components: Practicum Attributes: Technical

IEC 298(1 - 3) Course ID: 004142 Department Consent Required
Special Topics in Early Childhood Education
An in-depth knowledge of a selected topic in early childhood education is the goal of this course. The topic of study may be the student’s choice per instructor’s approval or an issue or topic developed by an instructor for course presentation. Prerequisite: Coordinator’s Approval. Lecture: 1-3 credits (15-45 contact hours).
Components: Practicum Attributes: Technical

IES International Exchange Student
IEC 235(1 - 3) Course ID: 005198
International Student Experience
First-hand exposure to cultures outside the United States. Includes travel and may include study, visits to corporate, government offices, cultural activities and/or work assignments. Prerequisite: IES 233. Practicum: 1-3 credits (60-180 contact hours).
Components: Practicum Attributes: Technical

IET Integrated Engineering Technology
IET 102(2) Course ID: 007134
Preventive Maintenance
Introduces how routine work is done to keep equipment in good working order and to optimize its efficiency and accuracy. Addresses regular routine cleaning, lubricating, testing, checking for wear and tear and eventually replacing components to avoid breakdown. Introduces students to the various types and styles of predictive and preventive maintenance components, principles, and practices used in industrial applications. Lecture/Lab: 2.0 credits (40.5 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

IET 104(2) Course ID: 007137
Blueprint Reading/Schematics
Introduces the fundamental information in drafting necessary to retrieve read, manipulate and understand a mechanical part print. Instructs students to recognize, identify, describe, and relate the components used in schematics, along with their symbols and connectors, to describe electrical, electronics, pneumatics, hydraulics, and piping circuits, as well as welding and joining symbols interpretation. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

IET 107(3) Course ID: 007140
Basic Electricity/Electronics
Introduces the various elements of basic electricity including the identification of electrical symbols as well as interpretation of schematics, cross referencing prints, tracing circuits, interpreting sequential function charts, line drawings and time charts. Introduces the student to electrical measurement instruments, including digital and analog multimeters, clamp-on ammeters, megohmmeters, and the oscilloscope. Concentrates on control logic components and circuit function. Introduces the student to solid state devices and applications. Lecture/Lab: 3.0 credits (67.5 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Components</th>
<th>Attributes</th>
<th>Lecture/Lab Credits</th>
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<td>007145</td>
<td>IET 108(5) Mechanical Drive Systems</td>
<td>Lecture</td>
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<td>IET 204(5) Robot Maintenance</td>
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<td>007167</td>
<td>IET 205(4) Controls and Instrumentation</td>
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<td>IET 206(5) Intro to Basic Electricity</td>
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<td>IET 207(0.3) Control Circuits &amp; Components</td>
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<td>007141</td>
<td>IET 208(0.5) Basic Mechanical Power Systems</td>
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<td>007148</td>
<td>IET 111(0.3) Couplings and Alignment</td>
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IET 1084(1.1) Course ID: 007149
Bears, Shafts, and Seals
Introduces basic types and functions of bearings, shafts and seals found on mechanical drive systems commonly used in industry. Lecture/Lab: 1.1 credits (24 contact hours).
Components: Lecture

IET 1085(0.2) Course ID: 007150
Brakes and Clutches
Introduces various types and styles of braking systems and clutch components used in industrial applications. Lecture/ Lab: 0.2 credits (4.5 contact hours).
Components: Lecture

IET 1086(0.7) Course ID: 007151
Gears and Cams
Introduces various types and styles of gears and cam follower components used in industrial applications. Lecture/Lab: 0.7 credits (13.5 contact hours).
Components: Lecture

IET 1091(0.7) Course ID: 007153
Basic OSHA Safety
Introduces OSHA and the OSHA regulations that apply to the auto manufacturing industry. Lecture/Lab: 0.7 credits (12 contact hours).
Components: Lecture

IET 1092(0.4) Course ID: 007154
Hoists and Cranes
Introduces the basic concepts and safety rules and issues related to the use of overhead cranes and hoists. Lecture/ Lab: 0.4 credit (6 contact hours).
Components: Lecture

IET 1093(1.2) Course ID: 007155
Rigging Awareness & Fundamentals
Introduces the basic concepts and safety rules and issues related to the use of rigging equipment, attachment components, calculating slinging stresses, and safe lifting and turning loads. Lecture/Lab: 1.2 credits (25.5 contact hours).
Components: Lecture

IET 1094(0.7) Course ID: 007156
First Aid, CPR, & AED
Provides knowledge and skills necessary to help sustain life and minimize the consequences of injury or sudden illness until advanced medical help arrives. Includes first aid, CPR, and AED lessons to meet the various training needs of those in workplace, school or community settings. Lecture/Lab: 0.7 credits (16.5 contact hours).
Components: Lecture

IET 1101(0.5) Course ID: 007182
Introduction to Arc Welding
Introduces the power sources used in shielded metal arc welding (SMAW) and gas metal arc welding (GMAW), along with equipment and filler metals used to produce a welded joint and welding principles along with the metallurgy of steel and welding. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

IET 1102(1.6) Course ID: 007183
SMAW/Stick Welding
Introduces shielded metal arc welding (SMAW) safety and shielded metal arc welding (SMAW) processes including flat, horizontal, vertical, and overhead welding techniques. Lecture/Lab: 1.6 credits (45 contact hours).
Components: Lecture

IET 1103(0.9) Course ID: 007184
Gas Metal Arc Welding
Provides knowledge of theory, safety practices, equipment and techniques required for gas metal arc welding (GMAW) including different transfer methods and position welding. Lecture/Lab: 0.9 credits (25.5 contact hours).
Components: Lecture

IET 1104(1) Course ID: 007185
Welding and Fabrication
Introduces oxy-fuel welding and cutting, including safety, setup and maintenance of oxy-fuel welding and cutting equipment. Includes cutting, brazing, and welding techniques. Lecture/Lab: 1.0 credits (22.5 contact hours).
Components: Lecture

IET 1201(0.1) Course ID: 007187
Intro to Machining Operations
Introduces machining operations. Focuses on the safe application of the most common machining procedures and machines used by multi-skilled industrial maintenance technicians. Lecture: 0.1 credits (1.5 contact hours).
Components: Lecture

IET 1202(0.6) Course ID: 007188
Turning
Introduces safe operation of lathes, primarily engine and tool room lathes. Addresses various types of lathes used in industry, their component parts, and associated safety precautions. Emphasizes the most common lathe operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.6 credits (16.5 contact hours).
Components: Lecture

IET 1203(0.8) Course ID: 007189
Milling
Introduces safe operation of milling machines, primarily vertical milling machines. Addresses the various types of milling machines used in industry, their component parts, and associated safety precautions. Emphasizes the most common milling operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.8 credits (22.5 contact hours).
Components: Lecture

IET 1204(0.5) Course ID: 007190
Drill Press
Introduces safe operation of drill presses, primarily the sensitive drill press. Addresses the various types of drilling machines used in industry, their component parts, and associated safety precautions. Emphasizes the most common sewing operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.5 credits (15 contact hours).
Components: Lecture

IET 1205(0.4) Course ID: 007191
Saws
Introduces safe operation of saws, primarily the horizontal and contour band saw. Addresses the various types of metal saws used in industry, their component parts, and associated safety precautions. Emphasizes the most common sewing operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.4 credits (10.5 contact hours).
Components: Lecture

IET 1206(0.7) Course ID: 007192
Hand and Power Tools
Introduces safe and effective use of hand and power tools. Emphasizes the application of the most common tools used by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.7 credits (16.5 contact hours).
Components: Lecture

IET 1301(1) Course ID: 016097
Safety Culture
Introduces the importance of cultivating daily safe work habits and the predictable negative results of not being safety-conscious in the workplace. Instructs the students in basic safety culture and prepares them to participate in, conduct, and lead safety walk-throughs. Introduces the student to Kiken Yoshi Training (KYT) or Hazard Prediction Training. Prepares the student to conduct risk assessment activities, construct safety boards, and formulate individual safety commitments. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

IET 1302(1) Course ID: 016098
5S
Introduces the fundamental 5S process involving the five step progression described by the Japanese words Seiri, Seiton, Seikeiso, Seiketsu, and Shitsuke. Instructs the students in the sequence involving classifying and sorting, ordering and aligning, cleaning and sweeping up, standardizing, and developing a process of sustainable practice in the workplace. Fosters the development of a workplace organization in which safety and efficiency are always paramount. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

IET 1303(1) Course ID: 016099
Total Production Management
Introduces the Toyota Business Practice model, the 8 step Toyota Problem Solving method, and the 10 part Toyota Drive and Dedication model. Instructs the students to clarify the problem, break it down to analyze it, set achievable targets, analyze the root cause, develop countermeasures, evaluate results and the process, standardize the results, and learn from failures. Fosters the development of a customer first philosophy involving all the stakeholders. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

IET 1304(1) Course ID: 016100
Problem Solving
Introduces troubleshooting of fluid power components and systems with an emphasis on safety. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

IET 1305(1) Course ID: 016101
Maintenance Reliability
Introduces the Toyota Maintenance Reliability training. Describes the difference between corrective maintenance and preventive maintenance. Breaks down proactive maintenance and the underlying tools and constituent processes. Instructs the students in the various individual units in a system and the steps in evaluating failure mode risks and countermeasures. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

IET 1306(1) Course ID: 007179
Electrohydraulics/Pneumatics Fundamentals
Explains the fundamental concepts of fluid power. Covers the principles of fluid power, calculations of physical properties of fluids and their ability to do work. Introduces the various fluid power components, symbols, circuits. Introduces troubleshooting of fluid power components and systems with an emphasis on safety. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

IET 1201(0.7) Course ID: 007178
Reservoirs, Fluids, Filters
Introduces functions of hydraulic/pneumatic reservoirs and reservoir components. Addresses properties and requirements for fluids, as well as how filters are used to maintain cleanliness in fluid power systems. Lecture/Lab: 0.7 credits (13.5 contact hours).
Components: Lecture

IET 1303(0.4) Course ID: 007177
Hose, Piping, and Tubing
Introduces various types of conductors that carry fluid through a system. Focuses on fittings, hose, and steel tubing used in fluid power systems. Lecture/Lab: 0.4 credits (9 contact hours).
Components: Lecture

IET 1204(0.8) Course ID: 007176
Pumps, Actuators, Accumulators
Introduces the different types of pumps, actuators and accumulators used in fluid power systems which create fluid flow, change fluid pressure into mechanical power and devises that store energy in the system. Lecture/Lab: 0.8 credits (16.5 contact hours).
Components: Lecture

IET 1205(1.3) Course ID: 007175
Valves
Explains hydraulic and pneumatic directional control, pressure control and flow control valves. Lecture/Lab: 1.3 credits (28.5 contact hours).
Components: Lecture
IET 2016(0.9) Course ID: 007174
Electrohydraulics/Pneumatics
Introduces the fundamentals of fluid power, including basic electrical principles, basic fluid power principles, electro-fluid power systems. Lecture/Lab: 0.9 credits (18 contact hours).
Components: Lecture

IET 2017(0.9) Course ID: 007173
Systems Troubleshooting
Introduces troubleshooting of hydraulic and pneumatic systems, including tracing out systems, isolating problems, safety testing and inspecting systems that use combination circuits and combined electro-fluid/pneumatic systems. Lecture/Lab: 0.9 credits (19.5 contact hours).
Components: Lecture

IET 2031(0.6) Course ID: 007171
Introduction to PLCs
Introduces various elements of basic PLCs including the identification of programmable logic control systems as well as an overview of PLC system architectures. Provides instruction in basic numbering systems, computer terminology, PLC functions, program structures, language standards, point addressing basics. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

IET 2032(1.4) Course ID: 007170
Hardware & Software
Introduces hardware and software for a PLC. Lecture: 1.4 credits (21.5 contact hours).
Components: Lecture

IET 2033(1.5) Course ID: 007169
Programming PLCs
Introduces various elements of programming PLCs. Addresses the basic elements of PLC programming and routines. Requires student to program using ladder logic, structured text, sequential function chart, and function block languages. Lecture/Lab: 1.5 credits (34.5 contact hours).
Components: Lecture

IET 2034(1.5) Course ID: 007168
PLC Communication
Introduces various elements of industrial communications using PLCs. Addresses common types of control communications in an industrial environment. Includes discussion of PLC addressing used in communications. Lecture/Lab: 1.5 credits (34.5 contact hours).
Components: Lecture

IET 2051(0.6) Course ID: 007166
Introduction to Robotics
Introduces robotics in regard to industrial robotic safety standards, historic timeline of industrial robots, industrial classification of robots, computer applications in robotics, robotic motion concepts, common terms and definitions used in computer integrated manufacturing (CIM) as it relates to robots. Lecture/Lab: 0.6 credits (10.5 contact hours).
Components: Lecture

IET 2052(1.5) Course ID: 007165
Programming/Editing Robots
Introduces robotic systems and programming. Reviews robotic system application, automated system safety, robotic system composition, robotic motion control, fundamental programming commands, and program editing. Emphasizes the fundamentals of robot control. Aids students in electronics, welding, computer technology, and general sciences. Lecture/Lab: 1.5 credits (30 contact hours).
Components: Lecture

IET 2053(0.2) Course ID: 007164
Robot and Preventive Maintenance
Instructs an operator, technician, engineer, programmer, or student to master the preventive maintenance techniques required for a robot and their backup systems. Lecture/Lab: 0.2 credits (4.5 contact hours).
Components: Lecture

IET 2054(1.1) Course ID: 007163
Error Codes & Troubleshooting
Instructs operators, technicians, engineers, programmers, or students on the basic recovery procedures needed to interpret robot error codes and perform a safe recovery start up procedure on robotics equipment. Lecture/Lab: 1.1 credits (22.5 contact hours).
Components: Lecture

IET 2055(0.6) Course ID: 007162
Integration of PLCs & Robots
Introduces concepts associated with integrating robotic applications in a PLC-controlled, automated system. Includes discussion of the standard safety and interface signals associated with integrated systems, as well as various types of robotic applications along with the interface signals typically associated with each application. Stresses the programming concepts that support optimizing cycle time. Lecture/Lab: 0.6 credits (15 contact hours).
Components: Lecture

IET 2061(0.5) Course ID: 007160
Fundamentals
Introduces identification, installation, replacement, and troubleshooting of automation controller circuit boards and modules. Lecture/Lab: 0.5 credits (10.5 contact hours).
Components: Lecture

IET 2062(0.9) Course ID: 007159
Sensors and Photoeyes
Introduces installation, maintenance and troubleshooting of common input devices. Lecture/Lab: 0.9 credits (18 contact hours).
Components: Lecture

IET 2063(0.6) Course ID: 007158
Calibration and Loop Training
Introduces methods of motor control including on-off, proportional, integral, and derivative including PID loop tuning and quality. Lecture/Lab: 0.6 credits (13.5 contact hours).
Components: Lecture

IET 2064(3) Course ID: 007157
Final Control Elements
Covers automation output devices including AC, DC, and servo motors, variable speed drives, relays, motor starters and sizing of components for various applications. Lecture/Lab: 3.0 credits (63 contact hours).
Components: Lecture

IFM 207(4) Course ID: 005346
Special Problems IV
Designed for the student who has demonstrated specific special needs. Laboratory: 4 credits (180 contact hours).
Components: Laboratory
Attributes: Technical

IFM 111(3) Course ID: 007270
Client-side Informatics Software
Examines client-side informatics software used to define, analyze, design, collect, structure, manage, and share organizational data. Examines data through charts and statistical analysis. Applies informatics concepts using industry-standard software, such as spreadsheet packages, database management systems, data/document sharing software, and collaboration software. Pre-requisite: Computer Literacy or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IFM 128(3) Course ID: 007271
Principles of Informatics
Introduces student to the concepts associated with an information-centric world, information systems, and includes the definition of information and how it is communicated. Prepares students to understand how information systems support data-driven decision making strategies, information sharing technologies, data encoding, cooperative skills, knowledge sharing, and organizing of information. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IFM 130(3) Course ID: 007272
Business Data Communications
Introduces students to data communications terminology and concepts used in business. Introduces students to network design and analysis. Provides a survey of network planning, implementation and administration. Provides an overview of commercial networking hardware and software products and the methodologies used for their evaluation. Introduces students to data and network security. Introduces students to data storage, database systems and data extraction across various network and client-side devices. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IFM 211(3) Course ID: 007273
Collaboration Software
Examines collaboration software and how it is commonly used in informatics environments and within organizations. Prepares students to design, develop, implement and manage team collaboration sites. Pre-requisite: Computer Literacy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IFM 215(3) Course ID: 007274
Information Systems Analysis
Introduces students to systems analysis and general design; analysis strategies, tools, and techniques for documenting current systems and developing proposed systems; systems modeling, data modeling, cost/benefit analysis, and project management; and development of a comprehensive systems analysis project. Pre-requisite: Digital Literacy or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IFM 225(3) Course ID: 007275
Advanced Informatics
Examines advanced informatics concepts related to designing, analyzing, organizing, securing, managing, and mining databases. Examines such topics as data corruption, efficiency in design and implementation, data mining, database connectivity, and network security basics. Pre-requisite: Computer Literacy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
IFM 235(3) Course ID: 007276
Information Systems and Business Intelligence
Introduces students to the fundamentals of information systems and business intelligence. Prepares both business and information technology students to understand how information systems and business intelligence provides a basis for the decisions needed to be competitive in the global marketplace. Pre-requisite: Digital Literacy or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD Information Management and Design

IMD 100(3) Course ID: 004764
Digital Information & Communication Technologies
Introduces digital and social media concepts and technologies. Examines hardware, operating systems, applications, telecommunications, digital defense, ethics, and social media. Utilizes Windows operating system plus word processing, spreadsheet, database, and presentation applications. Emphasizes social media practices and concepts. This course fulfills the digital literacy requirement. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Digital Literacy

IMD 114(3) Course ID: 005748
Information Literacy
This course is an introduction to the use of information resources, both traditional print materials and online materials, for academic and professional research. Topics include development of search strategy, evaluation of resources, use of database search techniques, ethical and legal aspects of information management and documentation of sources. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 115(3) Course ID: 004765
Introduction to Graphic Design
Introduces theory, concepts and techniques required in graphic design. Includes an introduction to layout; color theory and use; design, photo and illustration techniques; and exploration of media in respect to digital design. Integrates concepts regarding the production process including pre-press, printing, other production techniques and distribution. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 117(3) Course ID: 004767
Keyboarding and Basic Word Processing
Students use a microcomputer and software to develop proper techniques of touch keyboarding. Basic word processing skills are integrated with a thorough study of form, style, and arrangement of business documents. Speed, accuracy and control are emphasized. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Computer Literacy, Technical

IMD 124(3) Course ID: 016264
Introduction to Game Development
Presents an overview of the game development process including game development history, platforms, goals, genres, players, story and characters, development, gameplay, levels, interfaces, audio, development processes, development team roles, marketing, and maintenance. Provides opportunities to play and analyze games and to complete portions of game designs. Pre-requisite: CIT 124 or IMD 100 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: CIT 124
Attributes: Technical

IMD 126(3) Course ID: 004781
Introduction to Desktop Publishing
The use of microcomputers for designing and producing various publications is introduced. Hands-on experience is provided in using desktop publishing software and a laser printer to produce high-resolution publications, such as flyers, brochures, business forms, and newsletters. Students are also introduced to basic design techniques, type and graphics layout, and the related terminology. Prerequisite: IMD 100 or equivalent skills. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 127(3) Course ID: 005044
Vector Design with Adobe Illustrator
In this course, students will be introduced to and develop vector (line-based) graphics using industry-standard application(s). Topics covered will include examining the theory behind vector graphics, investigating the advertising and print industry’s use of this type of graphic, creation of graphics from simple to increasingly complex, as well as development of a portfolio of vector art. Prerequisite: IMD 115 or concurrent or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 128(3) Course ID: 005045
Raster Design with Adobe Photoshop
Introduces raster (photo or pixel-based) graphics using industry standard application(s). Covers the theory behind raster graphics, investigating the advertising and print industries’ use of this type of graphic, creation and manipulation of raster-based graphics from simple to increasingly complex, the use of Photoshop in web design, video editing and compositing with Photoshop, as well as development of a portfolio of raster art and photo editing and manipulation samples. Prerequisite: IMD 100 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 133(3) Course ID: 005046
Beginning Web Design
Introduces the creation and publication of a web site and covers extensible hypertext markup language (XHTML) and introductory cascading style sheets (CSS). Covers hand-coding for web design, along with the incorporation of graphics into web sites and publishing. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 180(3) Course ID: 004786
Intermediate Web Design
Utilizes content management systems (CMS) for web design with an emphasis on custom theme development. Instructs students in basic CMS setup, administration, and theme design. Utilizes HTML, CSS, and photo-editing software within a CMS. Identifies fundamentals including webpage layout, navigation, font usage, color schemes, site architecture, with emphasis on creating websites that effectively communicate the desired content for employers and clients. Pre-requisite: IMD 133 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 201(3) Course ID: 004787
Microsoft Office Applications
Presents advanced skills utilizing Microsoft Office applications for the creation, manipulation, and integration of information. Examines applications including word processing, spreadsheet, database management, and presentation. Prerequisite: IMD 100 or Digital Literacy Course or Instructor Consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 210(3) Course ID: 006866
Advanced Illustrator
Introduces advanced techniques for the creation of vector-based (Bezier-geometry-based) artwork, including techniques for high-end illustrative and artistic projects. Emphasizes working with painterly and naturalistic brushes, photo-realistic vector-based image creation, advanced gradient mesh usage, advanced 3D techniques, integration with Adobe Flash, advanced workflow procedures, and other techniques intended for intermediate to advanced Adobe Illustrator users. Pre-requisite: IMD 127. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 221(3) Course ID: 016265
Computer Graphics
Introduces basic computer graphics with an emphasis on graphics for game design. Instructs students in practical aspects of graphics such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Pre-requisite: CIT 105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: CIT 221
Attributes: Technical

IMD 223(3) Course ID: 016266
3D Animation for Video Games
Introduces the use of 3D modeling software specific to the video-game industry. Emphasizes both architectural and character modeling. Familiarizes the student with key 3D modeling concepts and methods, workflow, and the creation and preparation of 3D assets for use specifically in a videogame application. Pre-requisite: CIT 221 OR IMD 221 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: CIT 222
Attributes: Technical

IMD 225(3) Course ID: 004791
Advanced Desktop Publishing
Requires the demonstration of vital pre-press and print production knowledge necessary for successful output of commercial graphic design projects. Emphasizes raster image creation, editing, and preparation for output; offset printing processes, color separations, spot color usage and preparation, vector graphic usage, font usages and standards, PDF document creation and preparation, and advanced desktop publishing techniques. Prerequisite: IMD 126 and IMD 127 and IMD 128. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 228(3) Course ID: 006833
Advanced Photoshop
Introduces advanced techniques for manipulating and editing raster (photo or pixel-based) graphics using industry-standard application(s). Examines new software features, advanced methods for file optimization and color correction, making complex selections and combining multiple images to create works of art, as well as development of a professional portfolio of raster art and photo editing and manipulation samples. Pre-requisite: IMD 115 and IMD 128. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 229(3) Course ID: 006886
Advanced Illustrator
Introduces advanced techniques for the creation of vector-based (Bezier-geometry-based) artwork, including techniques for high-end illustrative and artistic projects. Emphasizes working with painterly and naturalistic brushes, photo-realistic vector-based image creation, advanced gradient mesh usage, advanced 3D techniques, integration with Adobe Flash, advanced workflow procedures, and other techniques intended for intermediate to advanced Adobe Illustrator users. Pre-requisite: IMD 127. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
IMD 230(3) Course ID: 004793
Advanced Web Design
Explores existing and emerging web technologies through the role of web designers. Covers HTML, CSS and content management systems (CMS) for responsive web design. Instructs students in responsive website development using HTML, CSS and photo-editing software. Students will conclude the course via the creation of a comprehensive, dynamic, responsive website utilizing current technologies. Pre-requisite: IMD 180 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 232(3) Course ID: 004794
Web Design with Adobe Dreamweaver
Utilizes an advanced web authoring software application for design and development. Uses a professional WYSIWYG (what-you-see-is-what-you-get) editor to develop and create web pages, automate production, and manage and maintain entire websites. Builds XHTML, CSS, and web development knowledge to customize features and integrate applications. Prerequisite: IMD 133 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 235(3) Course ID: 004795
Advanced Word Processing
Students will learn current word processing software from intermediate skills through advanced utilization. Topics include producing customized documents, enhancing the visual display of documents, creating customized desktop publishing documents, organizing text in documents using advanced features, and integrating data utilizing various applications. Emphasis will be on mastering the software for optimal use. Prerequisite: IMD 210 or CIT 130, or equivalent skills. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 240(3) Course ID: 004796
Multimedia Development for the Web
Introduces students to the design and delivery of interactive and media-rich websites using professional, industry-standard software and web development technologies. Covers creating and integrating animation into web design, along with developing increasing interactivity and adding audio and video into a website. Covers publishing and integration with other web development applications. Prerequisite: IMD 133 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 250(3) Course ID: 005050
Digital Video Editing I
Covers the essentials of digital video within cinematic arts, including logging, capturing, editing, and basic composting. Students will capture and edit digital video using industry-standard desktop video software and export to DVD and the internet for use in entertainment, documentary films, commercials, and newscasts. Students will learn to storyboard, plan, and produce a digital video project from conception to final packaging. Prerequisite: IMD 100 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 255(3) Course ID: 007327
Digital Video Editing II
Covers advanced techniques within cinematic arts and editing such as multi-cam editing, color correction, advanced composting, basic audio editing and production, alpha channels, and special effects. Building on Digital Video Editing I, students will also focus on creating storyboards, quicker workflows, and trim editing using an industry-standard software program. Increased levels of pacing, timing, continuity, and visual aesthetics are emphasized. Students will shoot and edit their own video footage in this course. Cameras will be provided. Prerequisite: IMD 250 or consent of instructor. Lecture: 3 credits (45 contact hours).
Component: Lecture
Attributes: Technical

IMD 258(3) Course ID: 007328
Visual Effects for Video
Covers the creation of visual effects in cinematic arts including basic animation with text and 2D objects and 3D object creation and animation using an industry-standard visual effects software program. Students will focus on animating layers and working with masks, distortion, color correction, motion stabilizing, and particle simulation. Projects will be exported and packaged for the web and DVD. Pre-requisite: IMD 250 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

IMD 270(3) Course ID: 005214
Professional Practices
Designed to assist students develop strategies for entering the Information Management & Design profession by editing and refining portfolios and creating correspondence to meet professional standards, designing resumes and other self-promotional materials, developing a job search strategy, practicing interview techniques, and professional presentations. Prerequisite: sophomore status & preparing for job search. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 271(1 - 3) Course ID: 004797
Instructor Consent Required
Internship
Requires a minimum of 40 clock hours per credit hour of on-the-job experience to include a learning plan agreed upon by the student, instructor, and site supervisor. Prerequisite: Consent of Instructor, 2.0 GPA, IMD 270 and the completion of 9 additional credit hours of IMD course work. Practicum: 1.0 - 3.0 credits (40-120 contact hours).
Components: Practicum
Attributes: Technical

IMD 272(3) Course ID: 016268
Game Design Theory
Introduces students to the experience-oriented standards and techniques of gaming on a digital platform. Includes hands-on conceptualization and writing of a game created by the student. Emphasizes creativity, player experiences and motivations, styles of play, types of games, character creation, world creation, and story-driven narrative within a video game. Requires students to write a complete and industry-quality Game Design Document as a final project in this course which can serve as the basis for a fully-produced, playable video game in CIT/IMD273. Prerequisite: CIT124 OR IMD 124 OR Consent of Instructor. Lecture: 3.0 (45 contact hours).
Components: Lecture
Course Equivalents: CIT 272
Attributes: Technical

IMD 273(3) Course ID: 016269
Game Production
Provides students with the opportunity to produce a fully playable 3D video game using assets and materials created in previous courses; employs an industry-standard game engine to meld 3D content, audio, narrative, character, and environment into a professional and enjoyable video game experience. Pre-requisite: (CIT 222 OR IMD 222) AND (CIT 272 OR IMD 272) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: CIT 273
Attributes: Technical

IMD 274(3) Course ID: 016270
Seminar in Game Development
Encompasses the three phases of game design and development: conception, creation, and marketing in this project-oriented seminar. Requires participation in class presentations, individual and group projects, development of a game, and a portfolio. Pre-requisite: (CIT 223 OR IMD 223) AND (CIT 273 OR IMD 273) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: CIT 274
Attributes: Technical

IMD 275(3) Course ID: 004798
Information Management and Communications
Introduces management principles and techniques as they apply to various types of businesses. Includes research emphasis on information management, team concepts, personnel management, communications and business plans. Explores concepts within freelance, small business, and corporate entities. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 277(3) Course ID: 006837
Typography
Explores the use of typography in the context of graphic design and discover the importance of type as a tool for visual problem solving and communication. Explores origins of typography, font usage, the anatomy and different kinds of type, software used for type manipulation, and how basic principles and elements of design (color, hierarchy, form, rhythm, etc.) are applied to typography. Requires the development of portfolio individual typography-based designs. Pre-requisite: (IMD 115 and IMD 126 and IMD 127and IMD 128) or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 280(3) Course ID: 004799
Portfolio Practicum: Graphic Design
Provides an opportunity to assemble a comprehensive graphic design portfolio using skills learned within the IMD Graphic Design core courses, which will assess students overall graphic design skills. Provides IMD students with a professional design portfolio to aid in the search for employment. Provides the capstone for students choosing the graphics option. Uses presentation, vector, raster, and desktop publishing software to create design-intensive portfolio pieces. Prerequisite: (IMD 127 and IMD 128 and IMD 185 and IMD 226) or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 290(3) Course ID: 005779
Photography
Teaches students basic photography principles and skills to compose technically proficient photographs. Emphasis is on basic camera operations, with exploration of film speeds, apertures, and shutter speeds. Explores composition and elements of lighting. Uses slide lectures, a brief overview of contemporary photography to acquaint students with past and current photography. Lecture: 3 Credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 292(3) Course ID: 005215
Portfolio Practicum: Web Design
Requires a comprehensive web site design portfolio using skills learned in the IMD Web Design core courses to assess students overall skills learned in the web design option. Provides IMD students with a professional design portfolio to aid in the search for employment. Uses industry-standard design software programs and dynamic scripting languages to assemble the comprehensive design portfolio. Pre-requisite: IMD 133, 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

IMD 294(3) Course ID: 005799
Seminar IMD Technologies
Includes research, study, and discussion of a current or emerging topic, issue, or trend in information management and design technologies. May be repeated for different topic for a maximum of 6 credit hours. Prerequisite: IMD 100 or consent of instructor. Lecture:3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
This course is designed to expand course offerings as new technology is developed, as well as consider contemporary and/or emerging trends in information management and design. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Prerequisite: Consent of instructor. Lecture: 1.5 credits (15-45 contact hours).

Components: Lecture
Attributes: Technical

**IMG 209(3)**
Course ID: 005612
Clinical Practice III

Provides clinical experience through structured sequential competency based clinical assignments to include the upper and lower extremities, bony and visceral thorax, abdomen, visceral thorax, and abdomen. Prerequisite: IMG 118 and IMG 119 with a minimum grade of C. Clinical: 3.0 credits (180 contact hours).

Components: Clinical
Attributes: Technical

**IMG 210(4)**
Course ID: 004299
Radiography IV

Covers theories and principles involved in the production, control, and application of ionizing radiation in radiography. Emphasizes the development of a quality assurance program, quality control testing of radiographic equipment, and image intensification. Prerequisite: IMG 201 with a grade of "C" or greater. Co-requisite: IMG 211. Lecture: 3.0 credit (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**IMG 211(6)**
Course ID: 004300
Clinical IV

Continues IMG 201 to provide experience with equipment operation, application of patient care, set-up of correct technical factors for radiographic exposures, and positioning patients accurately for radiographic exams. Provides opportunities for more responsibility and independence with previously learned procedures. Prerequisite: IMG 201 with a grade of "C" or greater. Co-requisite: IMG 210. Clinical: 6.0 credits (360 contact hours).

Components: Clinical
Attributes: Technical

**IMG 214(2)**
Course ID: 005613
Imaging Equipment

Focuses on the types of imaging equipment used in radiography including x-ray imaging systems, fluoroscopy, tomography, screens, film, and angiographic equipment. Introduces quality management in radiography. Prerequisite: IMG 209 with a minimum grade of C. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**IMG 216(1)**
Course ID: 005614
Basic Computed Tomography

Examines basic computed tomography (CT), including imaging formation, equipment, and terminology, with focus on scanning techniques of the head, neck, chest, abdomen and pelvis, and sectional anatomy. Prerequisite: IMG 205 with a minimum grade of C. Lecture: 1.0 credit (16 contact hours).

Components: Lecture
Attributes: Technical
**Course Descriptions**

**IMG 219(6)**  
**Course ID:** 005618  
**Clinical Practice IV**  
Provides structured clinical experience through competency-based assignments that focus on the extremities, bony and visceral thorax, abdomen, vertebral column, and cranium. Includes arthrography and contrast studies of the digestive urinary, and central nervous systems, as well as basic CT scanning procedures. 
Prerequisite: IMG 209 with a minimum grade of C. Clinical: 6.0 credits (360 contact hours).  
Components: Clinical 
Attributes: Technical

**IMG 220(4)**  
**Course ID:** 004301  
**Radiography V**  
Introduces equipment and advanced modalities used to complement diagnostic radiology. Includes principles of radiation biology, protection, pathology and the systematic classification of disease. Provides a discussion of professional and legal standards. 
Prerequisite: IMG 210 with a grade of “C” or greater. 
Corequisite: IMG 221. Lecture: 3.0 credits (45 contact hours) Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture 
Attributes: Technical

**IMG 221(6)**  
**Course ID:** 004302  
**Clinical V**  
Continues IMG 211 to provide experience with equipment operation, application of patient care, set-up of correct technical factors for radiographic exposures, and positioning of patients accurately for radiographic exams. Provides opportunities for more responsibility and independence with previously learned procedures. 
Prerequisite: IMG 211 with a grade of “C” or greater. 
Corequisite: IMG 220. Clinical: 6.0 credits (360 contact hours).  
Components: Clinical 
Attributes: Technical

**IMG 224(2)**  
**Course ID:** 005615  
**Radiation Protection & Biology**  
Examines principles of radiation protection and measurement, as well as basic radiation biology principles, particularly the effects of various radiation levels on living organisms. 
Prerequisite: IMG 214 and IMG 216 and IMG 219 with a minimum grade of C. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture 
Attributes: Technical

**IMG 226(1)**  
**Course ID:** 005616  
**Radiographic Pathology**  
Examines concepts related to disease and etiology with emphasis on radiographic indicators of disease and their impact on exposure factor selection. 
Prerequisite: (IMG 214 and IMG 216 and IMG 219) with a minimum grade of C. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture 
Attributes: Technical

**IMG 228(2)**  
**Course ID:** 005619  
**Radiography Seminar**  
Introduces the format, rules, and regulations regarding certification by the American Registry of Radiologic Technologists (ARRT) and state certification requirements. 
Prerequisite: (IMG 214 and IMG 216 and IMG 219) with a minimum grade of C. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture 
Attributes: Technical

**IMG 229(6)**  
**Course ID:** 005617  
**Clinical Practice V**  
Provides structured clinical experience through competency-based assignments that focus on the extremities, bony and visceral thorax, abdomen, vertebral column, and cranium. Includes arthrography and contrast studies of the digestive urinary, and central nervous systems, as well as basic CT scanning procedures. 
Prerequisite: (IMG 214 and IMG 216 and IMG 219) with a minimum grade of C. Clinical: 6.0 credits (360 contact hours).  
Components: Clinical 
Attributes: Technical

**IMG 230(3)**  
**Course ID:** 004826  
**Sectional Anatomy for Advanced Medical Imaging**  
Provides content on computed tomography and magnetic resonance imaging (CT/MRI) procedures including patient care, image acquisition, and cross sectional anatomy. 
Prerequisite: (IMG 201 or IMG 216) with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture 
Attributes: Technical

**IMG 240(3)**  
**Course ID:** 006617  
**Pathology for Advanced Medical Imaging Modalities**  
Examines diseases commonly diagnosable via computed tomography (CT) and/or magnetic resonance imaging (MRI). Traces the disease or trauma process from its description, etiology, symptoms, and diagnosis with appearance on CT and/or MRI scans. 
Prerequisite: (IMG 201 or IMG 216) with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture 
Attributes: Technical

**IMG 250(3)**  
**Course ID:** 004827  
**Computed Tomography Physics & Instrumentation**  
Explores the physical principles and instrumentation involved in computed tomography (CT). Examines the history and evolution of CT, and the physics of radiation and CT. 
Prerequisite: (IMG 201 or IMG 216) with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture 
Attributes: Technical

**IMG 255(3)**  
**Course ID:** 004828  
**Magnetic Resonance Physics & Instrumentation**  
Examines the physical principles and instrumentation involved in magnetic resonance imaging (MRI). 
Prerequisite: (IMG 201 or IMG 216) with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture 
Attributes: Technical

**IMG 260(3)**  
**Course ID:** 005332  
**Computed Tomography Imaging Procedures**  
Explores the procedures, positioning, and equipment involved in computed tomography (CT) imaging. 
Prerequisite: (IMG 201 or IMG 216) with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture 
Attributes: Technical

**IMG 265(3)**  
**Course ID:** 004829  
**Magnetic Resonance Imaging Technology**  
Focuses on patient care and imaging areas of magnetic resonance imaging (MRI) and magnetic resonance angiography (MRA). Explores topics of image formation, tissue characteristics, resolution, imaging options, and parameters, post-processing, and patient characteristics. 
Prerequisite: (IMG 201 or IMG 216) with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture 
Attributes: Technical

**IMG 285(4)**  
**Course ID:** 015558  
**Computed Tomography Clinical Practice I**  
Provides a structured clinical experience through sequential competency-based assignments that focuses on the upper and lower extremities, bony and visceral thorax, abdominal and pelvic cavities, and cranium. Provides necessary clinical correlation of data acquisition concepts and basic scanning parameters. 
Prerequisite: (IMG 230 and IMG 260) with a minimum grade of C; ARRT certification and completion of Radiography Program.  
Components: Lecture 
Attributes: Technical

**IMT 100(3)**  
**Course ID:** 001578  
**Welding for Maintenance**  
Provides basic instruction needed for student to weld using SMAW (Stick), GMAW (MIG), GTAW (TIG), and Oxy-Fuel processes. 
Corequisite: (IMT 101 or (IMT 1011 - IMT 1014)) or Consent of Instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture 
Attributes: Course Also Offered in Modules, Technical

**IMT 101(2)**  
**Course ID:** 001579  
**Welding for Maintenance Lab**  
Provides application of basic welding skills used in SMAW (Stick), GMAW (MIG), GTAW (TIG) and Oxy-Fuel processes. 
Corequisite: IMT 100 or consent. Laboratory: 2 credits (60 contact hours).  
Components: Laboratory 
Attributes: Course Also Offered in Modules, Technical

**IMT 110(3)**  
**Course ID:** 001580  
**Industrial Maintenance Electrical Principles**  
Examines electrical principles and concepts that are applicable to electric power generation, transmission, and distribution. 
Prerequisite: (IMG 1014) or Consent of Instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture 
Attributes: Course Also Offered in Modules, Technical

**IMT 111(2)**  
**Course ID:** 001581  
**Industrial Maintenance Electrical Principles Lab**  
Provides laboratory application of industrial electrical concepts. 
Prerequisite: (IMG 1014) or Consent of Instructor. Laboratory: 2 credits (60 contact hours).  
Components: Laboratory 
Attributes: Course Also Offered in Modules, Technical

**IMT 115(2)**  
**Course ID:** 001582  
**Maintenance Machining I**  
Provides fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. 
Corequisite: IMT 116. Lecture: 2 credits (30 contact hours).  
Components: Lecture 
Attributes: Course Also Offered in Modules, Technical

**IMT 116(5)**  
**Course ID:** 001583  
**Maintenance Machining Lab I**  
Provides the application of fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. 
Corequisite: IMT 115 or Consent. Laboratory: 5 credits (150 contact hours).  
Components: Laboratory 
Attributes: Course Also Offered in Modules, Technical
IMT 120(3) Course ID: 001584
Industrial Maintenance Rotating Machinery
Students will learn the basic principles needed for the proper maintenance of AC and DC motors. Prerequisite: Permission of the Instructor.
Components: Lecture
Attributes: Technical

IMT 121(2) Course ID: 001585
Industrial Maintenance Rotating Machinery Lab
Provides practical experience in the construction, operation and maintenance of AC motors and alternators and DC motors and generators. Corequisite: IMT 120 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

IMT 140(3) Course ID: 005594
Industrial Mechanics
Introduces the fundamental principles of fluid power, mechanical systems, and the relationship between voltage, current, resistance, and power in electrical circuits. Presents a broad range of technical information used in industry today by technicians, mechanics, and maintenance personnel. Corequisite: IMT 141. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMT 141(1) Course ID: 005595
Industrial Mechanics Lab
Provides laboratory experience for constructing and adjusting basic fluid power circuits, installing and adjusting mechanical drive components, and taking measurements in operational AC and DC electrical circuits. Stresses the use of common hand tools, test instruments, safety, and troubleshooting. Corequisite: IMT 140. Lab: 1 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

IMT 150(3) Course ID: 001588
Maintaining Industrial Equipment I
Introduces the student to maintenance techniques and procedures used to maintain industrial equipment. Corequisite: IMT 151 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 151(2) Course ID: 001589
Maintaining Industrial Equipment I Lab
Provides the student with lab experience in the maintenance of industrial equipment. Corequisite: IMT 150 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 158(1 - 8) Course ID: 001590
Instructor Consent Required
Practicum
Provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Practicum do not receive compensation. Prerequisite: Permission of Instructor. Practicum: 1-8 credits (75-600 contact hours).
Components: Practicum
Attributes: Technical

IMT 159(1 - 8) Course ID: 001591
Instructor Consent Required
Cooperative Education
Provides supervised on-the-job work experience related to the student’s educational objective. Students participating in the Co-op Education program receive compensation for their work. Prerequisite: Permission of Instructor. Co-op: 1-8 credits (75-600 contact hours).
Components: Co-op
Attributes: Technical

IMT 200(4) Course ID: 007372
Industrial Robotics and Robotic Maintenance
Provides the industrial maintenance student an introduction to the theory of robots including applications, basic programming, components, industrial robotic safety standards, industrial robots classifications, key programming techniques, robotic motion concepts, and terminology. Instructs students on the concepts of preventive and predictive maintenance techniques required for a robot and their backup systems and recovery procedures. Provides the opportunity for the industrial maintenance student to develop, set up, and integrate work cells into manufacturing systems at a beginning level. Prerequisite: IMT 110 and IMT 111 or Consent of Instructor. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

IMT 202(3) Course ID: 001592
Industrial Maintenance Electrical Motor Controls I
Addresses the common symbols used in motor control circuits, the fundamentals of electrical schematics and wiring diagrams, the principles of relays, motor starters, switches, pilot devices, sensing devices, and indicator lights, and introduces the different types and operations of basic motor control circuits. Prerequisite: IMT 110, & IMT 111. Corequisite: IMT 221. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 221(2) Course ID: 001593
Industrial Maintenance Electrical Motor Controls I Lab
Includes an application of common symbols used in motor control circuits, fundamentals of electrical schematics and wiring diagrams, principles of relays, motor starters, switches, pilot devices, sensing devices, and indicator lights, and the different types and operations of basic motor control circuits. Prerequisite: (IMT 110 and IMT 111) or consent of instructor. Corequisite: IMT 220. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 222(2) Course ID: 006422
Industrial Maintenance Motor Controls II
Provides advanced study of motor controls in industry. Addresses open and closed loop control systems, servo motors, encoders, AC and DC motors and industry standard color coding. Prerequisite: (IMT 110 and IMT 111 and IMT 220 and IMT 221) or Consent of Instructor. Corequisite: IMT 223. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 223(2) Course ID: 006437
Industrial Maintenance Motor Controls II Lab
Provides advanced study of motor controls in industry. Addresses open and closed loop control systems, servo motors, encoders, AC and DC motors and industry standard color coding. Prerequisite: (IMT 110 and IMT 111 and IMT 220 and IMT 221) or Consent of Instructor. Corequisite: IMT 222. Laboratory: 2 credits (60 hours).
Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 230(5) Course ID: 001594
Industrial Maintenance of PLCs
This course includes the theory of programmable logic controllers to include installation, programming, interfacing, and troubleshooting of industrial PLC’s. Prerequisite: IMT 240
Components: Lecture
Attributes: Technical

IMT 231(2) Course ID: 001595
Industrial Maintenance of PLC’s Lab
Addresses the diversity of PLC control devices and applications used in industry today. Safety and electrical lockouts are also included. Prerequisite: (IMT 110 and IMT 111) or IMT 130 and 131 with a grade of “C” or greater) or Consent of Instructor. Corequisite: IMT 230 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

IMT 240(6) Course ID: 001596
Industrial Maintenance Motor Control Concepts
Addresses the diversity of control devices and applications used in industry today with safety and electrical lockouts included. The basic theory of programmable logic controllers is also included. Prerequisite: (IMT 110 and IMT 111) or (IMT 130 and IMT 131) with a grade of “C” or greater) or Consent of Instructor. Corequisite: IMT 241 or Consent of Instructor. Lecture: 6 credits (90 contact hours).
Components: Lecture
Attributes: Technical

IMT 250(2) Course ID: 001598
Maintaining Industrial Equipment II
Integrates the student’s accumulative knowledge from the IMT 150 and IMT 151 courses. Emphasizes troubleshooting techniques and applied machine repair situations that require the student to apply learned skills from all areas of the curriculum. Prerequisite: (IMT 150 and IMT 151) with a grade of “C” or greater or consent of instructor. Corequisite: IMT 251 or consent of instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

IMT 251(3) Course ID: 001599
Maintaining Industrial Equipment II Lab
Complements IMT 250 and consists of advanced, specified and assigned machine repair tasks. Prerequisite: (IMT 150 and IMT 151) with a grade of “C” or greater or consent of instructor. Corequisite: IMT 250 and consent of instructor. Laboratory: 3.0 credits (90 contact hours). Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

IMT 260(7) Course ID: 006546
Presswork and Die Maintenance
Includes the fundamental concepts and machining operations needed by the industrial maintenance technician to be proficient in the field of stamping press and die maintenance. Prerequisite: IMT 100 and IMT 101 and (IMT 115 & IMT 116) or (IMT 114) or (IMT 110 & MT 112) or consent of instructor. Lecture: 2 credits (30 contact hours). Lab: 5 credits (150 contact hours).
Components: Lecture
Attributes: Technical

IMT 280(3) Course ID: 001600
Advanced Programmable Logic Controllers
Covers advanced theory programmable logic controllers to include designing applications, programming, interfacing and troubleshooting of industrial PLCs. Prerequisite: (IMT 220 and IMT 221) with a grade of "C" or greater or (equivalent) or Consent of Instructor. Corequisite: IMT 281 or Instructor Consent.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 281(2) Course ID: 001601
Programmable Logic Controllers Lab
Provides practical applications of the theory in IMT 280 to include installation, programming, interfacing and troubleshooting of industrial PLCs. Prerequisite: (IMT 220 and IMT 221) with a grade of "C" or greater) or Consent of Instructor. Corequisite: IMT 280 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 288(1) Course ID: 007373
Industrial Maintenance Technology Capstone
Serves as the capstone course for the Industrial Maintenance Technology degree program. Integrates prior learning outcomes into a single integrated learning experience. Includes preparation or an exit exam that all program graduates must take. Prerequisite: (BRX 120 or ELT 102) and FPX 100 and FPX 101 and IMT 100 and IMT 101 and IMT 110 and IMT 111 and IMT 150 and 151 and IMT 220 and IMT 221) or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical
Course Descriptions

IMT 290(1 - 3) Course ID: 001602
Instructor Consent Required
Special Problems
Provides an opportunity to develop advanced skills in topics related to industrial maintenance. Prerequisite: Consent of Instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory
Attributes: Technical

IMT 1001(0.75) Course ID: 005915
Welding for Maintenance Safety
Provides basic instruction needed for student to weld using Oxy-Fuel. Corequisite: IMT 1011 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1002(0.75) Course ID: 005916
Welding for Maintenance SMAW (Stick Welding)
Provides basic instruction needed for student to weld using Shielded Metal Arc Welding (SMAW). Corequisite: IMT 1012 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1003(0.75) Course ID: 005917
Welding for Maintenance GMAW (MIG Welding)
Provides instruction of setup and use of GMAW (MIG welding) equipment. Corequisite: IMT 1013 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1004(0.75) Course ID: 005918
Welding for Maintenance GTAW (TIG Welding)
Provides instruction of setup and use of GTAW (TIG welding) equipment. Corequisite: IMT 1014 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1011(0.5) Course ID: 005919
Welding for Maintenance Safety and Cutting Lab
Provides application of welding safety and use of oxy-fuel cutting equipment. Corequisite: IMT 1001 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1012(0.5) Course ID: 005920
Welding for Maintenance SMAW (Stick Welding) Lab
Provides application of setup and use of SMAW (stick welding) equipment. Corequisite: IMT 1002 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1013(0.5) Course ID: 005921
Welding for Maintenance GMAW (MIG Welding) Lab
Provides application of setup and use of GMAW (MIG welding) equipment. Corequisite: IMT 1003 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1014(0.5) Course ID: 005922
Welding for Maintenance GTAW (TIG Welding) Lab
Provides application of setup and use of GTAW (TIG welding) equipment. Corequisite: IMT 1004 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1151(0.2) Course ID: 006406
General Shop Knowledge
Includes fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. Corequisite: IMT 1161 or Consent of Instructor. Lecture: 0.2 credit (3 contact hours).
Components: Lecture

IMT 1152(0.1) Course ID: 006407
Vertical and Horizontal Bandsaw Operations
Introduces vertical and horizontal bandsaw operations including the selection of feeds and speeds as well as blade welding. Corequisite: IMT 1162 or Consent of Instructor. Lecture: 0.1 credit (1.5 contact hours).
Components: Lecture

IMT 1153(0.3) Course ID: 006408
Drill Press Operations and Procedures
Introduces drill press operations including the selection of feeds and speeds, layout, drill bit selection and sharpening, and precision drilling operations. Corequisite: IMT 1163 or Consent of Instructor. Lecture: 0.3 credit (4.5 contact hours).
Components: Lecture

IMT 1154(0.8) Course ID: 006409
Lathe Operations and Procedures
Introduces lathe operations including lathe components, grinding tool bits, the selection of feeds and speeds, turning operations, and threading. Prerequisite: IMT 1151 or Consent of Instructor. Corequisite: IMT 1164 or Consent of Instructor. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

IMT 1155(0.6) Course ID: 006410
Milling Machine and Surface Grinder Operations and Procedures
Introduces milling and surface grinding operations including vise alignment, trammng, selection of feeds and speeds, form tools, dressing grinding wheels. Prerequisite: IMT 1151 or Consent of Instructor. Corequisite: IMT 1165 or Consent of Instructor. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

IMT 1161(0.5) Course ID: 006411
General Shop Knowledge Lab
Includes the application of fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. Corequisite: IMT 1151 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1162(0.5) Course ID: 006412
Vertical and Horizontal Bandsaw Operations Lab
Introduces vertical and horizontal bandsaw operations including the selection of feeds and speeds as well as blade welding. Corequisite: IMT 1152 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1163(0.5) Course ID: 006413
Drill Press Operations and Procedures Lab
Introduces drill press operations including the selection of feeds and speeds, layout, drill bit selection and sharpening, and precision drilling operations. Corequisite: IMT 1153 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1164(2) Course ID: 006414
Lathe Operations and Procedures Lab
Introduces lathe operations including lathe components, grinding tool bits, the selection of feeds and speeds, turning operations, and threading. Corequisite: IMT 1154 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory

IMT 1165(1.5) Course ID: 006415
Milling Machine and Surface Grinder Operations and Procedures Lab
Introduces milling and surface grinding operations including vise alignment, trammng, selection of feeds and speeds, form tools, dressing grinding wheels. Prerequisite: IMT 1161 or Consent of Instructor. Corequisite: IMT 1155 or Consent of Instructor. Laboratory: 1.5 credit (45 contact hours).
Components: Laboratory

IMT 2201(1) Course ID: 006416
Introduction to Motor Controls
Addresses the importance of electrical safety and the general fundamentals of motor controls. Prerequisite: (IMT 110 and IMT 111) or Consent of Instructor. Corequisite: IMT 2221. Lecture: 1 credit (15 contact hours).
Components: Lecture

IMT 2202(1) Course ID: 006417
Motor Starters and Pilot Devices
15Addresses the diversity of motor starters, control devices, and circuitry. Introduces the different types and operations of basic control circuits while reinforcing the common symbols used in motor control circuits as well as interpreting and drawing electrical schematics and wiring diagrams. Prerequisite: IMT 2201 or Consent of Instructor. Corequisite: IMT 2212. Lecture: 1 credit (15 contact hours).
Components: Lecture

IMT 2231(0.5) Course ID: 006419
Introduction to Motor Controls Lab
Addresses the importance of electrical safety and the general fundamentals of motor controls. Corequisite: IMT 2201. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules

IMT 2213(1) Course ID: 006421
Motor Control Circuits Lab
Explores aspects of electrical symbols and specialized motor control circuits. Prerequisite: IMT 2202 or Consent of Instructor. Corequisite: IMT 2222. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2202(0.5) Course ID: 006420
Motor Starters and Pilot Devices Lab
Addresses the diversity of motor starters, control devices, and circuitry. Prerequisite: IMT 2211 or Consent of Instructor. Corequisite: IMT 2202. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2222(0.6) Course ID: 006423
Principles in Process Control and Automation
Explores industry standards related to color coding of industrial wiring control cabinets. Provides for troubleshooting techniques using electrical hand tools and developing and interpreting troubleshooting flow charts to determine phase failure and voltage drops. Prerequisite: (IMT 110 and IMT 111) or Consent of Instructor. Corequisite: IMT 2232. Lecture: 0.7 credit (10.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

IMT 2220(0.7) Course ID: 006432
Industry Standards for Control Circuit Wiring and Troubleshooting Methods
Covers industry standards related to color coding of industrial wiring control cabinets. Provides for troubleshooting techniques using electrical hand tools and developing and interpreting troubleshooting flow charts to determine phase failure and voltage drops. Prerequisite: (IMT 110 and IMT 111) or Consent of Instructor. Corequisite: IMT 2222. Laboratory: 0.7 credit (10.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

IMT 2232(0.7) Course ID: 006433
Principles in Process Control and Automation
Covers industry standards related to color coding of industrial wiring control cabinets. Provides for troubleshooting techniques using electrical hand tools and developing and interpreting troubleshooting flow charts to determine phase failure and voltage drops. Prerequisite: (IMT 110 and IMT 111) or Consent of Instructor. Corequisite: IMT 2222. Laboratory: 0.7 credit (10.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules
### INS Insurance

**INS 100(3) Course ID: 006586**  
Introduction to Insurance and Risk Management  
Introduces property-casualty insurance and is a foundation for the study of insurance. Provides information on types of insurance, providers, regulatory environment, and performance measures. Describes the function of marketing, underwriting and claims. Covers insurance as a contract, introduces both property and liability loss exposure and policy provisions, and provides a basic discussion of risk management as a means of managing loss exposures. Pre-requisite: Reading, English, and Mathematics assessment scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

**INS 181(3) Course ID: 006587**  
Foundations of Insurance Production  
Introduces principles of insurance production and agency and sales management. Emphasizes insurance products and insurance markets in the context of personal lines coverages as well as limited commercial lines coverages. Pre-requisite: Reading and English assessment scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s). INS 100 or consent. MT 150 or above. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

**INS 182(3) Course ID: 006588**  
Multiple Lines Insurance Production  
Introduces principles of multiple lines insurance production. Emphasizes insurance product and insurance markets in the context of commercial lines coverages. Pre-requisite: INS 181. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

**INS 183(3) Course ID: 006589**  
Agency Operations and Sales Management  
Focuses on the producer’s office environment and sales management techniques. Emphasizes how management concepts can be applied to the producer’s sales and to the business of running an agency. Pre-requisite: INS 182. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

### IRW Integrated Reading and Writing

**IRW 85(4) Course ID: 015875**  
Integrated Reading and Writing I  
Emphasizes proficiency in reading comprehension, vocabulary, and critical thinking skills to prepare students for college reading through individualized and/or group instruction and practice. Applies writing as a process with emphasis on paragraph-length assignments, basic conventions of standard English as these apply to students’ own work, writing in response to reading, and the use of technology to produce and share writing. Pre-requisite: COMPASS score in writing: 50-73 and COMPASS score in reading 77-82. Lecture: 4.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Reading/English

**IRW 95(4) Course ID: 007214**  
Integrated Reading and Writing  
Emphasizes critical reading skills to develop vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in texts. Applies writing as a process with instruction in intermediate writing skills and technology emphasizing organization, idea development through critical thinking, and editorial improvements through multi-paragraph writing. Introduces basic research and documentation through writing in response to reading. Pre-requisite: COMPASS score in writing: 50-73 and COMPASS score in reading 77-82. Lecture: 4.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Reading/English

### ISM Instrumentation and Process

**ISM 102(4) Course ID: 003972**  
Fundamentals of Instrumentation  
Introduces concepts of instrumentation devices and laboratory techniques used for monitoring and controlling manufacturing processes. Includes component identification and application, basic conversions, accuracy of measuring devices, tubing use and selection, repair procedures and the theory of operation and calibration of pressure, and process measuring instruments. Covers the need for calibration and the use of various calibration standards. Includes safety precautions, and regulations encountered in the instrumentation field. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

**ISM 210(4) Course ID: 003976**  
Fundamentals of Process Control  
Provides theoretical and practical experience in the operation of process control systems. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

### ISX Industrial Safety

**ISX 100(3) Course ID: 001622**  
Industrial Safety  
This course provides practical training in industrial safety. The students are taught to observe general safety rules and regulations, to apply work site and shop safety rules, and to apply OSHA regulations. Students are expected to obtain certification in first aid and cardiopulmonary resuscitation.  
Components: Lecture  
Attributes: Technical

**ISX 105(0.67) Course ID: 015673**  
10-hour General Industry  
Provides entry level workers with information about their rights and employer responsibilities. Emphasizes hazard identification, avoidance, control and prevention. Lecture: 0.67 credits (10 contact hours).  
Components: Lecture

**ISX 105(1.33) Course ID: 015674**  
General Industry Topics  
Introduces the history of the safety movement under the standards of the Occupational Safety and Health Administration (OSHA). Emphasizes hazard identification, avoidance, control and prevention. (Covers selected topics and standards for general industry under OSHA.) OSHA certificate may be available upon successful completion of all required course topics (and must be within six months of completing ISX 1051). Pre-requisite OR Co-requisite: ISX 1051. Lecture: 1.33 credits (20 contact hours).  
Components: Lecture

### ITE Team Dynamics and Problem Solving

**ITE 233(3) Course ID: 004618**  
Statistical Process Control  
Introduces students to the principles and methods used for controlling the quality of goods produced. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

**ITE 250(3) Course ID: 004619**  
Team Dynamics and Problem Solving  
Emphasizes the use of a systematic problem-solving model while building skills for team members and leaders. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

### ITP Interpreter Training Program

**ITP 115(3) Course ID: 005590**  
Heritage and Culture of Deaf People  
Overviews of the psychological, sociocultural and cultural impacts of deafness upon children and adults. Explores how deafness can affect the individual's development in language, communication, cognition and psychological-emotional growth. Examines historic relations between deaf and hearing, and compares deaf culture with that of the hearing world. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: University Course (Eastern Kentucky University)

**ITP 210(3) Course ID: 005757**  
Application of Fingerspelling and Numbering Systems  
This course will focus on aspects of receptive and expressive fingerspelling usage, including lexicalized fingerspelling and various numbering systems within ASL. Prerequisite: ASL 201 with a minimum of “C” or permission of instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical
Invasive Cardiology

Invasive Cardiology I
Examines the anatomy and physiology of the cardiovascular system and the diseases found within the system. Introduces the student to radiological procedures and protocols used in the cardiac catheterization lab, and instruction in advanced cardiac life support (ACLS). Introduces correct techniques used by Invasive Cardiology Technologists during specific procedures performed in the cardiac catheterization lab. Discusses the hemodynamics, pharmacology, and calculations encountered in the cardiac catheterization lab. Pre-requisite DMS 105. Lecture: 16.0 credits (240 contact hours).

Components: Lecture
Attributes: Technical

Invasive Cardiology II
Addresses radiology principles, scrub and circulating principles and devices used to obtain optimal outcomes in the cardiac catheterization lab. Introduces procedures, such as MRI and CT, used outside of the cardiac catheterization lab for evaluation of the cardiovascular system. Discusses the monitor and electrophysiology principles, ventricular assist devices, coronary artery bypass grafts and cardiac transplantation procedures performed in the cardiac catheterization lab. Emphasizes the preparation, protocol and interventional procedures for a pediatric catheterization lab. Pre-requisite: DMS 105.

Components: Lecture
Attributes: Technical

Invasive Cardiology Clinical Education II
Applies invasive cardiology instruction to the cardiac catheterization laboratory clinical setting. Participation in the responsibilities of the invasive cardiovascular technology, with emphasis on scrub and cathulate duties. Introduces electrophysiology laboratory procedures. Pre-requisite: IVC 160. Clinical: 6.0 credits (360 contact hours).

Components: Clinical
Attributes: Technical

JAT Journalism - Advertising - Telecommunications

JAT 101(3) Course ID: 002222
Introduction to Communication Media
Lectures, readings, and other materials provide an introductory survey of the journalism, advertising, and telecommunication professions. This course will foster an understanding of the historical development, theory, effects, regulation, practice, and professional opportunities of these three industries. Students will gain an awareness of the possibilities and limitations of evolving communication technologies, preparing them to become intelligent consumers, producers, and managers of communication media. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

JAT 241(1-4)
Communications Practicum
Supervised laboratory work in the media of mass communications, with meetings for evaluation of work, study of techniques, analyses of problems, and reports. May be repeated to a maximum of four credits. (Offered in Community College System only.) Independent Study 1.0 - 4.0 credit (15 contact hours)

Components: Independent Study
Attributes: Other

JPN Japanese

JPN 101(4) Course ID: 003862
Beginning Japanese I
A course in first semester Japanese language. Lecture: 4 credits (60 contact hours)

Components: Lecture
Attributes: Foreign Language, Cultural Studies

JPN 102(4)
Beginning Japanese II
A course in second semester Japanese language. Prerequisite: JPN 101 or equivalent. Lecture: 4 credits (60 contact hours)

Components: Lecture
Attributes: Foreign Language, Cultural Studies

JPN 201(3) Course ID: 003994
Intermediate Japanese I
Focuses on developing listening, speaking, reading and writing skills in early intermediate level of Japanese. Prerequisite: JPN 102/RAE 121 or equivalent. Lecture: 3 credits (45 contact hours)

Components: Lecture
Attributes: Other

JPN 202(3) Course ID: 004208
Intermediate Japanese II
Focuses on developing listening, speaking, reading and writing skills in upper intermediate level of Japanese. Prerequisite: JPN 201. Lecture: 3 credits (45 contact hours)

Components: Lecture
Attributes: Other

KHP Kinesiology and Health Promotion

KHP 100(1) Course ID: 002299
Walking
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)

Components: Laboratory
Attributes: Other

KHP 101(1) Course ID: 002300
Weightlifting
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)

Components: Laboratory
Attributes: Other

KHP 104(1) Course ID: 002304
Beginning Swimming
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)

Components: Laboratory
Attributes: Other

KHP 106(1) Course ID: 002306
Beginning Bowling
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)

Components: Laboratory
Attributes: Other

KHP 107(1) Course ID: 002307
Fitness
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)

Components: Laboratory
Attributes: Other

KHP 109(1) Course ID: 002309
Dancing
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)

Components: Laboratory
Attributes: Other

KHP 115(1) Course ID: 002315
Martial Arts
Provides students with beginning instruction and experience in self-defense, basic exercise, and disciplines associated with martial arts. Pre-requisite: KHP 115. Lab: 1 credit (30 contact hours)

Components: Laboratory
Attributes: Other

KHP 116(1) Course ID: 002316
Intermediate Martial Arts
Provides students with intermediate instruction and experience in basic exercise and disciplines associated with martial arts. Pre-requisite: KHP 115. Lab: 1 credit (30 contact hours)

Components: Laboratory
Attributes: Other

KHP 121(1) Course ID: 002321
Aerobics
Includes beginning conditioning activities and/or vigorous nonstop rhythmic movement patterns designed to improve cardiovascular endurance for students at all levels of fitness. Lab: 1 credit (30 contact hours)

Components: Laboratory
Attributes: Other

KHP 122(1) Course ID: 002322
Low-Impact Aerobics
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit.

Components: Laboratory
Attributes: Other

KHP 123(1)
Basketball
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit.

Components: Laboratory
Attributes: Other

KHP 124(1) Course ID: 002324
Conditioning
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)

Components: Laboratory
Attributes: Other

KHP 129(1) Course ID: 002229
Beginning Weight Training
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)

Components: Laboratory
Attributes: Other

KHP 130(1)
Water Aerobics
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)

Components: Laboratory
Attributes: Other

KHP 132(1) Course ID: 002332
Nautilius
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)

Components: Laboratory
Attributes: Other
KHP 134(1)  Course ID: 002334  
**Cross-training**
Instruction in a variety of motor skills activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

KHP 135(1)  Course ID: 002335  
**Swimming for Fitness**
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

KHP 136(1)  Course ID: 002336  
**Advanced Walking for Fitness**
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (30 contact hours)  
Components: Laboratory  
Attributes: Other

KHP 138(1)  Course ID: 003855  
**Beginning Yoga**
Provides students with instruction and activities associated with beginning yoga. Lab: 1 credit (30 contact hours)  
Components: Laboratory  
Attributes: Other

KHP 139(1)  Course ID: 003856  
**Lifetime Sports**
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit.  
Components: Laboratory  
Attributes: Other

KHP 140(1)  Course ID: 002341  
**Advanced Weight Training**
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Laboratory: 3 hours. Prerequisite: Completion of comparable service course or demonstrated competency  
Components: Laboratory  
Attributes: Other

KHP 142(1)  Course ID: 002342  
**Advanced Aerobics**
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Laboratory: 3 hours. Prerequisite: Completion of comparable service course or demonstrated competency  
Components: Laboratory  
Attributes: Other

KHP 143(1)  Course ID: 002343  
**Intramurals**
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Laboratory: 3 hours. Prerequisite: Completion of comparable service course or demonstrated competency  
Components: Laboratory  
Attributes: Other

KHP 145(3)  Course ID: 003870  
**Concepts of Health and Fitness**
Current concepts of health and fitness covering such topics as the benefits of physical fitness, principles of fitness training, prevention of cardiovascular disease, and basic concepts of nutrition and weight management. Emphasis will be on the promotion of health lifestyles. Lecture: 3 credits (45 contact hours)  
Components: Lecture  
Attributes: Other

KHP 146(1)  Course ID: 016371  
**Intermediate Yoga**
Provides students with intermediate instruction and activities associated with yoga. Laboratory: 1 credit (30 contact hours), Lab: 1 credit (30 contact hours). Pre-requisite or Co-requisite: KHP 146.  
Components: Laboratory  
Attributes: Other

KHP 149(1)  Course ID: 016372  
**Advanced Yoga**
Provides students with advanced instruction and activities associated with yoga. Laboratory: 1 credit (30 contact hours), Lab: 1 credit (30 contact hours). Pre-requisite or Co-requisite: KHP 146.  
Components: Laboratory  
Attributes: Other

KHP 150(3)  Course ID: 006816  
**Personal Health Behavior**
Prepares students to make informed choices about health issues and behaviors and to take responsibility for their health and well-being. Lecture: 3.0 credits (45 contact hours)  
Components: Lecture  
Attributes: Technical

KHP 160(3)  Course ID: 006817  
**Personal Nutrition and Fitness**
Introduces the importance of daily diet and nutrition. Addresses the role of the personal trainer in helping clients to recognize and decrease risks for chronic diseases. Lecture: 3.0 credits (45 contact hours)  
Components: Lecture  
Attributes: Technical

KHP 190(2)  Course ID: 000029  
**First Aid and Emergency Care**
A study of first aid subject matter and orientation in the various first aid teaching methods. Lectures and demonstrations on first aid measures with skill training. American Red Cross Certificate made available. Lecture: 1 hour, Laboratory: 2 hours  
Components: Laboratory, Lecture  
Attributes: Other

KHP 225(3)  Course ID: 006818  
**Exercise Techniques and Physical Training**
Focuses on the core components of personal training. Provides information and resources necessary to pass personal fitness trainer certification. Pre-requisite: BIO 135 or MSQ 100. Co-requisite: KHP 235. Lecture: 3.0 credits (45 contact hours)  
Components: Lecture  
Attributes: Other

KHP 230(3)  Course ID: 000379  
**Human Health and Wellness**
The study of health promotion, wellness, and disease prevention concepts as applied to individual, familial, and community health.  
Components: Lecture  
Attributes: Other

KHP 235(2)  Course ID: 006820  
**Personal Trainer Practicum**
Students will apply personal training principles and techniques and demonstrate skills with clients in various settings under instructor and preceptor supervision. Pre-requisite: BIO 135 or MSQ 100. Co-requisite: KHP 225. Practicum: 2.0 credits (60 contact hours).  
Components: Practicum  
Attributes: Other

KHP 240(3)  Course ID: 002226  
**Nutrition and Physical Fitness**
Focuses on the inter-relationship between nutrition and physical fitness. Provides the student with the information necessary to formulate an individualized plan for achievement and maintenance of adequate nutrition and physical fitness while addressing weight control. Lecture: 3 credits (45 contact hours).  
Components: Laboratory, Lecture  
Attributes: Other

LAS 201(3)  Course ID: 015525  
**Introduction to Latin America**
An interdisciplinary approach to the people, culture, and development of the Latin American republics. Attention will be concentrated on significant aspects of the indigenous peoples, geography, economic processes, gender roles, social structures and politics of Latin America, with special attention paid to value structures and value conflicts. Musical, literary and artistic expression in Latin America will also be introduced. Lecture: 3.0 credits (45 contact hours)  
Components: Lecture  
Attributes: AH - Arts and Humanities, University Core (University of Kentucky)

LEAD Leadership Studies

LEAD 200(3)  Course ID: 006761  
**Introduction to Leadership Studies**
The purpose of the course is to provide students a better understanding of leadership from multiple angles and perspectives. Students will explore the different ways leadership has been defined and studied. Students enrolled in this course will read leadership theory, discuss leadership concepts, and discuss cases portraying leaders who exemplify or challenge these theories. Additionally, students will explore the relevance of leadership theory and concepts to the work that will perform as future leaders in their careers and communities. Lecture: 3.0 credits (45 contact hours)  
Components: Lecture  
Attributes: University Core (Western Kentucky University)

LIN Library Informatics

LIN 173(3)  Course ID: 015967  
**Information Literacy**
A foundational course that introduces students to the cross-disciplinary skills needed to assess information needs, and access and evaluate information sources. Lecture: 3.0 credits (45 contact hours)  
Components: Lecture  
Attributes: SB - Social Behavior Science, University Core (Northern Kentucky University)
**LIT 115(3) Course ID: 004801**

**Introduction to Reference Services**
Introduces reference services for libraries. Includes reference interview techniques, print and digital information sources, bibliographic and full-text databases, and digital access and retrieval tools. Lecture: 3 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 120(3) Course ID: 007416**

**Readers' Advisory Services**
Examines library advisory services. Includes readers’ advisory resources, library programming, book discussion groups, collection development, formats for books, ebooks and audio books, online applications, and marketing. Pre-requisite: LIT 115 or permission of instructor. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 124(3) Course ID: 004802**

**Library Administration**
Introduces basic principles of library organization and management. Includes the planning process, policies, ethical and legal issues, budgeting, and human resources. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 132(3) Course ID: 004803**

**Library Technical Services**
Provides an overview of library technical services, including acquisitions, processing, cataloging and classification. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 200(3) Course ID: 005218**

**Seminar in Kentucky Literature**
This is an online or computer-assisted seminar course in Kentucky literature recognizing, examining, and studying distinct regional differences and similarities with concentration on major contemporary and traditional Kentucky writers and their texts. Topics will vary, from a group of authors, and historical period or aesthetic movement, to a genre, a theme, or an aspect of literary theory. Lecture: 3 credits (45 contact hours).

**Components:** Lecture
**Course Equivalents:** HUM 245

**LIT 230(3) Course ID: 004804**

**Web Publishing for Libraries**
This is a course in web publishing for library web sites, including HTML code, web page authoring software, web page and web site design, and trends in library web sites. This is a distance education course with a service learning component. Prerequisite: LIT 115 or consent of instructor. Lecture: 3 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 240(3) Course ID: 004805**

**Literature of Appalachian Kentucky**
This is an online or computer-assisted introductory survey course in the Appalachian literature of Kentucky concentrating on the major contemporary and traditional writers who are distinctly identified with that region. Approaches may include a group of authors, an historical period, or aesthetic movement, a genre, a theme, or an aspect of literary theory. Lecture: 3 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 242(3) Course ID: 004806**

**Literature of Western Kentucky**
This is an online or computer-assisted introductory survey course in the literature of Western Kentucky which concentrating on the major contemporary and traditional writers who are distinctly identified with that region. Approaches may include a group of authors, an historical period, or aesthetic movement, a genre, a theme, or an aspect of literary theory. Lecture: 3 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 243(3) Course ID: 004807**

**Library Services for Children**
Introduces library services for children grades K - 6 and their caregivers. Includes surveys of child development, library programming, children’s literature, collection development, and legal issues. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 245(3) Course ID: 005083**

**Library Services for Young Adults**
Introduces library services for young adults from 8th to 12th grades. Includes programming, collection development, young adult literature, the use of the Internet, and ethical and legal issues. Emphasizes the development and promotion of young adult library services. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 247(3) Course ID: 004808**

**Library Services for Adults**
Introduces library services for adults. Includes adult literature, collection development, programming, circulation services, reference services, and customer relations. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 248(3) Course ID: 004809**

**Library Services for Preschool Children**
Introduces library services for preschool children, age infant to 5 years. Includes library programming development and production, preschool children’s literature, services for parents and for child care services, collection development, and legal issues. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 280(3) Course ID: 004810**

**Genealogy Services in Libraries**
Introduces genealogy services in libraries. Surveys genealogy data sources, research methods, collection development, patron referrals, legal and ethical issues, library programming, and marketing. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 285(3) Course ID: 005051**

**History of Libraries**
This course is a survey of the development of libraries from ancient times to the present, with emphasis on academic and public libraries in the United States. Attention is given to the interaction of libraries with economic, social and political trends in the larger society. Prerequisite: LIT 115 or consent of instructor. Lecture: 3 credit (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LIT 299(1 - 3) Course ID: 004811**

**Selected Topics in Library Information Technology**
Expands library course offerings as new technologies develop and/or as new issues evolve. Lecture: 1.0 - 3.0 credits (15-45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LOM 101(3) Course ID: 006828**

**Transportation Management**
Presents an overview of the role of transportation and pricing issues; transportation modes and terminals; and transportation risk management and global management issues. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LOM 102(3) Course ID: 006829**

**Supply Chain Management**
Presents an overview of supply chain management and financial analysis; inventory management skills and techniques; and supply chain design and sustainability solutions. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LOM 180(3) Course ID: 004629**

**Project Management**
Introduces practical approach to managing essential resources, people, and deadlines, and real-world challenges required to bring any project in on time, on target, and on budget. Covers skills and concepts of essential project management processes, defining requirements, scheduling, risk management assessment, change control, and project management software applications. Provides students with a practical approach to developing projects with opportunities to apply skills and elements by completing activities based upon real-time projects and case studies. Prerequisite: Digital literacy or consent of instructor. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LOM 202(3) Course ID: 006830**

**Applied Supply Chain Management**
Provides an understanding of the importance of individual components (supplies, manufacturers, distributors, and customers) in the operation of a supply chain. Pre-requisite: LOM 102. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

**LOM 210(3) Course ID: 016149**

**Lean for Logistics**
Introduces students to the principles and practices of lean operations in relation to the field of logistics. Incorporates a lean simulation activity and examples from lean practitioners in the management of supply chain operations. Discusses core lean principles with an emphasis on work cells and Just In Time (JIT) practices. Pre-requisite or Co-requisite: LOM100 Introduction to Logistics Management. Lecture: 3.0 credits (45 contact hours)/

**Components:** Lecture
**Attributes:** Technical

**LOM 100(4) Course ID: 016726**

**Logistics Concepts**
Presents an overview of general logistics concepts and organizational issues, inventory management, and customer service in logistics. Lecture: 2.0 credits (30 contact hours).

**Components:** Lecture

**LOM 105(1) Course ID: 016727**

**Logistics of Transportation**
Presents an overview of transportation and third party logistics. Pre-requisite: LOM 1004. Lecture: 1.0 credits (15 contact hours).

**Components:** Lecture

**LOM 101(1) Course ID: 015579**

**Transportation Overview**
Presents an overview of the role of transportation and pricing issues. Pre-requisite: LOM 100. Lecture: 1.0 credit (15 contact hours).

**Components:** Lecture
LOM 101(2)  Course ID: 015574
Transportation Modes
Pre-requisite: LOM 1011. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

LOM 103(1)  Course ID: 015575
Global Transport
Pre-requisite: LOM 1012. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

LOM 102(1)  Course ID: 015576
Supply Chain Overview
Pre-requisite: LOM 100. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

LOM 102(2)  Course ID: 015577
Supply Chain Skills
Pre-requisite: LOM 1021. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

LOM 103(1)  Course ID: 015578
Supply Chain Sustainability
Pre-requisite: LOM 1022. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

LOM 180(1)  Course ID: 016373
Project Management Overview
Components: Lecture

LOM 180(2)  Course ID: 016374
Project Management Activities
Components: Lecture

LOM 180(3)  Course ID: 016375
Using Microsoft Project
Components: Lecture

LOM 201(1)  Course ID: 016376
Intro to Supply Chain Mgmt
Components: Lecture

LOM 202(1)  Course ID: 016377
Benefits of Supply Chain Mgmt
Components: Lecture

LOM 202(2)  Course ID: 016378
Utilizing Supply Chain Mgmt
Components: Lecture

LSI 120(4)  Course ID: 004403
Comprehensive Security Specialist
Components: Laboratory, Lecture
Attributes: Technical

LSI 130(4)  Course ID: 004404
GSA: Locks, Vaults & Containers Certified Technician Training
Components: Laboratory, Lecture
Attributes: Technical

LSI 140(1)  Course ID: 004406
Managing Terrorism and Other Crises
Components: Lecture
Attributes: Technical

MA 108R(3)  Course ID: 006621
Intermediate Algebra
Components: Lecture

MA 109(3)  Course ID: 005805
College Algebra
Components: Lecture
Attributes: Remedial - Mathematics, University Course (University of Kentucky)

MA 110(4)  Course ID: 006622
Algebra and Trigonometry for Calculus
Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)
MA 111(3) Course ID: 004907
Contemporary Mathematics
An introduction to concepts and applications of mathematics, with examples drawn from such areas as voting methods, apportionment, consumer finance, graph theory, linear equations, number theory and game theory. This course is not available for credit to persons who have received credit in any mathematics course of a higher number with the exceptions of MA 112, 123, 162, 201 and 202. This course does not serve as a Prerequisite for any calculus course. Credit not available on that basis of special examination. Prerequisite: Two years of high school algebra and a Math ACT score of 19 or above, or MA 108, or math placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 112(2) Course ID: 006624
Trigonometry
A standard course. Includes trigonometric functions, identities, multiple-angle formulas, laws of sines and cosines, and graphs of trigonometric functions. This course is not available to persons who have received credit for any mathematics course of a higher number with the exception of MA 113, 123, 132 and 162. Credit not available by special examination. Pre-requisites: Two years of high school algebra and a Math ACT score of 21 or above or a Math SAT score of 510 or above; or MA 108R; or appropriate score on the math placement test. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 113(4) Course ID: 006625
Calculus I
A course in one-variable calculus, including topics from analytic geometry. Derivatives and integrals of elementary functions (including the trigonometric functions) with applications. Lecture, three hours; recitation, two hours per week. Pre-requisites: Math ACT score of 27 or above, or math SAT of 620 or above, or MA 109 (UK) and MA 112 (UK), or MA 110 (UK), or consent of the department. Students who enroll in MA 113 based on their test scores should have completed a year of pre-calculus study in high school that includes the study of the trigonometric functions. Note: Math placement test recommended. Lecture: 3.0 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).
Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 114(4) Course ID: 006626
Calculus II
A continuation of MA 113, primarily stressing techniques of integration. Lecture, 3 hours; recitation, 2 hours per week. Pre-requisites: High school trigonometry or MA 112 (UK); and a grade of "C" or better in MA 113 (UK) or MA 132 (UK). Lecture: 3.0 credit hours (45 contact hours). Discussion: 1.0 credit (30 contact hours).
Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 123(4) Course ID: 006627
Elementary Calculus and Its Applications
An introduction to differential and integral calculus, with applications to business and the biological and physical sciences. Not open to students who have credit in MA 113. Students who have received credit for MA 113 cannot receive credit for MA 123. Pre-requisites: Math ACT score of 26 or above, or Math SAT of 600 or above, or MA 109 (UK) or appropriate math placement score, or consent of department. Note: Math placement test recommended. Lecture: 4.0 credit hours (60 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 162(3) Course ID: 006628
Finite Mathematics and Its Applications
Finite mathematics with applications to business, biology, and the social sciences. Linear functions and inequalities, matrix algebra, linear programming, probability. Emphasis on setting up mathematical models from stated problems. Pre-requisites: MA 109 (UK) or equivalent. Lecture 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 192(1) Course ID: 006629
Supplementary Mathematics Workshop I
Laboratory offered (only) as an adjunct to certain mathematics lecture courses. Offered only on a pass/fail basis. Co-requisites: Set by instructor. Lab 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: University Course (University of Kentucky)

MA 194(1) Course ID: 006630
Supplementary Mathematics Workshop II
Laboratory offered (only) as an adjunct to certain mathematics lecture courses. Offered only on a pass/fail basis. Co-requisites: Set by instructor. Lab 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: University Course (University of Kentucky)

MA 201(3) Course ID: 006631
Mathematics for Elementary Teachers
Sets, numbers and operations, problem solving and number theory. Recommended only for majors in elementary and middle school education. Pre-requisites: MA 109 (UK) or MA 111 (UK). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 202(3) Course ID: 006632
Mathematics for Elementary Teachers
Algebraic reasoning, introduction to statistics and probability, geometry, and measurement. Pre-requisites: A grade of "C" or better in MA 201 (UK). Also recommended: a course in logic (e.g. PHI 120) or a course in calculus (e.g. MA 123 (UK)). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 213(4) Course ID: 006633
Calculus III
MA 213 is a course in multivariate calculus. Topics include three dimensional vectors calculus, partial derivatives, double and triple integrals, sequences, and infinite series. Lecture, 3 hours; recitation, 2 hours per week. Pre-requisites: MA 114 (UK) or equivalent. Lecture: 3.0 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).
Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 214(3) Course ID: 006634
Calculus IV
MA 214 is a course in ordinary differential equations. Emphasis is on first and second order equations and applications. The course includes series solutions of second order equations and Laplace transform methods. Pre-requisites: MA 213 or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 241(3) Course ID: 006635
Geometry for Middle School Teachers
A course in plane and solid geometry designed to give middle school mathematics teachers the knowledge needed to teach a beginning geometry course. Cannot be counted toward the mathematics minor or major. Pre-requisites: One semester of calculus or MA 201 (UK) with a grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MAI 105(3) Course ID: 004342
Introduction to Medical Assisting
Introduces rights, roles, responsibilities and functions of the medical assistant including personal and professional awareness, communication, interpersonal relationships, psychological concepts, ethics and legalities. Lecture: 3 credits (45 contact hours). Prerequisite: Acceptance into the Medical Assisting program or consent of Medical Assisting Coordinator/Director.
Components: Lecture
Attributes: Technical

MAI 120(3) Course ID: 004090
Medical Assisting Laboratory Techniques I
Introduces theory and practical application in the physician's office laboratory including anatomy and physiology, patient preparation, specimen collection and transport, processing and testing, blood collection and prevention of disease transmission. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Prerequisite: Acceptance into the Medical Assisting Program or consent of Medical Assisting Coordinator/Director.
Components: Laboratory, Lecture
Attributes: Technical

MAI 140(4) Course ID: 004091
Medical Assisting Clinical Procedures I
Introduces clinical skills and techniques used in the physician's office laboratory including anatomy and physiology, patient preparation, specimen collection and transport, processing and testing, blood collection and prevention of disease transmission. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Prerequisite: Acceptance into the Medical Assisting Program or consent of Medical Assisting Coordinator/Director.
Components: Lecture
Attributes: Technical

MAI 159(3) Course ID: 004092
Medical Assisting Administrative Procedures I
Provides knowledge of the duties required in an office with emphasis placed on a medical office environment. Course content includes communication with patients and co-workers, completion of medical office forms, telephone techniques, filing office correspondence, mail processing, appointment scheduling, processing medical records, and an introduction to medical office computer software. Lecture: 3 credits (45 contact hours). Prerequisite: Acceptance into the Medical Assisting program or consent of Medical Assisting Coordinator/Director.
Components: Lecture
Attributes: Technical

MAI 170(2) Course ID: 004093
Dosage Calculations
Provides a review of basic mathematic skills related to dosage calculations, a thorough knowledge of the systems of measurement and conversion, and application skills to perform dosage calculations. Lecture: 2 credits (30 contact hours). Prerequisite: Consent of Medical Assisting Coordinator/Director.
Components: Lecture
Attributes: Technical
MAI 200(3) Course ID: 004094
Pathophysiology for the Medical Assistant
Provides instruction related to common acquired diseases, congenital conditions, injuries, illnesses, and trauma situations as related to the major body systems. Prerequisite: (BIO 135 or BIO 137 and BIO 139) and (CLA 131 or AHS 115 or AHS 120 or MIT 103) or Consent of Medical Assisting Coordinator/Director. All prerequisites must be achieved with a grade of “C” or greater. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MAI 220(3) Course ID: 004095
Medical Assisting Laboratory Techniques II
Relates to laboratory procedures waived complexity testing performed in the physician’s office laboratory. Stresses CLIA and OSHA regulations. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Prerequisite: MAI 120 with a grade of “C” or greater.
Components: Laboratory, Lecture Attributes: Technical

MAI 230(3) Course ID: 004096 Department Consent Required
Medical Insurance
Introduces fundamentals of insurance processing and coding for the medical office, with focus on proper procedures for accurate coding systems using the ICD, CPT and HCPCS coding system. Lecture: 3 credits (45 contact hours). Prerequisite: Consent of Program Coordinator/Director.
Components: Lecture Attributes: Technical

MAI 240(4) Course ID: 004097
Medical Assisting Clinical Procedures II
Continues instruction and application techniques for specialty examination, diagnostic testing and treatment modalities. Emphasizes fundamentals and practical application of minor office surgical procedures. Lecture: 3 credits (45 contact hours); Lab: 1 credit (45 contact hours). Prerequisite: MAI 140 with a grade of “C” or greater OR Consent of Program Coordinator.
Components: Laboratory, Lecture Attributes: Technical

MAI 250(3) Course ID: 004098
Medical Assisting Administrative Procedures II
Focuses on compiling and completing financial and insurance claim forms. Includes banking concepts, accounting systems frequently used in the medical office, patient procedures, insurance plans and claims, paper and electronic billing methods, and professional fees. Prerequisite: MAI 150 with a grade of “C” or greater OR Consent of Program Coordinator. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MAI 270(3) Course ID: 004100
Pharmacology for the Medical Assistant
Examines pharmacology with concentration on prescriptions, drug nomenclature, complications, patient education, medication preparation and administration. Prerequisite: MAI 170 and (BIO 135 or BIO 137 and BIO 139) and (AHS 115 or AHS 120 or CLA 131 or MIT 103) with a grade of “C” or better) or Consent of Medical Assisting Program Coordinator/Director. Lecture: 2.0 credits (30 contact hours); Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MAI 281(1) Course ID: 004101
Medical Assisting Practicum
Provides introductory practical experience (unpaid) through observation and work assignments in a healthcare setting. Clinical: 1 credit (60 contact hours). Prerequisite: Consent of Medical Assisting Program Coordinator/Director.
Components: Clinical Attributes: Technical

MAI 282(3) Course ID: 004102
Medical Assisting Externship
Allows the student to apply knowledge, perform administrative and clinical procedures, and develop professional attitudes for interacting with other professionals and consumers in the health care field by means of externship assignments (unpaid). Prerequisite: MAI 281 and Consent of Medical Assisting Program Coordinator/Director. Clinical: 3.0 credits (180 contact hours).
Components: Clinical Attributes: Technical

MAI 284(2 - 3) Course ID: 015672
Medical Assisting Externship
Allows the student to apply knowledge, perform administrative and clinical procedures, and develop professional attitudes for interacting with other professionals and consumers in the health care field by means of externship assignments (unpaid). Prerequisite: MAI 281 and Consent of Medical Assisting Program Coordinator/Director. Practicum: 2.0 - 3.0 credits (120-180 contact hours).
Components: Practicum Attributes: Technical

MAT 54A(1.6) Course ID: 007338
Integers, Fractions and Decimals
Covers the properties of real numbers, prime factorization of whole numbers, rounding of whole numbers, and decimals to an indicated place value. Includes basic operations, order of operations, and absolute value on integers, fractions and decimals. Permits the conversion among fractions, decimals, and percents; evaluation of whole number powers of integers, fractions, and decimals; and the evaluation of square roots of perfect squares of integers, fractions, and decimals. Pre-requisite: KCTCS Placement examination. Lecture: 1.6 credits (24 contact hours).
Components: Lecture Attributes: Remedial - Mathematics

MAT 55B(0.7) Course ID: 007339
Algebraic Expressions
Includes the evaluation of algebraic expressions, simplifying algebraic expressions, solving problems involving ratio and proportion, and solving problems involving percent. Pre-requisite: MAT 055A. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture Attributes: Remedial - Mathematics

MAT 55C(0.7) Course ID: 007340
Beginning Linear Equations
Uses both the addition and multiplication properties to solve a linear equation. Includes how to determine the length of the unknown side of a right triangle using the Pythagorean Theorem and to determine the perimeter, circumference, area, surface area, and volume of basic plane figures and solids. Covers how to solve applied problems using these competencies with real world applications. Pre-requisite: MAT 055B. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture Attributes: Remedial - Mathematics

MAT 62(3) Course ID: 007375
Intro to Workplace Mathematics
Prepares students for Business Mathematics, Applied Mathematics, and Technical Mathematics. Includes properties of algebra, using formulas, solving linear equations, percentages, ratios, proportions, plotting points, graphing lines, exponents, and measurement. Encourages applications of algebra and effective use of technology. Pre-requisite: MAT 055 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Remedial - Mathematics

MAT 65(3) Course ID: 004556
Basic Algebra
Includes linear equations and inequalities, integer exponents, polynomials, factoring, equations of lines and their graphs, systems of linear equations, and applications. Prerequisite: MAT 055 or KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Remedial - Mathematics

MAT 65A(0.8) Course ID: 007341
Linear Equations and Inequalities
Includes solving linear equations, one variable, literal equations for a specified variable, and linear inequalities. Covers writing sets using interval and set-builder notation and translating verbal statements into algebraic expressions. Pre-requisite: MAT 055 or KCTCS Placement examination. Lecture: 0.8 credits (12 contact hours).
Components: Lecture Attributes: Remedial - Mathematics

MAT 65B(0.5) Course ID: 007342
Polynomials
Includes the application of rules of integer exponents; addition, subtraction, and multiplication of polynomials of one or more variables; and division of polynomials of one variable. Pre-requisite: MAT 005A. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture Attributes: Remedial - Mathematics
MAT 65C(0.8) Course ID: 007343
Lines
Includes plotting points in the rectangular coordinate plane; graphing a linear equation in two variables using multiple methods, determining the slope of a line given the two points, a graph, or an equation; determining the intercepts of a line; and determining if two lines are parallel, perpendicular, or neither based on slope. Pre-requisite: MAT 065B. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 65D(0.5) Course ID: 007344
Factoring
Includes the factoring of polynomials by finding the greatest common factor, by grouping, and by using special products. Covers factoring general trinomials and solving polynomial equations by factoring. Pre-requisite: MAT 065C. Lecture: 0.5 credits (7.5 contact hours).
Components: Laboratory
Attributes: Remedial - Mathematics
MAT 65E(0.4) Course ID: 007345
Systems of Linear Equations
Includes solving systems of linear equations in two variables using multiple methods and solving applied problems using these competencies with real world applications. Pre-requisite: MAT 065D. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 75(4) Course ID: 015659
Mathematical Literacy
Develops the mathematical thinking skills and understanding needed for non-math and non-science majors, in a one-semester course integrating numeracy, proportional reasoning, algebraic reasoning, and functions. Provides an alternate path to college-level math courses other than college algebra. Pre-requisite: MAT 085 or equivalent as determined by KCTCS placement examination. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 85(3) Course ID: 007045
Intermediate Algebra
Includes rational expressions, radical expressions, rational exponents, graphing parabolas, inequalities, equations of lines, functions and applications, with emphasis on solving quadratic, rational, and radical equations. Pre-requisite: MAT 065 or MAT 075 or KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 96(1 - 2) Course ID: 015815
Supplemental Mathematics
Provides academic support for students scoring below the system-wide standard into a quantitative-reasoning course. Serves as supplemental co-requisite for students with borderline test scores, as defined in the KCTCS course placement policy. If students withdraw from MAT 96, they must also withdraw from the co-requisite course. Co-requisite: A quantitative-reasoning course requiring supplemental instruction. Lecture: 1.0 - 2.0 credits (15 - 30 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 100(2) Course ID: 002374
College Algebra Workshop
Provides parallel and supplemental review of algebra skills needed for success in college algebra for students with a Math ACT of 19-21. (Credit not available by special exam; withdrawal from MAT 100 requires withdrawal from MAT 150; can be offered pass/fail or letter grade basis.) Lecture: 2 credits (30 contact hours). Prerequisite: Concurrent enrollment in MAT 150. NOTE: Effective Fall 2010 ACT 19.
Components: Lecture
Attributes: Other, Course Also Offered in Modules
MAT 105(3) Course ID: 004557
Business Mathematics
Covers basic mathematical concepts as applied to finance. Includes percentages, simple and compound interest, annuities, sinking funds, depreciation, and consumer debt, including installment buying, credit cards, and mortgages. Prerequisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS
MAT 110(2) Course ID: 006558
Applied Mathematics
Includes the concepts of ratio and proportion, units and conversions, linear equations in two variables, inequalities, graphing and writing equation of a line, percent, interest, descriptive statistics, and logical symbolism. Emphasizes applications in the various technologies. Prerequisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules
MAT 116(3) Course ID: 004559
Technical Mathematics
Includes some mathematical concepts from algebra, geometry, and trigonometry and applications relevant to these topics. Includes unit conversions, variation, measurement of geometric figures, vectors, and solving right and oblique triangles using trigonometry. Emphasizes applications in the various technologies. Prerequisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules
MAT 126(3) Course ID: 004562
Technical Algebra and Trigonometry
Examines mathematical concepts from algebra and trigonometry. Includes vectors, phasor algebra, variation, trigonometric functions, coordinate systems, system of linear equations, quadratic, rational, exponential and logarithmic equations. Prerequisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules
MAT 146(3) Course ID: 002375
Contemporary College Mathematics
Serves as a course in quantitative reasoning and problem solving intended for non-science majors. Includes voting methods, finance, population growth, and at least two additional topics chosen from: apportionment, geometry, logic, probability and statistics, graph theory, number theory, game theory, and set theory. Prerequisite: 1. Math ACT score of 23 or above, 2. Math ACT score of 19 or above, and 3. Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 4. Placement exam recommendation.
Components: Lecture
Attributes: QR - Quantitative Reasoning
MAT 150(3) Course ID: 002376
College Algebra
Includes selected topics in algebra and analytic geometry. Develops manipulative skills and concepts required for further study in mathematics. Includes linear, quadratic, polynomial, rational, exponential, logarithmic and piecewise functions; systems of equations; and an introduction to analytic geometry. (Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of special exam.) Lecture: 3 credits (45 contact hours). Prerequisites: 1. Math ACT score of 22 or above, 2. Math ACT score of 19 or above with concurrent MAT 100 workshop, 3. Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 4. KCTCS placement exam recommendation.
Components: Lecture
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules
MAT 154(2) Course ID: 000552
Trigonometry
Includes trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions, and inverse trigonometric functions. Prerequisite: Completion of a college intermediate algebra course or two years of high school algebra. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Same As Offering: MAT 154 Course Equivalents: MAT 155 Attributes: QR - Quantitative Reasoning
MAT 155(3) Course ID: 004563
Trigonometry
Includes trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions, and inverse trigonometric functions. Emphasizes applications in each topic. (Students may not receive credit for both MAT 155 and any other trigonometry or precalculus course.) Lecture: 3 credits (45 contact hours). Prerequisites: 1. Math ACT score of 22 or above, 2. Math ACT score of 19 or above with concurrent MAT 150, 3. Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 4. Placement exam recommendation.
Components: Lecture
Course Equivalences: MAT 154, MAT 154 Attributes: QR - Quantitative Reasoning
MAT 159(4) Course ID: 000543
Analytic Geometry and Trigonometry
Includes trigonometric functions, trigonometric identities, graphs of trigonometric functions, and inverse trigonometric functions, polynomial and rational functions, the Algebra of functions, exponential and logarithmic functions, and systems of equations. The course is not available for credit by special examination. The course is not available for credit to persons who have received credit for college algebra or trigonometry course. Prerequisite: Two years of high school algebra and a Math ACT score of 19 or above, or MA 108R (UK) or math placement test. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Course Equivalences: MAT 160 Attributes: QR - Quantitative Reasoning
MAT 160(5) Course ID: 005312
Precalculus
Prepares students to enroll in a calculus sequence. Includes trigonometric functions, exponentials and logarithms, graphs, polar coordinates, conic sections, and systems of nonlinear equations. Students may not receive credit for both MAT 160 and either College Algebra or Trigonometry. Credit is not available by special examination. Lecture: 5 credits (75 contact hours). Prerequisite: 1. Math ACT score of 23 or above, 2. Placement exam recommendation, or 3. Consent of instructor.
Components: Lecture
Course Equivalences: MAT 159 Attributes: QR - Quantitative Reasoning
MAT 165(3) Course ID: 005313
Finite Mathematics and its Applications
Examines finite mathematics with applications to business, biology and the social sciences including linear functions and inequalities, matrix algebra, linear programming, probability with emphasis on setting up mathematical models from stated problems. Lecture: 3 credits (45 contact hours). Prerequisite: MAT 150 or equivalent.
Components: Lecture
Attributes: QR - Quantitative Reasoning
MAT 170(3) Course ID: 005314  
**Brief Calculus with Applications**  
Provides an introduction to differential and integral calculus with applications in biological sciences, social sciences, physical sciences, or business with an analysis of algebraic, exponential, and logarithmic functions. (Students may not receive credit for both MAT 170 and MAT 175.)  
Lecture: 3 credits (45 contact hours). Prerequisite: Successful completion of MAT 150 or Math ACT 27 or above.  
Components: Lecture  
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules  
MAT 174(4) Course ID: 000553  
**Calculus I**  
Includes topics from analytic geometry, derivatives and integrals of elementary functions, trigonometric functions, exponential functions, and logarithmic functions, and their applications. A course in one variable calculus. Prerequisite: MATH ACT score of 27 or above, or MAT 150 and MAT 154, or MAT 159, or consent of instructor. Lecture/Lab: 4.0 credits (75 contact hours).  
Components: Lecture  
Course Equivalents: MAT 175  
Attributes: QR - Quantitative Reasoning  
MAT 175(5) Course ID: 005315  
**Calculus I**  
Examines one-variable calculus including limits, differentiation and integration of algebraic, trigonometric, exponential, logarithmic, hyperbolic, and inverse trigonometric functions with applications. Lecture: 5 credits (75 contact hours). Prerequisite: 1. College Algebra and Trigonometry, or equivalent, with grades of "C" or higher, 2. Math ACT 27 or above, 3. Placement exam recommendation, or 4. Consent of instructor.  
Components: Lecture  
Course Equivalents: MAT 174  
Attributes: QR - Quantitative Reasoning  
MAT 184(4) Course ID: 000557  
**Calculus II**  
Stresses techniques of integration and infinite series. Includes transcendental functions and polar coordinates. A continuation of MAT 174. Prerequisite: MAT 174 with a grade of "C" or above. Lecture/Lab: 4.0 credits (75 contact hours).  
Components: Lecture  
Course Equivalents: MAT 185  
Attributes: QR - Quantitative Reasoning  
MAT 185(5) Course ID: 005316  
**Calculus II**  
Includes applications of integration, advanced integration techniques, sequences and infinite series, and parametric and polar equations. Prerequisite: Calculus I, or equivalent, with grade of "C" or higher, or consent of the instructor. Lecture: 5.0 credits (75 contact hours).  
Components: Lecture  
Course Equivalents: MAT 184  
Attributes: QR - Quantitative Reasoning  
MAT 190(1 - 2) Course ID: 004564  
**Instructor Consent Required Mathematics Workshop**  
Promotes student success in mathematics by providing supplemental instruction in the form of extra class sessions. Prerequisite: Mathematics course numbered higher than MAT 100. Lab: 1.0 - 2.0 credits (30-60 contact hours).  
Components: Laboratory  
Attributes: Other  
MAT 195(1 - 2) Course ID: 015479  
**Mathematics Workshop**  
Promotes student success in mathematics by providing supplemental instruction in the form of extra class sessions. Co-requisite: Mathematics course numbered higher than MAT 100. Lab: 1.0-2.0 credits (30-60 contact hours).  
Components: Laboratory  
Attributes: Other  
MAT 205(3) Course ID: 005622  
**Mathematics For Elementary and Middle School Teachers I**  
Introduces problem solving, number and numeration systems, whole numbers, integers, rational and irrational numbers, and elementary number theory. Required demonstration of basic skills in mathematics to receive credit in this course. Prerequisite: MAT 146 or MAT 150 or equivalent, with a minimum grade of "C". Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Other  
MAT 206(3) Course ID: 005623  
**Mathematics For Elementary and Middle School Teachers II**  
Introduces probability and statistics; geometric concepts including congruence and similarity; and measurement. Required demonstration of basic skills in mathematics to receive credit in this course. Prerequisite:MAT 146 or MAT 150 or equivalent, with a minimum grade of "C". Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Other  
MAT 213(4) Course ID: 006894  
**Calculus III with Linear Algebra**  
Examines multivariate calculus. Includes partial differentiation, multiple integration, vector calculus, and selected topics from linear algebra including matrices, linear independence of vectors, linear transformations, characteristic values and vectors. Offered primarily for STEM majors. Prerequisite: Successful completion of Calculus II. Lecture/Lab: 4.0 credits (75 contact hours).  
Components: Lecture  
Attributes: Other  
MAT 214(3) Course ID: 006895  
**Calculus IV**  
Focuses primarily on first and second order equations. Includes matrix solutions of systems of linear differential equations, both homogeneous and nonhomogeneous. Also includes series solutions, Bessel equations, Laplace transforms, and operator methods. Primarily for STEM majors. Pre-requisite: Successful completion of Calculus III with Linear Algebra. Lecture: 3.0 credits (75 contact hours).  
Components: Lecture  
Attributes: QR - Quantitative Reasoning  
MAT 261(3) Course ID: 003966  
**Introduction to Number Theory**  
Investigates topics from classical number theory, including discussions of mathematical induction, prime numbers, division algorithms, congruences, and quadratic reciprocity. Prerequisite: Consent of instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: QR - Quantitative Reasoning  
MAT 275(4) Course ID: 005318  
**Calculus III**  
Examines multivariate calculus including parametric equations; rectangular, cylindrical, and spherical coordinate systems; vectors and vector-valued functions; limits and derivatives of functions of several variables; multiple integration; and line and surface integrals. Prerequisite: MAT185 or equivalent, or Consent of instructor. Lecture: 4 credits (60 contact hours).  
Components: Lecture  
Attributes: QR - Quantitative Reasoning  
MAT 285(3) Course ID: 005319  
**Differential Equations**  
Examines ordinary differential equations emphasizing first and second order equations and applications. Includes series solutions of second order equations and Laplace transform methods. Prerequisite: MAT275 or Consent of instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: QR - Quantitative Reasoning  
MAT 851(0.3) Course ID: 007329  
**Equations of Lines**  
Covers the writing equations of lines from given data, verbal descriptions, and graphs; and writing the equation of a line parallel or perpendicular to a given line. Pre-requisite: MAT 065 or MAT 075 or KCTCS placement examination. Lecture: 0.3 credits (4.5 contact hours)  
Components: Lecture  
Attributes: Remedial - Mathematics  
MAT 852(0.6) Course ID: 007330  
**Absolute Value and Inequalities**  
Includes solving absolute value equations, compound inequalities; solving and graphing absolute value inequalities; and graphing linear inequalities in two variables. Pre-requisite: MAT 0851. Lecture: 0.6 credits (9.0 contact hours).  
Components: Lecture  
Attributes: Remedial - Mathematics  
MAT 853(0.4) Course ID: 007331  
**Rational Expressions**  
Includes the simplification of rational expressions, performing basic operations with rational expressions, and solving equations with rational expressions. Pre-requisite: MAT 0852. Lecture: 0.4 credits (6.0 contact hours).  
Components: Lecture  
Attributes: Remedial - Mathematics  
MAT 854(0.6) Course ID: 007332  
**Radicals**  
Covers the conversion between radical and rational exponent form, simplification of radicals, performance of operations with radicals, and the solution of equations involving radicals. Pre-requisite: MAT 0853. Lecture: 0.6 credits (9.0 contact hours).  
Components: Lecture  
Attributes: Remedial - Mathematics  
MAT 855(0.3) Course ID: 007333  
**Quadratics**  
Includes solving quadratic equations with complex solutions using completing the square and the quadratic formula. Covers graphing parabolas by finding the vertex, finding the axis of symmetry, and plotting points. Pre-requisite: MAT 0854. Lecture: 0.3 credits (4.5 contact hours).  
Components: Lecture  
Attributes: Remedial - Mathematics  
MAT 856(0.8) Course ID: 007334  
**Functions**  
Includes the evaluation of a function using function notation, determination of whether a given correspondence or graph represents a function, determination of the domain of a function, [and] identification of the range of a function. Includes modeling and solving applications based on linear, quadratic, and exponential functions. Pre-requisite: MAT 0855. Lecture: 0.8 credits (12 contact hours).  
Components: Lecture  
Attributes: Remedial - Mathematics  
MAT 1101(0.7) Course ID: 006142  
**Logic and Reasoning**  
Investigates concepts of logical symbolism, valid and invalid arguments. Uses applications throughout. Prerequisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.7 credit (10.5 contact hours).  
Components: Lecture  
MAT 1102(0.8) Course ID: 006143  
**Statistics**  
Develops concepts of descriptive statistics. Emphasizes applications throughout. Prerequisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.8 credit (12 contact hours).  
Components: Lecture  
MAT 1103(0.7) Course ID: 006144  
**Algebra and Graphing**  
Develops concepts of ratio and proportion, linear equations in two variables, inequalities, graphing and writing the equation of a line. Emphasizes applications throughout. Prerequisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture:0.7 credit (10.5 contact hours).  
Components: Lecture
MAT 1104(0.8) Course ID: 006145
Consumer Math, Geometry and Measurement
Develops concepts of ratio and proportion, measurement, units and conversions, percents and interest. Emphasizes applications throughout. Prerequisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

MAT 1161(1) Course ID: 006438
Technical Trigonometry
Investigates mathematical concepts from trigonometry including vectors and solving right and oblique triangles. Uses applications relevant to trigonometry from the various technologies. Prerequisite: MAT 65 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

MAT 1162(1) Course ID: 006439
Technical Measurement
Investigates mathematical concepts from algebra and geometry. Uses applications from the various technologies relevant to these topics including unit conversion and measurement of geometric figures. Prerequisite: MAT 65 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

MAT 1461(0.4) Course ID: 015855
Voting Theory
Explain voting theory and describe voting methods. Pre-requisite: Math ACT score of 19 or above, 2) Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 3. KCTCS placement exam recommendation. Lecture: 0.4 credits (6 contact hours)
Components: Lecture

MAT 1462(1.1) Course ID: 015856
Finance
Analyze finances, calculate compound interest, analyze savings plans and investments, calculate installment loan payments, calculate income taxes, and analyze budgets. Pre-requisite: MAT 1461. Lecture: 1.1 credits (16.5 contact hours)
Components: Lecture

MAT 1463(0.5) Course ID: 015857
Population Growth
Calculate linear, exponential, and logarithmic growth. Pre-requisite: MAT 1462. Lecture: 0.5 credits (7.5 contact hours)
Components: Lecture

MAT 1464(1) Course ID: 015858
Contemporary Math Special Topics
Analyze concepts and perform calculations in at least two of the special topics in contemporary college mathematics: Apportionment, probability and statistics, geometry, logic, graph, theory, number theory, game theory and set theory. Pre-requisite: MAT 1463. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

MAT 1501(0.8) Course ID: 006146
Linear and Quadratic Functions
Develops manipulative skills and concepts of linear and quadratic functions required for further study in mathematics. Includes systems of equations. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Prerequisite: Math ACT score of 22 or above; Successful completion of Intermediate Algebra or MAT 126 or equivalent; or KCTCS placement exam recommendation. Lecture: 0.8 credit (12 contact hours)
Components: Lecture

MAT 1502(0.8) Course ID: 006147
Polynomial, Rational and Piecewise Functions
Develops manipulative skills and concepts of polynomial, rational and piecewise functions required for further study in mathematics. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Prerequisite: MAT 1501. Lecture: 0.8 credit (12 contact hours)
Components: Lecture

MAT 1503(0.8) Course ID: 006148
Exponential and Logarithmic Functions (Exponential & Logarithmic Functions)
Develops manipulative skills and concepts of exponential and logarithmic functions required for further study in mathematics. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Prerequisite: MAT 1502. Lecture: 0.8 credit (12 contact hours)
Components: Lecture

MAT 1504(0.6) Course ID: 006149
Applications of Functions
Includes selected topics in algebra and analytic geometry. Develops manipulative skills and concepts required for further study in mathematics. Includes an introduction to analytic geometry. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Prerequisite: MAT 1503. Lecture: 0.6 credit (9 contact hours)
Components: Lecture

MAT 1601(0.7) Course ID: 016544
Graphing Techniques
Prepares students to enroll in a calculus sequence. Includes graphing techniques for functions and circles. Prerequisites: One of the following: 1) Math ACT score of 23 or above, 2) Placement exam recommendation or 3) Consent of instructor. Lecture: 0.7 credits (10.5 contact hours)
Components: Lecture

MAT 1602(0.9) Course ID: 016545
Functions
Prepares students to enroll in a calculus sequence. Includes operations on polynomial and rational functions, combinations of functions, complex numbers, and the difference quotient. Pre-requisite: MAT1601. Lecture: 0.9 (13.5 contact hours)
Components: Lecture

MAT 1603(0.9) Course ID: 016546
Exponent and Log Functions
Prepares students to enroll in a calculus sequence. Includes the properties of inverse functions, specifically exponential and logarithmic functions. Prerequisite: MAT1602. Lecture: 0.9 (13.5 contact hours)
Components: Lecture

MAT 1604(0.9) Course ID: 016547
Trigonometric Functions
Prepares students to enroll in a calculus sequence. Includes an introduction to trigonometric functions through the unit circle and through the right triangle. Pre-requisite: MAT 1603. Lecture: 0.9 credits (13.5 contact hours)
Components: Lecture

MAT 1605(0.9) Course ID: 016548
Applications of Trigonometry
Prepares students to enroll in a calculus sequence. Includes applications of trigonometry including proving identities, solving equations, graphing, solving triangles, and using polar coordinates. Pre-requisite: MAT 1604. Lecture: 0.9 (13.5 contact hours)
Components: Lecture

MAT 1606(0.7) Course ID: 016549
Conic Sections
Prepares students to enroll in a calculus sequence. Includes conic sections and solving systems of nonlinear equations. Pre-requisite: MAT 1605. Lecture: 0.7 credits (10.5 contact hours)
Components: Lecture

MAT 1701(0.6) Course ID: 016157
Limits
Approximate limits graphically and numerically; evaluate limits analytically; list the conditions for the continuity of a function at a point; determine if a function is continuous or discontinuous at a point; determine the intervals of continuity of a function; and evaluate infinite limits and limits at infinity. Pre-requisite: Successful completion of MAT 150 or Math ACT 27 or above. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

MAT 1702(0.8) Course ID: 016158
Differentiation
Define the derivative of a function; evaluate the derivative of a function using the definition; evaluate the derivative of a function using differentiation rules for algebraic functions and the product, quotient, and chain rules; use the derivative of a function to find the equation of a tangent line; perform implicit differentiation; define the differential; and use differentials to approximate function values. Pre-requisite: MAT 1701. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

MAT 1703(0.6) Course ID: 016159
Differentiation Applications
Determine critical points; determine intervals on which a function is increasing or decreasing; identify relative extrema; identify inflection points and intervals on which a function is concave up or concave down. Solve application problems involving relative rates and optimization for biological, social, or physical sciences and business. Determine whether a function is differentiable at a point. Find the derivative of functions including polynomial, rational, root, exponential, and logarithmic functions. Pre-requisites: MAT 1702. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

MAT 1704(0.5) Course ID: 016160
Integration
Discuss the fundamental theorem of calculus. Find the average value of a function. Find indefinite and definite integrals of a function using integration rules for algebraic functions. Find definite and indefinite integrals using substitution. Pre-requisite: MAT 1703. Lecture: 0.5 credits (7.5 contact hours)
Components: Lecture

MAT 1705(0.5) Course ID: 016161
Applications of Integration
Use definite integrals of find the area under a curve and between two curves. Find the integral of functions using polynomial, rational, root, exponential, and logarithmic functions. Solve application problems using integrals for biological, social, and physical sciences or business. Pre-requisite: MAT 1704. Lecture: 0.5 credits (7.5 contact hours)
Components: Lecture

MAT 1751(1) Course ID: 016550
Limits
Examines limits in one-variable calculus. Pre-requisite: One of the following: 1) College Algebra and Trigonometry, or equivalent, with grades of "C" or higher; 2) Math ACT 27 or above; or 3) Placement exam recommendation; or 4) Consent of instructor. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

MAT 1752(1) Course ID: 016552
Integration
Examines integration of algebraic and trigonometric functions with applications. Pre-requisite: MAT 1752. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

MAT 1754(1) Course ID: 016558
Integration
Examines integration of algebraic and trigonometric functions with applications in one-variable calculus. Pre-requisite: MAT 1753. Lecture: 1.0 credit (15 contact hours)
Components: Lecture
Course Descriptions

MAT 1755(1) Course ID: 016559
Transcendental Functions
Examines differentiation and integration of exponential, logarithmic, hyperbolic, and inverse trigonometric functions with applications in one-variable calculus. Pre-requisite: MAT 1754. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

MAT 1851(1.2) Course ID: 016560
Applications of Integration
Examines applications of integration including volumes of revolution, arc length, center of mass, and work. Pre-requisite: Calculus I, or equivalent, with grade of "C" or higher, or Consent of instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture

MAT 1852(1.3) Course ID: 016561
Advanced Integration Methods
Examines advanced integration techniques in one-variable calculus. Pre-requisite: Calculus I, or equivalent, with grade of "C" or higher, or Consent of instructor. Lecture: 1.3 hours (19.5 contact hours)
Components: Lecture

MAT 1853(1.3) Course ID: 016562
Sequences and Infinite Series
Examines sequences and infinite series. Pre-requisite: Calculus I, or equivalent, with grade of "C" or higher, or Consent of instructor. Lecture: 1.3 credits (19.5 contact hours).
Components: Lecture

MAT 2052(0.6) Course ID: 016756
Rational Numbers
Includes models of fractions and decimals; operations, repeating and non-repeating decimals; relationships of fractions, decimals, percents and ratios, and applications. Pre-requisite: MAT 2051. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

MAT 2061(0.75) Course ID: 016760
Geometry
Includes geometric visualization skills and representations of two- and three-dimensional shapes; two-dimensional symmetries; basic fundamental geometric objects, angles, plane isometries, congruence, similarity and proportional reasoning; and software to explore shapes. Pre-requisite: MAT 146 or MAT 150 or equivalent, with a minimum grade of "C". Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

MAT 2062(0.75) Course ID: 016761
Measurement
Includes identifying and comparing standard and non-standard systems of units; appropriateness and estimation of units, measurement; length, area, volume, and surface area and their relationships, and calculation formulas; composite regular and non-regular shapes. Pre-requisite: MAT 2061 - Geometry. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

MAT 2063(0.75) Course ID: 016762
Data and Statistics
Includes describing and understanding data, dispersion and measures of central tendency; forms of graphical representations, communication and comparison; communicating conclusions through summary statistics; and recognizing ways that statistics and graphic displays can be misleading. Pre-requisite: MAT 2062Measurement. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

MBS 100(2) Course ID: 001673
Introduction to the Health Care Field
This course is designed to acquaint/teach the student with legal issues and ethical concerns as they apply to the patients' medical records. "Student must maintain a 2.0 GPA in A & P to continue in the program
Components: Lecture
Attributes: Technical

MBS 110(6) Course ID: 001676
Medical Insurance and Claims Processing
Provides an in-depth knowledge of the various insurance programs, including rules, regulations and guidelines, and follow-up for Medicare, Medicaid, Commercial insurance, and managed care (HMO), and complete insurance forms manually for reimbursement. Lecture: 6 credits (90 contact hours). Prerequisite: ((AHS 109 or BIO 130 or BIO 137 and BIO 139) and (AHS 115 or CLA 131 or OST 103) and Computer Literacy and MBS 100(1) with a grade of "C" or better) or consent. Corequisite: MBS 120.
Components: Lecture
Attributes: Technical

MBS 120(8) Course ID: 001678
Coding for Reimbursement
Prepares the student to code for optimum reimbursement using the ICD, CPT, and HCPCS codes for patient diagnoses and procedures. Prerequisite: (AHS 109 or BIO 130 or BIO 137 and BIO 139) and (AHS 115 or CLA 131 or OST 103) and Computer Literacy and MBS 100 with a grade of "C" or better) or consent. Corequisite: MBS 110.
Components: Lecture
Attributes: Technical

MBS 199(1 - 8) Course ID: 001680
Internship
Applies practical knowledge to the outpatient healthcare setting. The student will be assigned a healthcare preceptor at the affiliate site. This course may be taken for 1-8 credits. Prerequisites: (MBS 110 and MBS 120) or Consent
Components: Practicum
Attributes: Technical

ME 205(3) Course ID: 004291
Introduction to Computer Graphics
Combines freehand sketching techniques, both orthographic and pictorial, and the use of a solid modeling program to describe and define mechanical objects using current industrial standards. An introduction to basic dimensioning and tolerancing techniques is included.
Components: Laboratory, Lecture
Attributes: Technical

ME 220(3) Course ID: 000837
Engineering Thermodynamics I
Fundamental principles of thermodynamics. Prerequisite: PHY 231. Prerequisite or concurrent: MA 214.
Components: Lecture
Attributes: Technical

MES 110(4) Course ID: 005485
Mechatronics Systems Electrical Components
Introduces the systems approach to the operation of electrical components and the relationship to voltage, current, resistance, and power in industrial systems. Provides an overview of alternating and direct current fundamentals. Pre-requisite: (COMPASS Scores of Pre-Alg-31; Reading-70; English-39) or (ACT Score of 19 in Math and Reading and 18 in English). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture
Attributes: Technical

MES 120(4) Course ID: 005486
Mechatronics Systems Mechanical Components
Introduces the systems approach to the operation of mechanical components and the relationship of their application in industrial systems. Provides an overview of rotating machinery fundamentals. Pre-requisite: (COMPASS Scores of Pre-Alg-31; Reading-70; English-39) or (ACT Score of 19 in Math and Reading and 18 in English). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture
Attributes: Technical

MES 130(4) Course ID: 005487
Mechatronics Systems Hydraulic / Pneumatic Components
Introduces the systems approach to the operation of hydraulic/pneumatic components and the relationship of their application in industrial systems. Provides an overview of digital fundamentals. Pre-requisite: (COMPASS Scores of Pre-Alg-31; Reading-70; English-39) or (ACT Score of 19 in Math and Reading and 18 in English)
Components: Lecture
Attributes: Technical

MFG 102(4 - 6) Course ID: 015644
Certified Production Technician
Provides industry-led training, assessment, and certification system focused on the industry-wide core skills and knowledge needed by the nation's production workers. Includes the nationwide Manufacturing Skill Standards Council (MSSC) System, based upon federally-endorsed standards. Offers both entry-level and incumbent workers the opportunity to demonstrate that they have mastered the skills increasingly needed in the high-growth, technology-intensive jobs of the 21st century. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 - 3.0 credits (30 - 90 contact hours)
Components: Laboratory, Lecture
Attributes: Technical

MFG 125(3) Course ID: 006669
Fundamentals of Mechatronics A
Introduces the student to the basics of Mechatronic systems and the operation of electrical, mechanical, pneumatics/hydraulic, and Programmable Logic Control components in an advanced manufacturing system. Presents a detailed explanation of the relationships of voltage, current, resistance, power, the operation of mechanical, pneumatics/hydraulic components, and programming fundamentals in industrial systems. Includes an overview of the fundamentals of alternating and direct current, rotating machinery, digital devices, and programming. (Credit may not be earned for this course if the student has earned credit for MFG 135). Pre-requisite: ENGT110 and at least five other hours of approved technical electives (see Manufacturing Engineering Technology technical elective list) or consent of instructor.
Components: Lecture/Lab: 3 credit hours (60 contact hours)
Attributes: Technical

MFG 130(3) Course ID: 006670
Fundamentals of Mechatronics B
Combines previously learned basic operational and analytical skills as related to a Mechatronics/Advanced Manufacturing system. Applies concepts to a complete advanced manufacturing system wherein various subsystems are collectively used to build a more complex manufacturing system. Teaches the students to troubleshoot a multitude of problems involved in electrical, mechanical, and hydraulic/pneumatic systems. (Credit may not be earned for this course if the student has earned credit for MFG 135). Pre-requisite: MFG125 Fundamentals of Mechatronics A or consent of instructor.
Components: Lecture/Lab: 3 credit hours (60 contact hours)
Attributes: Technical
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
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</thead>
<tbody>
<tr>
<td>MGT 120(3)</td>
<td>004897</td>
<td>Personal Finance</td>
<td>3</td>
<td>45</td>
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<td>Information needed to make intelligent choices and take effective action in the management of personal resources is provided. Topics include financial planning, buying, borrowing, saving, budgeting, investing, insurance, and taxes. Lecture: 3 credits (45 contact hours). Components: Attributes: Technical</td>
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<tr>
<td>MGT 160(3)</td>
<td>004899</td>
<td>Introduction to Business</td>
<td>3</td>
<td>45</td>
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<td>Business careers, terminology, and the interrelationships and complexities of business are introduced and examined in this survey course. Lecture: 3 credits (45 contact hours). Components: Attributes: Technical</td>
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<td>Small Business Management</td>
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<td>Students are introduced to the facets of establishing, operating, and owning a small business. Topics include legal forms of organization, finance, accounting, insurance, government regulations and assistance, economics, marketing, and management principles. Prerequisite: MGT 160 or B&amp;E 100, or consent of instructor. Lecture: 3 credits (45 contact hours). Components: Attributes: Technical</td>
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<td>Business Ethics and Self Management</td>
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<td>Emphasizes the need for managers to be self-directed to make ethical decisions. Explores moral principles, community standards and the ethics of decision making at personal and professional levels. Lecture: 3 credits (45 contact hours). Components: Attributes: Technical</td>
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<td>Operations Management</td>
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<td>Concepts and methods for economical planning and control of activities required for transforming a set of inputs into specified goods or services are introduced. Emphasis is given to forecasting, decision analysis, cost analysis, design of production systems, production/marketing relationships, operations planning and control, and the importance of global competitiveness. Prerequisite: MGT 283 or consent of instructor. Lecture: 3 credits (45 contact hours). Components: Attributes: Technical</td>
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<td>Project Management</td>
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<td>Provides tools used in project management to accomplish the goals of society's varied organizations. Provides insight into human behavior, knowledge of organizational issues, and skill with quantitative methods to allow successful project management. Pre-requisite: MGT283. Lecture: 3.0 credits (45 contact hours). Components: Attributes: Technical</td>
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<td></td>
<td>Introduction to Business Law</td>
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<td>The student is introduced to the state and federal court systems, tort and criminal law, law of contracts, partnerships, sale of goods, government regulations, bailments and negotiable instruments. Lecture: 3 credits (45 contact hours). Components: Attributes: Technical</td>
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<tr>
<td>MIL 101(2)</td>
<td>015681</td>
<td>Military Mountaineering and Leadership</td>
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<td>This course is designed to be an introductory course to military science with emphasis on the following: Goal-setting, Physical Fitness Planning, Stress and Time Management, Mountaineering (which includes terminology, tools, and skills, rope management, knots, and rappelling/belaying techniques), and Basic Marksmanship. Additionally, cadets will receive an overview of Army Officereship and the leadership skills necessary to succeed in any chosen career. Special attention will be given to the opportunities afforded an Army officer. Satisfactory completion of this course may be used to fulfill a General Education Category F requirement at Western Kentucky University (WKU). Lecture: 2.0 credits (2 contact hours). Components: Attributes: University Course (Western Kentucky University)</td>
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<tr>
<td>MIL 175(2)</td>
<td>006672</td>
<td>Lean Operations</td>
<td>0.5</td>
<td>7.5</td>
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<td>Uses a lean simulation to introduce students to lean practices. Lecture: 0.5 credits (7.5 contact hours). Components: Lecture</td>
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<tr>
<td>MIL 256(4)</td>
<td>000713</td>
<td>Total Productive Maintenance</td>
<td>1.0</td>
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<td>Introduces Total Productive Maintenance concepts and practices using industry examples. Lecture: 1.0 credit hour (15 contact hours). Components: Lecture</td>
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<tr>
<td>MIL 258(3)</td>
<td>006642</td>
<td>Lean Principles</td>
<td>0.5</td>
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<td>Introduces students to lean principles and concepts using examples from Toyota and other lean practitioners. Lecture: 1.0 credit hour (15 contact hours). Components: Lecture</td>
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<tr>
<td>MIL 265(4)</td>
<td>000713</td>
<td>Robotics and Industrial Automation</td>
<td>1.0</td>
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<td>A study of principles and techniques used in automated industrial systems are studied. Emphasis is placed on programming, applications, and interfacing of automated machinery to manufacturing workcells. Lecture: 3 hours; Laboratory: 2 hours. Prerequisite: ET 256 or consent of instructor. Components: Laboratory, Lecture</td>
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<tr>
<td>MIL 267(3)</td>
<td>004913</td>
<td>Total Contactable Maintenance</td>
<td>0.5</td>
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<td>Emphasizes the need for managers to be self-directed to make ethical decisions. Explores moral principles, community standards and the ethics of decision making at personal and professional levels. Lecture: 3 credits (45 contact hours). Components: Attributes: Technical</td>
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<td>MIL 283(3)</td>
<td>004916</td>
<td>Principles of Management</td>
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<td>The functional framework of planning, organizing, leading, and controlling is utilized to introduce the management process. The interdisciplinary nature of management theory is introduced also, with the inclusion of relevant aspects of human behavior and rational decision making. Pre-requisite: BAS 160/MGT 160, B&amp;E 100 or consent of instructor. Lecture: 3 credits (45 contact hours). Components: Attributes: Technical</td>
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<tr>
<td>MIL 315(2)</td>
<td>006673</td>
<td>Total Productive Maintenance</td>
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<td>Provides tools used in project management to accomplish the goals of society's varied organizations. Provides insight into human behavior, knowledge of organizational issues, and skill with quantitative methods to allow successful project management. Pre-requisite: MGT283. Lecture: 3.0 credits (45 contact hours). Components: Attributes: Technical</td>
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<tr>
<td>MIL 350(2)</td>
<td>006674</td>
<td>Military Mountaineering and Leadership</td>
<td>1.0</td>
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<td>The student is introduced to the state and federal court systems, tort and criminal law, law of contracts, partnerships, sale of goods, government regulations, bailments and negotiable instruments. Lecture: 3 credits (45 contact hours). Components: Attributes: Technical</td>
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<tr>
<td>MIL 351(2)</td>
<td>006675</td>
<td>Military Mountaineering and Leadership</td>
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<tr>
<td>MIL 352(2)</td>
<td>006676</td>
<td>Military Mountaineering and Leadership</td>
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<tr>
<td>MIL 353(2)</td>
<td>006677</td>
<td>Military Mountaineering and Leadership</td>
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<td>Provides tools used in project management to accomplish the goals of society's varied organizations. Provides insight into human behavior, knowledge of organizational issues, and skill with quantitative methods to allow successful project management. Pre-requisite: MGT283. Lecture: 3.0 credits (45 contact hours). Components: Attributes: Technical</td>
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MIT Medical Information Technology

MIT 103(3) Course ID: 004510
Medical Office Terminology
Introduces students to medical terminology including familiar elements, body systems, operative procedures, pharmacology, and methods of researching medical information including, but not limited to, names and descriptions of diseases and drugs. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MIT 104(3) Course ID: 004103
Medical Insurance
Introduces students to the basics of medical insurance including: insurance terminology, various coding systems, government programs, and general insurance procedures. Pre-requisite Or Co-requisite: MIT 103 or AHS 115 or CLA 131. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 106(3) Course ID: 004104
Introduction to Medical Transcription
Provides experience in transcription of basic medical dictation: incorporating English usage, transcription skills, medical knowledge, and proofreading and editing skills while meeting progressively demanding accuracy and productivity standards. Prerequisite: Computer Literacy course and OST 110 and (ENG 101 or OST 108) and (AHS 115 or CLA 131 or MIT 103). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 204(3) Course ID: 004105
Medical Coding
Develops medical coding skills using government mandated coding systems as applied. Includes other reimbursement methods and medical insurance concepts. Prerequisite Or Co-requisite: MIT 104, BIO 135 or Equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 205(3) Course ID: 004509
Advanced Medical Coding
Applies advanced coding rules for various coding systems and applies the rules to code patient services for a variety of payment systems emphasizing payment fraud and/or abuse. Prerequisite: MIT 204 or MBS 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 206(3) Course ID: 004106
Medical Transcription
Applies advanced concepts of medical transcription and provides advanced practice. Prerequisite: MIT 106 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 208(3) Course ID: 004507
Instructor Consent Required
Inpatient Coding
Designed for students who have completed an entry-level coding course and are ready to move into more advanced hospital coding. Emphasizes inpatient coding using current government mandated coding systems. Prerequisite: MIT 204. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 211(1) Course ID: 004506
Medications
Introduces the student to Pharmacology: the most commonly used drugs, their names, and classification; and drug reference books while stressing spelling. Prerequisite: (MIT 103 or AHS 115 or CLA 131) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

MIT 217(3) Course ID: 004107
Medical Office Procedures
Provides a working knowledge of the duties required in a medical office. Includes professional and career responsibilities, interpersonal communication, administrative responsibilities, and financial administration. Pre-requisite Or Co-requisite: OST 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 219(3) Course ID: 006970
Coding Exam Preparation
Designed to prepare medical coding students to take a certifying exam to become a professional outpatient coder as offered by AAPC or PHIA. Includes outpatient coding cases and review of medical terminology, basic anatomy, basic pathophysiology, reimbursement issues, and advanced coding guidelines for CPT, ICD-9-CM, and HCPCS coding systems. Pre-requisite: (MIT 204 and MIT 205) or MBS 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 224(3) Course ID: 016402
Medical Practice Management
Introduces students to medical practice management from roles of staff members in healthcare to skills and responsibilities of the manager in relation to compliance and regulatory agencies. It identifies the requirements of managing the revenue cycle, compliance regulations, human resources, health information, and the general business processes. Prerequisite Or Co-requisite: MI 230, MIT 217, MIT 104. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 227(3) Course ID: 004108
Medical Office Software
Provides a working knowledge of computer management software in a simulated medical office setting. Prerequisite: (MIT 103 or AHS 115 or CLA 131) and Computer Literacy. Corequisite: MIT 217. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 229(3) Course ID: 006340
Electronic Medical Records
Provides a working knowledge of computerized medical records software used in a variety of healthcare facilities. Pre-requisite: MIT 217. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 230(3) Course ID: 004109
Medical Information Management
Components: Lecture
Attributes: Technical

MIT 295(3) Course ID: 006971
Medical Information Technology Capstone
Enhances the student's transition from class to work by providing unpaid learning activities related to the MIT field. Integrates work experience with academic instruction. Includes an internship, field experiences, and/or simulated work experiences in which the student applies previously or concurrently learned concepts to practical work situations within the MIT field. Pre-requisite: Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours). Practicum: 2.0 credits (120 contact hours).
Components: Lecture, Practicum
Attributes: Technical

MIT 296(1 - 3) Course ID: 007326
Medical Information Technology Internship
Enhances transition from school to work by providing non-paid work experience which provides the opportunity to apply acquired occupational skills in a realistic setting. Requires approval of the MIT Program Coordinator. Prerequisite: Consent of Instructor. Pre-requisite: Consent of Program Coordinator. Practicum: 1.0 - 3.0 credits (45-135 contact hours).
Components: Practicum
Attributes: Technical

MIT 103(1) Course ID: 016393
Intro to Med Terms & Systems
Introduces medical terminology including root words, prefixes and suffixes as well as general medical terms. Introduces medical terms related to the skeletal, muscular, blood, lymph, cardiovascular and respiratory systems. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 103(1) Course ID: 016394
Intermediate Body Systems
Introduces medical terms related to the blood, lymph, cardiovascular, respiratory, digestive and urinary systems as well as skin. Pre-requisite: MIT 1031. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 103(1) Course ID: 016395
Diagnostics and Pharmacology
Introduces the nervous, endocrine, reproductive systems as well as ears and eyes Introduces medical terms related to pharmacology and diagnostic and imaging procedures. Pre-requisite: MIT 1032. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 104(1) Course ID: 016397
Medical Coding Overview
Introduces various coding systems. Pre-requisite: MIT 1041. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 104(1) Course ID: 016398
Intro to Medical Forms
Introduces general insurance procedures and forms. Pre-requisite: MIT 1042. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 204(1) Course ID: 016399
Coding Systems
Develops medical coding skills using government mandated coding systems. Includes review of health records, selection of codes, interaction with physicians, and more. Pre-requisite: MIT 104 or Consent of instructor. Co-requisite: BIO 135 or Equivalent; MIT 104. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 204(1) Course ID: 016400
Inpatient Coding
Develops medical coding skills for inpatient coding systems. Includes reimbursement methodologies and advanced coding practices for inpatient coding. Pre-requisite: MIT 2041 or Consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 204(1) Course ID: 016401
Outpatient Coding
Develops medical coding skills for outpatient coding systems. Includes reimbursement methodologies and advanced coding practices for outpatient coding. Pre-requisite: MIT 2042 or Consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
MIT 2081(1) Course ID: 016843
Diagnosis Coding
Examines diagnosis coding using current government mandated coding systems. Pre-requisite: MIT 204 or Consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2082(1) Course ID: 016852
Procedure Coding
Examines procedure coding using current government mandated coding systems. Pre-requisite: MIT 2081 or Consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2083(1) Course ID: 016853
Coding Practice and Case Studies
Reinforces coding through practice and case studies in the inpatient hospital setting. Pre-requisite: MIT 2082 or Consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2171(1) Course ID: 016847
Careers in the Medical Office
Analyzes professional and career opportunities in the medical office. Prepare for an interview and create employment communications. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2172(1) Course ID: 016848
Records Management
Provides knowledge of records management and medical abbreviations and terminology in the medical office. Pre-requisite: MIT 2171. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2173(1) Course ID: 016849
Admin and Financial Management
Provides knowledge of administrative responsibilities and financial administration in the medical office. Pre-requisite: MIT 2172. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2241(1) Course ID: 016875
Managing the Medical Office
Emphasizes the healthcare setting, medical office communications, and human resource management. Pre-requisite OR Co-requisite: MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2242(1) Course ID: 016876
Managing the Medical Record
Focuses on the correct use, care, regulations and rules concerning medical records. Pre-requisite OR Co-requisite: MIT 2241, MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2243(1) Course ID: 016877
Medical Office Revenue Cycle
Emphasizes accounting and payroll as well as marketing of the medical office. Pre-requisite OR Co-requisite: MIT 2242, MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2281(1) Course ID: 016403
Intro to E-Health Records
Provides an introduction to electronic health records and gives students a working knowledge of industry-standard electronic medical records software program emphasizing ethical and regulatory issues and methods. Pre-requisite: MIT 227 or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2282(1) Course ID: 016404
Clinical Office Administration
Provides a working knowledge of computerized medical records software to simulate tasks including to create/ maintain patient records and maintain office scheduling. Pre-requisite: 2281 or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2283(1) Course ID: 016405
Clinical Tools and Procedures
Provides a working knowledge of computerized medical records software to complete scenario based projects to use templates and create/analyze reports. Emphasizes test and diagnosis codes. Pre-requisite: 2282 or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2301(1) Course ID: 016406
Intro to Medical Info Mgmt
Identify rules and regulations of medical filing systems and procedures. Pre-requisite: Digital Literacy. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2302(1) Course ID: 016407
Applied Medical Info Mgmt
Apply rules and regulations of medical filing systems and procedures. Emphasizes management of both hard copy and magnetic media using alphabetic, numeric, chronologic, and color-coded filing systems. Pre-requisite: MIT 2301. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2303(1) Course ID: 016409
Records Mgmt/Legal Issues
Master file retention and archiving. Discusses legal and ethical aspects of medical records. Reinforces rules and regulations of medical filing systems and procedures. Pre-requisite: MIT 2302. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2591(1) Course ID: 004920
Retail Management
Retail structure, merchandising, promotions, store control, and decision making are examined in this course. Fundamental principles of store organization, consumer behavior, and customer service are addressed. Retailing trends, opportunities, and problems are included also. Lecture: 3 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MIT 292(3) Course ID: 004919
Advertising and Promotion
The principles of advertising will be introduced to the student. Topics will include economic and social aspects; advertising research; media strategy; consumer behavior; and legal issues in advertising. Pre-requisite: BAS 282/ MKT 282. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 293(3) Course ID: 004921
Buying and Merchandising
Decision making strategies are used to solve problems inherent in merchandise selection. Analysis of financial statements and their relationship to buying situations are included, along with cost control and the establishment of sales goals and objectives. Mark-ups, reduction planning, unit cost control, and other computations are emphasized. Pre-requisite: BAS 291/MKT 291. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MLT Medical Laboratory Technology

MLT 101(3) Course ID: 004073
Introduction to the Clinical Laboratory
Includes an orientation to the laboratory and management structure, professional organizations, professional ethics, communication, and record keeping. Covers medical terminology and abbreviations, quality assurance procedures, laboratory safety rules and procedures, specimen processing, laboratory automation, and basic immunology. Introduces the student to the various laboratory departments. Prerequisite: Admission into the MLT program or permission of the MLT Program Director or MLT Clinical Coordinator. Lecture/Lab: 3.0 credits (75 contact hours)
Components: Laboratory, Lecture
Attributes: Technical
Course Descriptions

MLT 112(2) Course ID: 004177
Urinealysis
Focuses on methodology and clinical significance of urine chemical analysis, interferences with chemical analysis procedures, screening methods used in diagnostic determinations, collection and handling of specimens, and the characteristics and clinical significance of formed elements of the urine. Includes the physiological function of the kidneys and diseases which affect the urinary system. Pre-requisite: Admission into the MLT program or permission of the MLT program director/coordinator. Pre-requisite Or Co-requisite: MLT 101 or PHB 170. If taken as a pre-requisite, a minimum grade of “C” Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture Attributes: Technical

MLT 115(2) Course ID: 004178
Serology
Introduction to diagnostic procedures and clinical significance of specific areas of the laboratory. Includes practical application in Hematology, Clinical Microbiology, Immunohematology, Urinalysis, Serology, and Clinical Chemistry. Pre-requisite: Admission into the MLT program or permission of the MLT program director/coordinator. Pre-requisite OR Co-requisite: MLT 101. If taken as a pre-requisite, a minimum grade of “C”. Lecture/Lab: 3.0 credits (105 contact hours)
Components: Lecture Attributes: Technical

MLT 119(3) Course ID: 004179
Applied Laboratory
Prepares the student for clinical rotation into the major areas of the laboratory. Includes practical application in Hematology, Clinical Microbiology, Immunohematology, Urinalysis, Serology, and Clinical Chemistry. Pre-requisite: Admission into the MLT program or permission of the MLT program director/coordinator. Pre-requisite OR Co-requisite: MLT 101. If taken as a pre-requisite, a minimum grade of “C”. Lecture/Lab: 3.0 credits (105 contact hours)
Components: Lecture Attributes: Course Also Offered in Modules, Technical

MLT 205(3) Course ID: 004181
Clinical Microbiology I
Introduces the application of microbiological principles to clinical laboratory practice. Includes safety and use of standard precautions, staining, selection and use of media, specimen processing, cultivation and identification of bacteria, and antimicrobial susceptibility testing. Prerequisite: [MLT 101 and MLT 119] or BIO 225 with a grade of “C” or greater; admission into the MLT program; permission by MLT program director/coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours)
Components: Laboratory, Lecture Attributes: Technical

MLT 206(2) Course ID: 004182
Clinical Microbiology II
Continues with the application of microbiological principles to clinical laboratory practice. Includes mycology, parasitology, virology, and mycobacteriology. Prerequisite: Admitted into the MLT program; permission of the MLT program director/coordinator. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture Attributes: Technical

MLT 207(2) Course ID: 000282
Introduction to Clinical Diagnostic Microbiology
Reviews the basic concepts of bacterial cell structure, physiology, nomenclature and classification. Emphasizes safety in the microbiology department of the laboratory. Introduces species processing as it relates to the microbiology department in the clinical laboratory. Covers the practical importance of identifying microorganisms through morphology on culture media, appearance on gram stain, and biochemical reactions. Pre-requisite: Admission into the MLT program OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 2.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

MLT 208(3) Course ID: 006399
Clinical Diagnostic Microbiology I
Discusses theoretical concepts, disease processes, identification schemas, diagnostic characteristics, biochemical reactions, susceptibility testing, and isolation techniques of gram positive and gram negative microorganisms associated with infections diagnosed in the clinical laboratory microbiology department. Pre-requisite: MLT 207 with a grade of “C” or better OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 3.0 credits (75 contact hours)
Components: Lecture Attributes: Technical

MLT 209(2) Course ID: 006400
Clinical Diagnostic Microbiology II
Exposes the student to a study of anaerobes, spore forming gram positive bacilli, virology, mycobacterium, mycoplasma, spirochetes, mycology and parasitology with focus on the clinical diseases and diagnostic procedures in the microbiology department of the clinical laboratory. Pre-requisite: MLT 208 with a grade of “C” or better OR permission of the MLT Program Director/MLT Clinical Coordinator Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MLT 215(4) Course ID: 004183
Hematology I
Covers hemopoiesis and classic methodologies of standard hematological procedures. Includes the principles of various hematological methodology analyzers, histograms and scattergrams. Provides students with the opportunity to perform basic hematology and coagulation procedures, correlate laboratory data to aid in diagnosis, and describe methodology of procedures and their clinical significance. Includes mechanisms of coagulation, routine coagulation testing; disease states associated with coagulation abnormalities, platelet evaluation, fibrinolysis and anticoagulant therapy. Pre-requisite: MLT 101 with a grade of “C” or greater OR admission into the MLT program OR permission by MLT program coordinator. Lecture/Lab: 4 credits (105 contact hours)
Components: Lecture Attributes: Technical

MLT 216(3) Course ID: 004184
Hematology II
Continues the study of hematology. Includes a study of anemias, leukemias, lymphomas, miscellaneous abnormal white blood cell disorders to assess hematologic changes and correlate laboratory data to diagnosis. Covers body fluids and other special hematologic procedures. Prerequisite: MLT 215 with a grade of “C” or greater; permission by MLT program director/coordinator. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture Attributes: Technical

MLT 217(2) Course ID: 006401
Fundamentals of Hematology
Presents classic methodologies related to standard hematology procedures. Includes collection and processing of proper specimens, performance of quality control, and analysis of fundamental hematological parameters to aid in diagnosis. Pre-requisite: Admission into the MLT program OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 3.0 credits (60 contact hours)
Components: Lecture Attributes: Technical

MLT 218(4) Course ID: 006402
Clinical Hematology
Continues the study of hematology. Includes hemostasis, anemias, leukemias, lymphomas, miscellaneous abnormal white blood cell disorders, body fluid analysis and other special hematologic procedures. Prerequisite: A grade of “C” or better in MLT 217 OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 4.0 credits (75 contact hours)
Components: Lecture Attributes: Technical

MLT 225(2) Course ID: 004185
Immunohematology I
Includes the principles of immunochemistry in relation to blood banking, blood group systems, donor processing and screening, antibody screening, and blood components. Prerequisite: MLT 101 with a grade of “C” or greater; admission into the MLT program; permission by MLT program director/coordinator. Lecture: 1.0 credit (15 contact hours). Laboratory: 1.0 credit (45 contact hours)
Components: Laboratory, Lecture Attributes: Technical

MLT 226(2) Course ID: 004186
Immunohematology II
Includes antibody screening and panel interpretation, compatibility testing, viral markers and related disease states, hemolytic disease, and HLA markers. Pre-requisite: MLT 225 OR Permission by MLT Program Director/Coordinator. Lecture/Lab: 2.0 credits (45 contact hours)
Components: Lecture Attributes: Technical

MLT 227(4) Course ID: 004570
Immunohematology
Covers principles and practices in blood banking, including topics such as blood group systems, blood components, antibody identification and compatibility testing. Prerequisite: MLT 101 with a grade of “C” or greater; permission by MLT program director/coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (75 contact hours)
Components: Laboratory, Lecture Attributes: Technical

MLT 233(3) Course ID: 004187
Clinical Chemistry I
Provides a review of basic inorganic chemistry and organic chemistry principles and types of instrumentation commonly used in a medical laboratory. Covers carbohydrates, non-protein nitrogen compounds, proteins, lipids and enzymes as related to clinical diagnosis. Introduces quality control procedures, including statistical calculations for graph preparation and interpretation of gathered data. Prerequisite: (MLT 101 with a grade of “C” or greater and admission into the MLT program) OR MLT Program Coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture Attributes: Technical

MLT 234(2) Course ID: 004188
Clinical Chemistry II
Presents the physiology and testing of liver function, hormones, electrolytes and acid-base metabolism. Includes toxicology and therapeutic drug monitoring, tumor markers, and special chemicals. Prerequisite: MLT 101 with a grade of “C” or greater; permission by MLT program director/coordinator. Pre-requisite OR Co-requisite: MLT 233. If taken as a pre-requisite, a minimum grade of C. Lecture: 1.0 credit (15 contact hours). Laboratory: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture Attributes: Technical

MLT 247(3) Course ID: 006403
Introduction to Clinical Chemistry
Introduces the student to a variety of automated instrumentation and methodologies of selected chemistry test procedures. Exposes student to the basic principles as well as the techniques used in clinical chemistry to assess carbohydrates, non-protein nitrogen compounds, amino acids and proteins, lipids and lipoproteins, and enzymes as related to clinical diagnosis. Acquaints the student with basic laboratory mathematics and quality assurance procedures utilized in the clinical laboratory department. Prerequisite: Admission into MLT program OR permission of the MLT Clinical Coordinator/MLT Program Director. Lecture/Lab: 3.0 credits (60 contact hours)
Components: Lecture Attributes: Technical
MLT 248(3)  Course ID: 006404
Advanced Clinical Chemistry
Continues the study of clinical chemistry. Presents a study of lipids and lipoproteins, acid/base balance, electrolytes, endocrine system, liver, gastrointestinal and pancreatic function, therapeutic drug monitoring, and toxicology. Prerequisite: MLT 247 with a grade of "C" or greater. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MLT 275(1)  Course ID: 006831
Clinical Experience
Familiarizes the student with the clinical laboratory environment as it relates to phlebotomy and front office responsibilities. Includes blood collection procedures, handling and answering internal phone calls, communication with and registration of patients, insurance filing and data entry. Prerequisite: Admission into the MLT program or permission of the MLT program director or coordinator. Clinical: 1.0 credit (30 contact hours).
Components: Clinical

MLT 278(4 - 5)  Course ID: 004253
Practicum I
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT Program Director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: (MLT 101 with a grade of "C" or better) OR Admission into MLT program; Or permission by MLT program director/coordinator.
Components: Practicum
Attributes: Course Also Offered in Modules, Technical

MLT 279(4 - 5)  Course ID: 004254
Practicum II
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT Program Director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: (MLT 101 with a grade of "C" or better OR Admission into MLT program OR permission by MLT Program Director/Coordinator. Pracitcum: 4-5 credits (240-300 contact hours).
Components: Practicum
Attributes: Course Also Offered in Modules, Technical

MLT 2781(2 - 2.5)  Course ID: 005340
Practicum I Part 1
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT program director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Prerequisite: MLT 101 with a grade of "C" or greater in admission into the program. Practicum: 2 - 2.5 credits (120-150 contact hours).
Components: Practicum

MLT 2782(2 - 2.5)  Course ID: 005341
Practicum I Part 2
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT program director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Prerequisite: MLT 2781 with a grade of "C" or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).
Components: Practicum

MLT 2791L(2 - 2.5)  Course ID: 005342
Practicum II Part 1
Develops career entry level performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Provides an opportunity for more responsibility and independence with previously learned procedures. Enhances the student's transition to the world of work by providing work experiences in a clinical setting. Utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the CLT program director. Prerequisite: MLT 101 with a grade of "C" or greater. OR Admission to the MLT program. Practicum: 2 - 2.5 credits (120-150 contact hours).
Components: Practicum

MLT 2792L(2 - 2.5)  Course ID: 005343
Practicum II Part 2
Develops career entry level performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Provides an opportunity for more responsibility and independence with previously learned procedures. Enhances the student's transition to the world of work by providing work experiences in a clinical setting. Utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the CLT program director. Prerequisite: MLT 2791 with a grade of "C" or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).
Components: Practicum

MLT 1191(1.5)  Course ID: 005338
Applied Laboratory Part 1
Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Hematology, Clinical Microbiology, and Urinalysis. Prerequisite: MLT 101 with a grade of "C" or greater and admission into the program. Lecture: 0.5 credit (7.5 contact hours). Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture

MLT 1192(1.5)  Course ID: 005339
Applied Laboratory Part 2
Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Clinical Microbiology, Immunohematology, Serology, and Clinical Chemistry. Prerequisite: MLT 1191 with a grade of "C" or greater. Lecture: 0.5 credit (7.5 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture

MNA 100(3)  Course ID: 001772
Medicaid Nurse Aide
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. Focuses on communication, infection control, safety, resident/patient rights, and basic nursing skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture/Lab: 3 credits (75 contact hours), 1:45:1 ratio.
Components: Lecture
Course Equivalents: NAA 100
Attributes: Technical

MNG 123(4)  Course ID: 000576
Mining Electricity 1 Lab
Qualifies students to take the Mine Electrical Certification Exam administered by Kentucky Office of Mine Safety and Licensing. Includes topics of basic electricity, direct current circuits, impedance, reactance, power, electrical energy, permeability, underground and surface law, state and federal regulations pertaining to underground and surface coal mining. Lecture: 4.0 credit hours (60 contact hours).
Components: Lecture
Attributes: Technical

MNG 125(1)  Course ID: 005266
Mining Electricity 1 Lab
Encompasses an elementary lab for mining technology students. Includes construction of circuits using electrical-measuring instruments in the analysis of the circuits with focus on electrical safety. Emphasizes mining electrical equipment circuits, permeability and maintenance. Co-requisite: MNG 123. Laboratory: 1.0 credits (30 contact hours).
Components: Laboratory
Attributes: Technical

MNG 150(3)  Course ID: 000587
Mining Laws
Provides the theory, intent, construction and application of state and federal regulations pertaining to underground and surface coal mining. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MNG 160(3)  Course ID: 006646
Elements of Underground Mining
Introduces underground mining methods, operations, and procedures. Includes topics of miners' rights, work environments, health and safety standards, roof control, mine ventilation, transportation, communication, compressed gas cylinders, explosives, mine gases and instruments, electrical hazards, accident prevention, and emergency procedures. Co-requisite: MNG 161. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Pilot Course, Technical

MNG 161(1)  Course ID: 006647
Elements of Underground Mining Lab
Applies the principles and policies of mining methods, operations, and procedures in a controlled laboratory environment. Focuses on the skills associated with the information taught in the paired underground mining lecture course. Co-requisite: MNG 160. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Pilot Course, Technical
MNG 170(2) Course ID: 006648
Elements of Surface Mining
Introduces study of surface mining methods, operations, and procedures. Includes topics of miners’ rights, work environments, ground control, health and safety standards, transportation, communication, compressed gas cylinders, explosives, mine gases and instruments, electrical hazards, accident prevention, and emergency procedures. Co-requisite: MNG 171. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Pilot Course, Technical

MNG 171(1) Course ID: 006649
Elements of Surface Mining Lab
Applies the principles and policies of mining methods, operations, and procedures in a controlled laboratory environment. Focuses on the skills associated with the information taught in the paired lecture course for surface mining. Co-requisite: MNG 170. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Pilot Course, Technical

MNG 180(3) Course ID: 006789
Environmental Issues in Mining
Introduces topic of how underground and surface mining operations impact the environment in a multitude of ways. Includes basic information related to geological formations in mining and structure of coal material. Relates methods to mitigate negative effects of mining. Discusses methods to repair damage to environment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MNG 185(3) Course ID: 007371
Mining Permissibility
Covers the requirements of federal and state law of mining permissibility with a focus on proper methods of checking and maintaining underground permissible equipment in a permissible condition. Includes plane flange joints, step flange joints, slip joints, threaded joints, restraining of cables, power centers, fire extinguishers, cables, and other areas of permissibility. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MNG 190(3) Course ID: 005206
Mine Emergency Technician
Applies principles and procedures to identify and treat life threatening conditions. Offers safety training needed to receive a Mine Emergency Technician certificate from Kentucky Department of Mines and Minerals after successful completion of the optional test. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MNG 286(3) Course ID: 000738
Root Control and Ventilation
Involves an in-depth study of roof and rib control, and coal mine ventilation. Includes methods of inspection and reporting potential safety hazards, reading roof control plans, processes and procedures involving mine resistance, law, and minimum standards. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MNG 299(1 - 4) Course ID: 006790
Selected Topics in Mining Technology: (Topic)
Addresses various mining technology topics, issues and trends. Includes topics that may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of four credit hours. Lecture/Lab: 1.0 - 4.0 credits (contact hours 15 - 120).
Components: Lecture
Attributes: Technical

MOR 100(6) Course ID: 001773
Medical Office Limited Radiography
Provides knowledge and lab experience necessary to meet requirements for Limited Medical Radiography licensure. Consists of patient care and management, radiographic procedures, image production and evaluation, equipment operation and maintenance. Prerequisite: AHS 109 and AHS 115 with a grade of “C” or better. Co-requisite: MOR 115. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MOR 115(3) Course ID: 001775
Medical Office Limited Radiography Clinical
Apply the principles and procedures learned to afford the student the opportunity to observe, assist, and perform diagnostic radiographic examinations. Mandated by the State Radiation Control Board, the student shall accrue a total of 360 contact hours and perform the minimum of (50) radiographic examinations in each of the following areas: Chest, Extremities, and Musculoskeletal. Pre-requisite: AHS 109 and AHS 115 with a grade of “C” or better. Co-requisite: MOR 100 Medical Office Limited Radiography. Clinical: 3.0 credits (180 contact hours).
Components: Clinical
Attributes: Technical

MOR 117(6) Course ID: 007111
Advanced Medical Office Radiography
Provides knowledge and lab experience necessary to meet requirements for Limited Medical Radiography licensure. Consists of patient care and management, radiographic procedures, image production and evaluation, equipment operation and maintenance. Prerequisite: MOR 100 and MOR 115 with a grade of “C” or better. Co-requisite: MOR 119 Advanced Medical Office Radiology Clinical. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MOR 119(3) Course ID: 007112
Advanced Medical Office Limited Radiography Clinical
Apply the principles and procedures learned in MOR 100 and MOR 115 to afford the student the opportunity to observe, assist, and perform diagnostic radiographic examinations. Mandated by the State Radiation Control Board, the student shall accrue a total of 360 contact hours and perform the minimum of (50) radiographic examinations in each of the following areas: Chest, Extremities, and Musculoskeletal. Pre-requisite: MOR 100 and MOR 115 with a grade of “C” or better. Co-requisite: MOR 117 Advanced Medical Office Radiology Clinical: 3.0 credits (180 contact hours).
Components: Clinical
Attributes: Technical

MOR 200(3) Course ID: 006709
Shipboard Deck Operations
Provides principles of responsibilities, policies, training, safety and rigging procedures for towboat personnel. Pre-requisite: MOR 100. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MRN 101(3) Course ID: 006706
Anatomy of a Towboat
Introduces components found on modern towboats with emphasis on an overview of all areas of the vessel from the wheelhouse to the engine room to the external components. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MRN 102(3) Course ID: 006707
Basic Marine Safety
Provides an overview of risk-based decision making skills for assessing and managing marine hazards to prevent marine accidents or casualty. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MRN 103(3) Course ID: 007412
Applied Marine Weather
Covers fundamental maritime weather concepts to plan safe and efficient voyages. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MRN 104(3) Course ID: 007413
Marine Crew Wellness
Examines how nutrition, exercise, and disease affect the crewmembers’ ability to maintain a U.S. Coast Guard license. Focuses on nutrition and exercise programs while working, and prevention of disease. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MRN 198(6) Course ID: 006708
Marine Co-Op Experience I
Gives students experience in a higher level position in the marine industry. Provides compensated on-the-job work experience under the supervision of a qualified affiliate of the industry. Pre-requisite: 360 hours of river industry experience. Co-requisite: Current employment with the company providing the co-op experience. Co-Op: 6 credits (450 contact hours).
Components: Co-Op
Attributes: Technical

MRN 200(3) Course ID: 006710
Rules of the Road
Provides an in-depth analysis of the United States Coast Guard (USCG) Navigation Rules with an emphasis on the history and interpretation of the rules. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MRN 202(3) Course ID: 006711
Piloting and Navigation
Identifies the effect of inland waterway prevailing conditions on vessels; provides instruction on locking procedures, radio telephone regulations, hydrology, and piloting skills. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
MRN 203(3) Course ID: 006712
Environmental Protection Rules
Provides analysis of environmental regulations governing the marine industry. Explores the environmental practices of vessels on the inland waterway systems and the government agencies which establish industry regulations. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MRN 204(5) Course ID: 006713
Marine Electrical Systems
Explores and applies the theory of electricity with an emphasis on power systems, circuits, safety procedures, and maintenance measures needed to maintain electrical systems aboard towing vessels. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

MRN 205(3) Course ID: 006714
Marine Electrical Systems II
Explores the maintenance measures needed to maintain electrical systems aboard towing vessels on the inland river system. Pre-requisite: MRN 204. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MRN 206(5) Course ID: 006715
Marine Diesel
Introduces the operation and components of a marine diesel engine with emphasis on diesel engine theory, safety precautions, internal and external components, and contributing operation systems. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

MRN 207(3) Course ID: 006716
Marine Diesel II
Identifies the various systems involved in the operation of a marine diesel engine, including the application of the knowledge of diesel operation to maintenance and troubleshooting exercises. Pre-requisite: MRN 206. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MRN 208(3) Course ID: 006717
Inland River Systems
Explores the U.S. inland waterway system and its tributaries as they relate to the inland marine industry and the movement of cargos. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MRN 212(5) Course ID: 007414
Marine Fluid Systems
Incorporates practical experience in fluid power theory, component identification and application, schematic reading, and basic calculations related to marine fluid systems. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

MRN 214(4) Course ID: 007415
Marine Refrigeration Systems
Introduces the fundamentals of refrigeration, including use of tools, test equipment, materials, environmental issues, and safety. Lecture/Lab: 4.0 credits (69 contact hours).
Components: Lecture
Attributes: Technical

MRN 299(6) Course ID: 006720
Marine Co-Op Experience II
Gives students further experience in a higher level position in the marine industry. Provides supervised on-the-job work experience directly in line with the students' educational objective. Pre-requisite: MRN 199. Co-requisite: Current employment with the company providing the co-op experience. Co-Op: 6 credits (450 contact hours).
Components: Co-Op
Attributes: Technical

MRN 1001(1) Course ID: 015787
Marine Terminology and Safety
Provides fundamental terminology and safety concepts expected of personnel working aboard an inland towing vessel. Pre-requisite: Instructor Consent. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MRN 1002(1) Course ID: 015788
Seamanship, Rigging, and Tows
Provides basic seamanship expected of personnel working aboard an inland towing vessel. Pre-requisite: MRN 1001. Lecture: 1.0 credit (15 contact hours).
Components: Laboratory

MRN 1003(1) Course ID: 015789
Marine Operations & Equipment
Introduces the responsibilities of the engineering department and systems on board an inland towing vessel. Pre-requisite: MRN 1002. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MRN 1011(1) Course ID: 015790
Basic Towboat Design
Introduces components found on modern towboats with emphasis on towboat design and arrangement of equipment. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MRN 1012(1) Course ID: 015791
Wheelhouse Equipment
Introduces basic arrangement of wheelhouse equipment and use. Pre-requisite: MRN 1011. Lecture: 1.0 credit (15 contact hours).
Components: Laboratory

MRN 1013(1) Course ID: 015792
Mechanical Support Systems
Introduces mechanical support equipment aboard an inland towing vessel. Pre-requisite: MRN 1012. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MRN 1021(1) Course ID: 015793
Marine Safety
Introduces risk-based assessment and decision making factors for marine safety on an inland marine vessel. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MRN 1022(2) Course ID: 015794
Marine Risk-Based Analysis
Provides analysis for assessing and managing marine hazards to prevent marine accidents or casualty. Pre-requisite: MRN 1021. Lecture: 2.0 credits (30 contact hours).
Components: Lecture

MRN 1031(1.5) Course ID: 015795
Weather Forecasting
Introduces weather forecasting for safe and efficient voyage. Lecture: 1.5 credits (22.5 contact hours).
Components: Lecture

MRN 1032(1.5) Course ID: 015796
Maritime Weather
Introduces maritime weather as it relates to voyages. Pre-requisite: MRN 1031. Lecture: 1.5 credits (22.5 contact hours).
Components: Lecture

MRN 1041(1.5) Course ID: 015797
Crew Wellness
Examines how nutrition, exercise, and disease affect the crewmember’s ability to maintain a U.S. Coast Guard license. Lecture: 1.5 credits (22.5 contact hours).
Components: Lecture

MRN 1042(1.5) Course ID: 015798
Crew Lifestyle
Focuses on nutrition and exercise programs while working and the prevention of disease. Pre-requisite: MRN 1041. Lecture: 1.5 credits (22.5 contact hours).
Components: Lecture

MRN 2002(1) Course ID: 016380
Shipboard Deck Safety
Components: Lecture

MRN 2003(1) Course ID: 016381
Shipboard Deck Rigging
Provides specifics on rigging procedures for towboat personnel. Pre-requisite: MRN 2002. Lecture: 1 credit (15 contact hours).
Components: Lecture

MRN 2011(1.5) Course ID: 016382
History of Navigation Rules
Provides an in-depth analysis of the history and effects of navigation rules. Lecture: 1.5 credits (22.5 contact hours).
Components: Lecture

MRN 2021(1) Course ID: 016384
River Conditions
Identifies the effect of inland waterway prevailing conditions on vessels and hydrology. Lecture: 1 credit (15 contact hours).
Components: Lecture

MRN 2023(1) Course ID: 016386
Piloting
Provides instruction on locking procedures, radio telephone regulations and piloting skills. Pre-requisite: MRN 2022. Lecture: 1 credit (15 contact hours).
Components: Lecture

MRN 2031(1) Course ID: 015799
Environmental Regulations I
Provides analysis of environmental regulations governing the marine industry. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MRN 2032(1) Course ID: 015800
Environmental Regulations II
Provides analysis of Marine Pollution Convention and the National Pollution Discharge Elimination System. Pre-requisite: MRN 2031. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MRN 2033(1) Course ID: 015801
Environmental Regulations III
Explores the environmental practices of vessels on the inland waterway systems and the agencies which establish industry regulations. Pre-requisite: MRN 2031 and MRN 2032. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MRN 2041(1.66) Course ID: 016387
Intro to Marine Electrical
Explores the theory of electricity with an emphasis on power systems, circuits, and safety procedures needed to maintain electrical systems aboard towing vessels. Lecture/Lab: 1.66 credits (35 contact hours).
Components: Lecture

MRN 2042(1.67) Course ID: 016388
Marine Electrical Application
Applies the theory of electricity with an emphasis on power systems, circuits, and maintenance measures needed to maintain electrical systems aboard towing vessels. Pre-requisite: MRN 2041. Lecture: 1.67 credits (35 contact hours).
Components: Lecture

MRN 2043(1.67) Course ID: 016389
Marine Electrical Hardware
Applies the theory of electricity with an emphasis on maintenance measures needed for electrical systems aboard towing vessels. Pre-requisite: MRN 2042. Lecture/Lab: 1.67 credits (35 contact hours).
Components: Lecture
Introduction to Materials Science

Explores the U.S. inland waterway system and its tributaries for the Ohio River region as they relate to the inland marine industry and the movement of cargos. Pre-requisite: MRN 2121. Lecture 1 credit (15 contact hours).

Components: Lecture

Upper Mississippi River System

Explores the U.S. inland waterway system and its tributaries for the Upper Mississippi river region as they relate to the inland marine industry and the movement of cargos. Pre-requisite: MRN 2081. Lecture 1 credit (15 contact hours).

Components: Lecture

Inland River Systems

Explores the U.S. inland waterway system and its tributaries for the Ohio River region as they relate to the inland marine industry and the movement of cargos. Pre-requisite: MRN 2002. Lecture 1 credit (15 contact hours).

Components: Lecture

Inlet Marine Fluid Systems

Incorporates practical experience in fluid power theory and schematic reading related to fluid power systems. Lecture/ Lab: 1.66 credits (35 contact hours)

Components: Lecture

Maintenance & Control Devices

Incorporates practical experience in fluid power theory and basic calculations related to marine fluid systems. Pre-requisite: MRN 2122. Lecture/Lab: 1.67 credits (35 contact hours).

Components: Lecture

Introduction to Marine HVAC

Introduces the fundamentals of refrigeration. Lecture: 1 credit (15 contact hours)

Components: Clinical

Marine HVAC Safety

Introduces refrigeration tools, test equipment, and safety. Pre-requisite: MRN 2141. Lecture: 1 credit (15 contact hours)

Components: Lecture

Advanced Clinical Massage I

Prepares the student in the knowledge and skills of advanced massage techniques and integrating them in a medical atmosphere. Co-requisite: MSG 110. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

Advanced Clinical Massage II

Prepares students to integrate their massage practice into a clinical setting of rehabilitation of orthopedic conditions and injuries. Includes patient assessment, advanced orthopedics, and rehabilitative and preventative massage techniques. Pre-requisite: MSG205. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

Massage Therapy Student Clinic

Applies principles and techniques by providing students with experience through a student massage clinic. Co-requisite: MSG 210. Lab: 2.0 credits (90 contact hours).

Components: Laboratory

Attributes: Technical

Massage Therapy Practicum and Special Topics:

This course addresses various massage therapy topics, issues, and trends. It also allows students to practice techniques already acquired, and to demonstrate mastery of new ones covered in the topics portion. Topics may vary from semester to semester at the discretion of the instructors: course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Massage Therapy Certificate. Practicum: 1-6 credits (60-360 contact hours).

Components: Practicum

Attributes: Technical

Massage Therapy Student Clinic

Enhances the students' experiences in the operation of a Massage Therapy business by their active participation in all aspects of a student-run business, including marketing, managing schedules and resources, and performing massage services. Pre-requisite: MSG 134. Lecture/Lab: 3.0 credits (105 contact hours).

Components: Lecture

Attributes: Technical

Massage Therapy Practicum and Special Topics:

This course addresses various massage therapy topics, issues, and trends. It also allows students to practice techniques already acquired, and to demonstrate mastery of new ones covered in the topics portion. Topics may vary from semester to semester at the discretion of the instructors: course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Massage Therapy Certificate. Practicum: 1-6 credits (60-360 contact hours).

Components: Practicum

Attributes: Technical
Multi-Skilled Systems Technician
Introduces the systems approach to the operation of electrical components and the relationship of voltage, current, resistance, and power in industrial systems. Provides an overview of alternating and direct current fundamentals. Introduces the systems approach to the operation of mechanical components and the relationship of their application in industrial systems. Provides an overview of rotating machinery fundamentals. Introduces the systems approach to the operation of hydraulic / pneumatic components and the relationship of their application in industrial systems. Provides an overview of digital fundamentals. Lecture/Lab: 9.0 credits (180 contact hours).
Components: Lecture Attributes: Technical

MST 200(3) Course ID: 001778
Advanced Hydraulic Systems
The advanced hydraulic systems class will cover design, repair, and troubleshooting of hydraulic systems. Prerequisite: FPXX 100, FPXX 101
Components: Lecture Attributes: Technical

MST 204(3) Course ID: 001780
Advanced Pneumatic Systems
Design, repair, and troubleshooting of pneumatic systems will be covered in this course. Prerequisite: FPXX 100, FPXX 101
Components: Lecture Attributes: Technical

Electrohydraulics
Introduces electronic/electrical controls as it pertains to hydraulic valve control with the emphasis on automation, robotic and servo control. Lecture: 3 credits (45 contact hours). Prerequisite: ENG 110 and FPXX 100 or Consent of Instructor. Corequisite: MST 207.
Components: Lecture Attributes: Technical

MST 206(3) Course ID: 005259
Electrohydraulics Lab
Introduces electronic/electrical controls as it pertains to hydraulic valve control with the emphasis on automation, robotic and servo control. Laboratory: 2 credits (90 contact hours). Prerequisite: ENG 110 and FPXX 100 or Consent of Instructor. Corequisite: MST 206.
Components: Laboratory Attributes: Technical

MSY Masonry
MSY 105(3) Course ID: 001555
Introductory Masonry
Introduces various types of mortar and cement along with the use of basic masonry tools. Emphasizes different methods of spacing materials on a construction site, the 6-8-10 method, and the use of the transit level, brick spacing and modular rule focusing on laying straight and plumb brick to the line, brick gables and building columns. Covers application techniques for setting up different types of masonry materials, marking off layout lines and erecting batter boards along with techniques employed in different types of weather and climates. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

Intermediate Masonry
Builds on proficiency in competencies learned in MSY 105. Focuses on laying straight and plumb brick to the line with emphasis on bricks gables and building columns. Prerequisite: MSY 105 with a grade of “C” or higher Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 198(3) Course ID: 001657
Instructor Consent Required
Practicum I
Provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. Prerequisite: Consent of Instructor. Practicum: 3.0 credits (90 contact hours).
Components: Practicum Attributes: Technical

Practicum II
Provides additional supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. Prerequisite: Consent of Instructor. Practicum: 3.0 credits (90 contact hours).
Components: Practicum Attributes: Technical

MSY 251(3) Course ID: 001665
Concrete Finishing
Focuses on theory and techniques inherent in the art of concrete finishing. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 253(3) Course ID: 001666
Masonry Floors and Steps
Provides students with the opportunity to lay paving brick, steps, and flagstone floors including laying different types of patterns. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 257(3) Course ID: 001668
Stone
Includes identifying the types of stone and the different types of bonds used in stone masonry. Prerequisite: MSY 105 with a grade of “C” or higher Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 275(3) Course ID: 001669
Fireplace Construction
Presents different types and styles of indoor and outdoor fireplaces, and the principles of layout, drafting and drawing a fireplace. Includes finishing dimensions of fireplace opening, firebox layout, setting the flue lining, and applying a chimney cap. Prerequisite: MSY 205 with a grade of “C” or higher Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 291(1 - 3) Course ID: 001670
Masonry Applications
Provides students with additional opportunity to refine skills. Lab: 1.0 - 3.0 credits (45-135 contact hours).
Components: Laboratory Attributes: Technical

MSY 292(3) Course ID: 001671
Instructor Consent Required
Practicum II
Provides additional supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. Prerequisite: Consent of Instructor. Practicum: 3.0 credits (90 contact hours).
Components: Practicum Attributes: Technical

MSY 293(3) Course ID: 001672
Instructor Consent Required
Cooperative Education II
Provides additional supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Co-op Education program receive compensation for their work. Prerequisite: Consent of Instructor. Co-op: 3.0 credits (90 contact hours).
Components: Co-op Attributes: Technical
MUP Music Performance

MUP 101(1 - 3) Course ID: 002242
Instructor Consent Required
Piano
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Prerequisite: Satisfactory audition and approval of instructor.

Components: Laboratory
Attributes: Other
MUP 102(1 - 3) Course ID: 002243
Instructor Consent Required
Voice
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Prerequisite: Satisfactory audition and approval of instructor.

Components: Laboratory
Attributes: Other
MUP 114(1 - 3) Course ID: 006459
Instructor Consent Required
Trombone I
Provides a systematic study of trombone performance. May be repeated for a total of 3 credits. Laboratory: 1.0 - 3.0 credits (7.5 - 22.5 contact hours).

Prerequisite: Consent of instructor.

Components: Laboratory
Attributes: University Course (University of Kentucky)

MUS Music

MUS 100(3) Course ID: 000883
Introduction to Music
Introduces the elements of music as they apply to the listening experience. Emphasizes the development of an awareness and understanding of musical styles from the Middle Ages to the present. Designed for the non-music major with no prior knowledge of music and is not intended to fulfill a program course requirement for music majors.

Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules
MUS 104(3) Course ID: 004548
Introduction to Jazz History
A survey of the many facets of jazz music. Designed to follow stylistic trends as developed from 19th century African and European influences to the modern forms of today. The study of significant composers, performers, and terminology associated with this uniquely American art form through listening assignments, reading and discussion activities. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Culture Studies, AH - Arts and Humanities
MUS 106(3) Course ID: 006188
Music in Film
Presents a survey of the history of film from the silent era to the present. Develops critical listening, viewing, and analytical skills in relation to the function of music in film. Explores various cultural, artistic traditions which inform the musical styles in film. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities, University Course (Morehead State University)

MUS 113(1) Course ID: 006900
Class Instruction in Guitar I
Introduces the fundamentals of guitar playing to beginners.

Lab: 1 credit (30 contact hours).

Components: Laboratory
Attributes: Other, Pilot Course
MUS 114(1) Course ID: 006899
Class Instruction in Guitar II
Introduces the fundamentals of guitar playing on an intermediate level. Pre-requisite: Guitar I or consent of instructor.

Lab: 1 credit (30 contact hours).

Components: Laboratory
Attributes: Other, Pilot Course
MUS 120(3) Course ID: 004609
Music Technology I
Introduces the use of technology as a tool for music creativity and productivity. Includes knowledge of how to create various styles of contemporary music utilizing loop and sampling based technology, creation of wav files, MIDI files, CD layout, and class projects. Prerequisite: MUS 174 or Consent of Instructor.

Lab: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Other
MUS 121(3) Course ID: 004610
Music Technology II
Continues the process of integrating computer based technology into the creation and design of music through artistic and commercial applications. Covers intermediate skills in music notation, MIDI (Musical Instrument, Digital Interface) sequencing, and electronic keyboarding. Includes the exploration of many ways to incorporate these skills into computer/MIDI applications.

Prerequisite: MUS 120 or consent of the instructor.

Lab: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Other
MUS 150(1) Course ID: 002231
Class Instruction in Piano I
Introduces the fundamentals of piano playing to beginners.

Lab: 1 credit (30 contact hours).

Components: Laboratory
Attributes: Other
MUS 151(1) Course ID: 002232
Class Instruction in Piano II
Develops the fundamentals of piano playing on a second level, with advanced beginner music and technique.

Prerequisite: MUS 150.

Lab: 1.0 credit (30 contact hours).

Components: Laboratory
Attributes: Other
MUS 152(1) Course ID: 002233
Class Instruction in Piano III
Develops the fundamentals of piano playing on an early intermediate level, with an emphasis on expanded repertoire.

Prerequisite: MUS 151. Lab: 1.0 credit (30 contact hours).

Components: Laboratory
Attributes: Other
MUS 153(1) Course ID: 002234
Class Instruction in Piano IV
Develops the technique and musical content of piano playing on an upper intermediate level, with an emphasis on upper intermediate repertoire.

Prerequisite: MUS 152.

Lab: 1.0 credit (30 contact hours).

Components: Laboratory
Attributes: Other
MUS 155(1) Course ID: 002235
Instructor Consent Required
Voice Class for Non-Music Majors
Includes applied voice group instruction for non-music majors with emphasis on basic breathing and vocal technique, elements of music notation, and diction. May be repeated for a maximum of 2 credits.

Prerequisite: Consent of instructor.

Lab: 1 credit (15 contact hours).

Components: Laboratory
Attributes: Other

Course Descriptions
MUS 174(3) Course ID: 002249
Theory of Nonmusic Majors
Introduces basic materials of musical organization, focusing on music reading, rudiments of notation, pitch, scale, tonal, and rhythmic organization, melodic construction, simple harmonic vocabulary, and beginning aural training. Uses individual composition and improvisation exercises to approach much of this material. Ability to read music is not a pre-requisite.
Components: Lecture
Attributes: Other
MUS 175(1)
Instructor Consent Required
Jazz Ensemble
Introduces the study of jazz through performance and may be repeated to a maximum of four credits. Pre-requisite: Consent of Instructor. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Other
MUS 187(1)
Instructor Consent Required
Concert Band
Continues instrumental music experience through participation in a large concert band. May be repeated to a maximum of four credits. Prerequisite: Ability to read music and play a band instrument.
Components: Laboratory
Attributes: Other
MUS 192(1)
Instructor Consent Required
University Chorus
Includes choral literature and performance requiring attendance at up to five hours of rehearsals per week. May be repeated up to 3 times for a total of 4 credits. May require audition and/or consent of instructor. Prerequisite: Audition and consent of instructor. Lab: 1 credit (15-45 contact hours).
Components: Laboratory
Attributes: Other
MUS 206(3)
American Music History
A history of American music from c. 1620 to the present. Requires listening to recordings, reading the primary text and suggested readings in books, periodicals, and documents. Focuses on important names, places, events, and styles in music, as well as important historical trends and movements.
Components: Lecture
Attributes: AH - Arts and Humanities
MUS 207(3)
Course ID: 004774
African American Music History
examines topics selected in music and/or their impact on culture. May include but is not limited to individual composers, music genres, defined eras, and applied skills. Topics may vary from semester to semester at the discretion of the instructor. Prerequisite: MUS 100 or consent of the instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture
Attributes: Other
MUS 222(3) Course ID: 002253
History and Sociology of Rock Music
Provides a listening survey course, with a chronological approach, covering the years 1950-present. Emphasizes both the music and the sociological climate reflected and advocated by the music. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
MUS 223(3) Course ID: 006581
Music for Elementary Teachers
Covers music rudiments of music theory and methods for teaching music to elementary school children. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
MUS 260(2)
Course ID: 000692
Teaching Music in the Elementary Grades I
Develops musicianship, skills, and techniques teachers need to direct musical activities effectively in the elementary classroom. Introduces music fundamentals and teaching materials through active participation in musical activities, focusing on music education appropriate for elementary grades. Should be taken by classroom teachers and non-music majors and followed by MUS 261. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture
Attributes: Other
MUS 261(2) Course ID: 000699
Teaching Music in the Elementary Grades II
Builds on the musicianship skills and techniques learned in MUS 260. Develops the process of selecting and teaching musical materials appropriate for elementary-aged children. Introduces methods of integrating music across the elementary curriculum. Should be taken immediately following completion of MUS 260. Prerequisite: MUS 260. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture
Attributes: Other
MUS 299(1 - 3)
Course ID: 006343
Special Topics in Music
Examines selected topics in music and/or their impact on culture. May include but is not limited to individual composers, music genres, defined eras, and applied skills. Topics may vary from semester to semester at the discretion of the instructor. Prerequisite: MUS 100 or consent of the instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture
Attributes: Other
MVC 299(1 - 8) Course ID: 005317
Metroversion Topics
Includes Special Topics for the Metroversion Consortium (Jefferson Community & Technical College, Bellarmine University, Indiana University Southeast, IVY Tech Community College, Louisville Presbyterian Theological Seminary, Southern Baptist Theological Seminary, Spalding University, and University of Louisville). Specific course descriptions, outlines, and competencies will be on file at the credit-bearing institution. GPA 2.0 and completion of 12 credit hours in KCTCS required. Lecture/Lab: 1-8 credit hours.
Components: Laboratory, Lecture
Attributes: Other
NAA 100(3) Course ID: 004611
Nursing Assistant Skills I
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. The focus is communication, infection control, safety, resident/patient rights, and basic nursing skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450.
Components: Lecture
Course Equivalents: MAA 100
Attributes: Course Also Offered in Modules, Technical
NAA 102(3) Course ID: 006887
Basic Health Unit Coordinating
Presents the duties and responsibilities of the health unit coordinator with an emphasis on communication skills, confidentiality, legal and ethical issues, and order entry. Lecture 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Pilot Course, Technical
NAA 115(3) Course ID: 004612
Nursing Assistant II
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. Builds upon MNA 100/NAA 100 and prepares the student to perform advanced nursing assistant skills. Prerequisite: (MNA 100 or NAA 100) with a grade of "C" or above within one year) or Active Status on the Kentucky Nurse Aide Registry (in good standing) or consent of instructor. Lecture: 2.0 credits (30 contact hours) Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
NAA 125(6) Course ID: 004613
Advanced Nursing Assistant
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings. Focuses on communication, infection control, safety, resident/patient rights while preparing the student to perform advanced nursing assistant skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical
NAA 1001(2) Course ID: 006250
Long Term Care Nurse Aide
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. Focuses on communication, infection control, safety, resident/patient rights, and basic nursing skills.
Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396 and 907 KAR 1:450. Lecture: 2 credits (30 contact hours). Components: Lecture
Components: Laboratory, Lecture
NAA 1002(0.56) Course ID: 006251
Nurse Aide Skills Laboratory
Includes the laboratory component for application of skills and concepts taught in the nurse aide program. Pre-requisite: NAA 1001. Lab: .56 credit (25.0 contact hours).
Components: Laboratory
NAA 1003(0.44) Course ID: 006252
Nurse Aide Clinical Rotation
Includes the required supervised practical training component. Provides a working knowledge of the physiological, psychological, and sociological impact of institutionalization on the nursing facility resident. Pre-requisite: NAA 1002. Clinical: .44 credit (20 contact hours).
Components: Clinical
NAA 1021(1) Course ID: 016419
Health Unit Coordinating
Presents communication skills and safety duties and responsibilities of the health unit coordinator. Lecture: 1 credit (15 contact hours).
Components: Lecture
NAA 1022(1) Course ID: 016420
Health Unit Management
Presents health unit coordinator duties and responsibilities regarding confidentiality and legal and ethical issues. Pre-requisite: NAA 1021. Lecture: 1 credit (15 contact hours).
Components: Lecture
NAA 1023(1) Course ID: 016421
Transcription of Orders
Presents order entry duties and responsibilities of the health unit coordinator. Pre-requisites: NAA 1022. Lecture: 1 credit (15 contact hours).
Components: Lecture
NFS Nutrition and Food Science
NFS 101(3) Course ID: 000898
Human Nutrition and Wellness
Food consumption, digestion, absorption, and metabolism as related to selection of nutrients essential for human life, growth, reproduction, lactation, wellness, and physical activity. Not open to NFS majors except hospitality management students.
Components: Lecture
Attributes: Other
NAT Natural Gas Technology
NGT 125(1) Course ID: 005024
Compliance With National Fuel Gas Code
A continuance of safety information unique to the natural gas industry. Emphasis is placed on effective ways to avoid accidents and injuries at the worksite. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical
NGT 130(1) Course ID: 005025
Compliance With Code of Federal Regulations
A survey of the criteria for the installation, maintenance and inspection of gas pipelines up to the outlet of the customer's meter. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical
NGT 210(2) Course ID: 005032
Troubleshooting Cathodic Protection Rectifiers
Presents the electrical circuits basic to protection current rectifiers. Lecture: 2 credit (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical
NGT 1001(0.25) Course ID: 006446
Basic Procedures/Processes
Presents the major components of a natural gas system from well head to burner. Presents actions that each component has on the gas stream in the context of the total system. Reviews key terms and definitions applied to conditions common to the utilization of natural gas. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture
NGT 1002(0.25) Course ID: 006447
Basic Properties of Fuel Gases
Presents advanced procedures for extracting natural gas from the earth and for transporting and regulating natural gas with an emphasis on the physical and chemical properties of natural fuel gases. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture
NGT 1003(0.75) Course ID: 006448
Adjusting Gas Burners
Presents the science of gas burner design, factors affecting the proper combustion of fuel gas, and techniques used to measure gas input rates, gas flow, and pressure. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture
NGT 1004(0.75) Course ID: 006449
Regulating Natural Gas
Presents factors related to measurement of natural gas in a distribution system, pressure regulation, accurate measurement of natural gas, and irregularities in meter installations. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture
NGT 1005(0.5) Course ID: 006450
Gas Distribution Calculations
Presents methods for calculating area and volume measurements, gas flow rate measurements and heating values, venting and ventilation requirements for proper burning of natural gas, and comparing fuel costs.
Components: Lecture
NGT 1006(0.5) Course ID: 006451
Records & Compliance Reports
Focuses on U.S. Department of Transportation reporting requirements, reading maps of natural gas systems, and preparing field sketches. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
NGT 1101(1.25) Course ID: 006452
Controlling/Preventing Fires
Introduces factors related to the fire extinguishing process, ways to prevent gas fires, and ways to extinguish natural gas fires. Lecture: 0.25 credits (3.75 contact hours); Lab: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture
NGT 1102(0.75) Course ID: 006461
Safe Working Environment
Emphasizes work safely practices, proper use of equipment, hazards of escaping gas, and drug testing and rehabilitation programs. Lecture: 0.25 credits (3.75 contact hours); Laboratory: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture
NGT 1103(0.5) Course ID: 006462
Preventing Accidental Ignition
Identifies conditions, causes, and hazards related to gas leakage: emphasizes safety practices and procedures to prevent accidental ignition of natural gas. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
NGT 1104(0.5 - 500) Course ID: 006463
Traffic Control Guidelines
Present the basic standard for traffic control as described in the annual on Uniform Traffic Control Devices, Part VI According to the U.S. Department of Transportation.
Components: Laboratory, Lecture
NGT 1401(0.5) Course ID: 006465
Excavating
Focuses on the Occupational Safety and Health Administration (OSHA) requirements for earth excavation, protection systems, and tables and specifications for designing protective systems. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
NGT 1402(1.25) Course ID: 006466
Operating Equipment Safety
Presents techniques of tractor/loader/backhoe operation while emphasizing safety precautions, maintenance and inspection, and proper control. Lecture: 0.25 credits (3.75 contact hours); Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture
NGT 1403(0.75) Course ID: 006467
Safety in Confined Spaces
Introduces confined spaces with emphasis on identifying hazards, monitoring of the atmosphere, entry procedures, and controlling hazardous energy. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture
NGT 1404(0.5) Course ID: 006468
Communicating Potential Hazard
Examines health related chemical and explosive hazards while emphasizing identification of hazard information from labels and material safety data sheets and methods used to work safely with toxic chemicals and hazardous materials. Lecture: .25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
NGT 1501(0.5) Course ID: 006453
Gas-in-Air Mixture
Focuses on detecting the presence of and measuring the percent of gas in a gas-in-air mixture. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
NGT 1502(0.5) Course ID: 006454
Gas Leaks/odors
Presents basic facts about natural gas and natural gas leaks with emphasis on responding to gas leak and odor calls. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
NGT 1503(0.5) Course ID: 006455
Underground Facilities
Presents procedures and techniques basic to locating and marking underground pipeline facilities. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
NGT 1504(0.5) Course ID: 006456
Underground Leaks
Presents the theory and practice for investigating and pinpointing underground natural gas leaks. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
NGT 1505(0.75) Course ID: 006464
Patrol/Leakage Surveys
Presents factors basic to patrol of pipeline facilities to include the practice of patrol and leakage surveys. Lecture: 0.5 credits (7.5 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
NGT 1506(0.25) Course ID: 006618
Detecting Carbon Monoxide
Presents the characteristics of carbon monoxide and the guidelines for investigation of carbon monoxide. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course ID</th>
<th>Title</th>
<th>Description</th>
<th>Contact Hours</th>
<th>Credits</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGT 1601(0.75)</td>
<td>006469</td>
<td>Establishing a Gas Service</td>
<td>Presents methods used when establishing a gas service with emphasis piping from the main to customer’s piping, piping inside buildings, and gas-operated equipment in service.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).</td>
<td>0.75</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 1602(0.75)</td>
<td>006470</td>
<td>Odorant Levels</td>
<td>Presents federal and Kentucky standards for proper odorant levels with emphasis on monitoring odorant levels.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).</td>
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<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 1603(0.75)</td>
<td>006471</td>
<td>Installing Domestic Service</td>
<td>Presents US Department of Transportation and industry-recognized procedures for installing domestic gas service.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).</td>
<td>0.75</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 1604(0.75)</td>
<td>006472</td>
<td>Purging Techniques</td>
<td>Presents the theory and techniques common to purging natural gas lines, including safe practices and isolation of equipment during purging.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).</td>
<td>0.75</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 1701(0.5)</td>
<td>006473</td>
<td>Gas-Operated Appliances</td>
<td>Presents procedures for checking natural gas appliance systems to ensure proper installation and safe operation.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
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<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 1702(0.5)</td>
<td>006474</td>
<td>Servicing Gas Equipment</td>
<td>Presents safety related to the ventilation process, standards to ensure proper combustion and ventilation for gas-operated equipment, and ventilation inspection of gas-operated equipment.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
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<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 1703(0.75)</td>
<td>006475</td>
<td>Venting Gas Equipment</td>
<td>Presents venting requirements for Categories I-VI gas-operated appliances; identifies features and benefits of high efficiency equipment with practice in sizing of vents and inspecting venting systems.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).</td>
<td>0.75</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 1704(1.25)</td>
<td>006476</td>
<td>Electrical Concepts</td>
<td>Presents the basis for troubleshooting electrical control circuits in gas-operated appliances with emphasis on reading electrical circuit diagrams and their physical arrangement in the appliance.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 1 credit (30 contact hours).</td>
<td>1.25</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 1801(0.5)</td>
<td>006477</td>
<td>Installing Mains &amp; Lines</td>
<td>Practices basic to installing gas mains and service lines with emphasis on safety, standards, and line-marking.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
<td>0.5</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 1802(0.5)</td>
<td>006478</td>
<td>Pipeline Installation</td>
<td>Examines the preparation of the pipeline right-of-way and the completion of the construction operation; presents the major phases of the inspection process.</td>
<td>Lecture: 0.5 credits (7.5 contact hours).</td>
<td>0.5</td>
<td>Lecture</td>
</tr>
<tr>
<td>NGT 1803(0.5)</td>
<td>006479</td>
<td>Joining Plastic Pipe</td>
<td>Presents the material specifications and installation practices for polyethylene pipe, joining plastic pipe with mechanical fittings, and identification of methods to control static electricity.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
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</tr>
<tr>
<td>NGT 1804(0.75)</td>
<td>006480</td>
<td>Plastic Pipe &amp; Heat Fusion</td>
<td>Presents the theory of heat fusing polyethylene pipe and the specification and conditions required to produce an acceptable joint.</td>
<td>Lecture: 0.5 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
<td>0.75</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 1805(0.5)</td>
<td>006481</td>
<td>Permanent Field Repairs</td>
<td>Presents common methods and installation practices used to make field repairs on gas piping facilities and natural gas pipelines.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
<td>0.5</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 1806(0.25)</td>
<td>006482</td>
<td>Joining Copper Pipe</td>
<td>Presents materials and techniques for joining copper pipe/tubing.</td>
<td>Lecture: 0.25 credits (3.75 contact hours).</td>
<td>0.25</td>
<td>Lecture</td>
</tr>
<tr>
<td>NGT 1901(0.5)</td>
<td>006483</td>
<td>Maintaining Line Valves</td>
<td>Presents basic design characteristics and maintenance procedures for pipeline valves.</td>
<td>Lecture: 0.5 credits (7.5 contact hours).</td>
<td>0.5</td>
<td>Lecture</td>
</tr>
<tr>
<td>NGT 1902(0.5)</td>
<td>006484</td>
<td>Pressure Relief Valves</td>
<td>Presents components and operating characteristics of typical pressure relief valve installations; emphasizes spring-operated and pilot-operated pressure relief valves; focuses on factors to consider when installing pressure relief valves.</td>
<td>Lecture: 0.5 credits (7.5 contact hours).</td>
<td>0.5</td>
<td>Lecture</td>
</tr>
<tr>
<td>NGT 1903(0.5)</td>
<td>006485</td>
<td>Abandon/Deactivate Facilities</td>
<td>Presents processes and procedures for deactivating/abandoning gas facilities.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
<td>0.5</td>
<td>Laboratory, Lecture</td>
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<tr>
<td>NGT 1904(0.5)</td>
<td>006486</td>
<td>Cast Iron Pipe</td>
<td>Presents materials and procedures for repairing cast iron pipe; emphasizes protection of cast iron pipe while excavating.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
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<td>Laboratory, Lecture</td>
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<tr>
<td>NGT 1905(1)</td>
<td>006487</td>
<td>Inspecting Pipe Welds</td>
<td>Presents duties and responsibilities basic to the practice of inspecting pipe welds; emphasizes the identification and evaluation of welder defects.</td>
<td>Lecture: 0.5 credits (7.5 contact hours), Lab: 0.5 credits (15 contact hours).</td>
<td>1</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 2001(0.75)</td>
<td>006488</td>
<td>Tapping/Stopping Pipelines</td>
<td>Presents techniques used to safely tap and stop pipelines under pressure.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).</td>
<td>0.75</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 2002(0.75)</td>
<td>006489</td>
<td>Pipeline Pigging</td>
<td>Presents techniques basic to pigging pipelines.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).</td>
<td>0.75</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 2003(0.75)</td>
<td>006490</td>
<td>Purging Techniques</td>
<td>Presents factors affecting the mechanical nature of displacing one gas with another gas by purging.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).</td>
<td>0.75</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 2051(0.5)</td>
<td>006492</td>
<td>Corrosion Control</td>
<td>Presents the characteristics of corrosion, conditions causing corrosion in buried metal piping, and processes and procedures basic to corrosion control.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
<td>0.5</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 2052(0.5)</td>
<td>006493</td>
<td>Installing Cathodic Systems</td>
<td>Presents procedures for installing cathodic protection systems.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
<td>0.5</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 2053(0.5)</td>
<td>006494</td>
<td>Testing Corrosion Systems</td>
<td>Presents methods for monitoring and testing corrosion control systems.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
<td>0.5</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 2054(0.5)</td>
<td>006495</td>
<td>Monitoring Corrosion Control</td>
<td>Presents information and techniques for monitoring corrosion control methods on buried metal pipelines.</td>
<td>Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).</td>
<td>0.5</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 2101(1)</td>
<td>006496</td>
<td>Principles of Electricity</td>
<td>Presents the basics of both D.C. and A.C. electrical theory with an emphasis on current flow designs.</td>
<td>Lecture: 1 credit (15 contact hours).</td>
<td>1</td>
<td>Lecture</td>
</tr>
<tr>
<td>NGT 2102(1)</td>
<td>006497</td>
<td>Rectifier Components</td>
<td>Presents the theory and practice of identifying and testing typical rectifier components with emphasis on the identification of rectifying circuits, rectifier selection methods, and specialized types of rectifiers.</td>
<td>Lecture: 0.50 credits (7.5 contact hours), Lab: 0.50 credits (15 contact hours).</td>
<td>1</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 2103(1)</td>
<td>006498</td>
<td>Rectifiers</td>
<td>Presents information and techniques for putting cathodic protection rectifier systems into service.</td>
<td>Lecture: 0.5 credits (7.5 contact hours), Lab: 0.5 credits (15 contact hours).</td>
<td>1</td>
<td>Laboratory, Lecture</td>
</tr>
<tr>
<td>NGT 2201(0.5)</td>
<td>006499</td>
<td>Gas Measurement</td>
<td>Presents concepts and principles basic to gas measurement; demonstrates the effects of gas pressure and temperature on gas measurement using mathematical calculations; reviews the operating principles of diaphragm, rotary and turbine meters used to measure gas.</td>
<td>Lecture: 0.5 credits (7.5 contact hours).</td>
<td>0.5</td>
<td>Lecture</td>
</tr>
</tbody>
</table>
Course Descriptions

NGT 2202(1)  Course ID: 006500  
Maintaining Line Valves  
Prepresents the basic operating principles and maintenance schedules of gas flow control valves; demonstrates proper use and care of high-pressure grease guns. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.30 credits (15 contact hours).  
Components: Laboratory, Lecture  
NGT 2203(0.5)  Course ID: 006501  
Pipeliner Heaters  
Prepresents the operation procedures and maintenance of catalytic and water bath indirect pipeline heaters. Lecture: 0.5 credits (7.5 contact hours).  
Components: Lecture  
NGT 2204(0.5)  Course ID: 006502  
Proper Odorant Levels  
Prepresents the industry standards and devices used to introduce odorants into a natural gas system; emphasizes testing for odorant levels and the proper handling of odorants. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).  
Components: Laboratory, Lecture  
NGT 2205(0.5)  Course ID: 006503  
Dew Point of a Gas  
Covers theory and practice used to test the dew point of a gas; explains methods used to test moisture in gas. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).  
Components: Laboratory, Lecture  
NGT 2301(0.5)  Course ID: 006504  
Orifice Meters  
Prepresents operating principles of orifice meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.5 credits (7.5 contact hours).  
Components: Lecture  
NGT 2302(0.5)  Course ID: 006505  
Turbine Meters  
Prepresents operating principles of turbine type meters; emphasizes identifying the identification of the meter components and their functions in the measurement process. Lecture: 0.5 credits (7.5 contact hours).  
Components: Lecture  
NGT 2303(0.5)  Course ID: 006506  
Diaphragm Meters  
Prepresents operating principles of diaphragm-type meters; emphasizes the identification of the meter components and their functions in the measurement process. lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).  
Components: Laboratory, Lecture  
NGT 2304(0.5)  Course ID: 006507  
Rotary Meters  
Prepresents operating principles of rotary meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).  
Components: Laboratory, Lecture  
NGT 2401(0.5)  Course ID: 006510  
Self-Operating Regulators  
Prepresents information and procedures basic to performing maintenance operations on self-operating pressure regulators. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).  
Components: Laboratory, Lecture  
NGT 2402(0.5)  Course ID: 006511  
Pilot Loaded Regulators  
Prepresents concepts and principles basic to the operation and selection of pressure regulators and the control of gas pressure. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).  
Components: Laboratory, Lecture  
NGT 2403(0.5)  Course ID: 006512  
Test Pressure Limits  
Prepresents the concepts and principles basic to test relief valves and pressure limiting and regulating stations. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).  
Components: Laboratory, Lecture  
NGT 2404(0.5)  Course ID: 006513  
Differential Pressure Recorder  
Prepresents information and procedures for maintaining and calibrating differential pressure recorders. lecture: 0.5 credits (7.5 contact hours).  
Components: Lecture  
NGT 2405(0.5)  Course ID: 006514  
Mercury Instruments  
Prepresents the fundamental operating and maintenance procedures for Mercury instruments, gauges and indexes. lecture: 0.5 credits (7.5 contact hours).  
Components: Lecture  
NGT 2406(0.5)  Course ID: 006515  
Multiple Range Pressure Chart  
Prepresents concepts and principles basic to reading multiple range pressure recording charts. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).  
Components: Laboratory, Lecture  
NIP 102(3)  Course ID: 006847  
Introduction of Pharmacology  
Introduces dosage calculations and medication administration of commonly used medications. Includes an overview of common drug classifications, drugs and their effects. Emphasizes drug responsibility, accountability, and application of nursing process to drug therapy. Incorporates the fundamental core values: caring, diversity, emphasis, ethics, holism, integration, and patient-centeredness. Incorporates the integrating concepts: context and environment, knowledge and science, quality and safety, and relationship-centered care. Pre-requisite: Admission to the Integrated Nursing Program; successful completion of a Medicaid Nurse Aide equivalent course and proof of active status on the Medicaid Nurse Aide Registry. Completion, with a grade of “C” or better, of BIO135, PSY110, COM181, ENG101, and CIT105 or OST 105 equivalent. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite Or Co-requisite: NIP 100 and NIP 102. Lecture: 7.0 credits (105 contact hours). Clinical: 3.0 credits (135 contact hours).  
Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical  
NIP 120(3)  Course ID: 005381  
Maternal Child Nursing Care  
Focuses on health promotion in the context of the family experiencing reproductive issues including pregnancy, labor and delivery, post-partum, and the newborn. Focuses on management of care for patients with perinatal complications and high-risk newborns. Integrates concepts of the NLN Education Competencies Model, Neuman’s Systems Model and the Maslow Hierarchy, including pharmacological and therapeutic interventions throughout the course. Pre-requisite: Completion with a grade of “C” or better in NIP 116, NIP 102 and AHS 100. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite Or Co-requisite: NIP 128. Lecture: 2.0 credits (30 contact hours). Clinical: 1.0 credit (45 contact hours).  
Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical  
NIP 128(10)  Course ID: 006842  
Medical Surgical Alteration  
Focuses on care of clients with stressors to normal lines of defense in hematology, immune, integumentary, fluid and electrolyte/acid/base imbalance, respiratory, musculoskeletal, cardiovascular, gastrointestinal/ hepatobiliary, renal/urinary, endocrine, reproductive, and neurological/sensory. Integrates the concepts of nursing practice: context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. Uses the Neuman Systems Model to provide care for clients by incorporating the core values of caring, diversity, excellence, integrity, ethics, holism, and patient-centeredness. Through clinical experience and theory application, examines the clients’ needs, health promotion, various treatment modalities, and nursing interventions. Pre-requisite: Completion with a grade of “C” or better in NIP 102. NIP 116; Student must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite Or Co-requisite: NIP 120. Lecture: 6.0 credits (90 contact hours). Lab/Clinical: 4.0 credits (180 contact hours).  
Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical
NIP 140(6) Course ID: 005435
Practical Nursing Role Transition
Prepares students to assume the role of graduate practical nurse. Promotes clinical judgment, delegation and collaboration in the provision of safe, ethical, holistic patient centered care. Explores healthcare management systems and employment seeking skills as students begin to develop a professional identity. Includes a clinical practicum in a health care facility utilizing the nursing process and evidence-based information in delivering clinically competent care. Prerequisite: Completion, with a grade of “C” or better in NIP 120, NIP 128. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Clinical: 2.0 credits (30 contact hours). Clinical: 4.0 credits (180 contact hours).
Components: Clinical, Lecture
Attributes: Course Also Offered in Modules, Technical

NIP 212(10) Course ID: 016095
Advanced Cardiac & Emergent Care
Focuses on administration of care for acute cardiovascular emergencies including cardiac arrest, acute myocardial infarction, and stroke. Prepares students to participate in emergency care of patients highlighting the importance of team dynamics and communication, systems of care, and immediate post-cardiac-arrest care. Educates students on airway management and related pharmacology. Students demonstrating essential knowledge and skills, obtaining 85% or greater on the written exam, and successfully completing the megacode will receive an American Heart Association ACLS provider card. Prerequisite: Completion with grade of “C” or better in NIP 211 and MAT 150. Students must have Basic Life Support certification. Co-require: NIP 215. Lecture: 0.5 credits (7.5 contact hours). Lab: 1.5 credits (67.5 contact hours).
Components: Lecture, Lab
Attributes: Technical

NMI 140(2) Course ID: 005714
Clinical Procedures I
Covers radionuclide skeletal system imaging techniques to demonstrate vascular, soft tissue and skeletal distribution. Includes radionuclide cardiovascular system imaging procedures for myocardial perfusion and viability, functional evaluation (equilibrium and first-pass methods) and deep vein thrombosis detection. Prerequisite: Admission to the NMMI program. Computer Literacy, [(MAT 150) and (BIO 137 and BIO 139)] or consent of instructor. Corequisite: CHE 140 and (PHY 171 or PHY 172) and NMI 141 and NMI 142 and NMI 150. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

NMI 141(2) Course ID: 005715
Physics and Instrumentation I
Introduces concepts and physical principles that govern radioactivity and the interactions of radiation with matter, the principles, operation and quality control for non-imaging, gas-filled detectors and non-imaging scintillation detectors; also the principles and applications of statistics as they relate to radiation detection and counting. Prerequisite: Admission to the NMMI program. Computer Literacy, [(MAT 150) and (BIO 137 and BIO 139)] or consent of instructor. Corequisite: CHE 140 and either PHY 171 or PHY 172. Laboratory, Lecture: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

NMI 142(1) Course ID: 005716
Radiation Biology and Protection
Covers interactions of ionizing radiation with human tissues, its potential effects, dosimetry and its relation to exposure. Covers radiation protection principles, applications and NRC regulations. Prerequisite: Admission to the NMMI program. Computer Literacy. [(MAT 150) and (BIO 137 and BIO 139)] or consent of instructor. Corequisite: (NMI 140 and NMI 141 and NMI 142) or consent of instructor. Prerequisite or Corequisite: CHE 140 and either PHY 171 or PHY 172. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

NMI 150(2) Course ID: 005717
Clinic I
Introduces concepts of clinical practice with application of knowledge and principles from previous general education course work and/or concurrent NMI courses. Will include actual clinical experience in an affiliated nuclear medicine clinical setting. Prerequisite: Admission to the NMMI program. Computer Literacy. [(MAT 150) and (BIO 137 and BIO 139)] or consent of instructor. Corequisite: (NMI 140 and NMI 141 and NMI 142) or consent of instructor. Prerequisite or Corequisite: CHE 140 and either PHY 171 or PHY 172. Lecture: 2.0 credits (30 contact hours).
Components: Clinical Attributes: Technical

NMI 160(2) Course ID: 005718
Clinical Procedures II
Covers imaging of organs and systems in relation to the abdomen and gastrointestinal tract in addition to imaging procedures and quantitative evaluation of the pulmonary system. Prerequisite: [(NMI 140 and NMI 141 and NMI 142 and NMI 150) with a grade of “C” or greater] or consent of instructor. Corequisite: NMI 161 and NMI 170. Prerequisite or Corequisite: CHE 150. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

NMI 161(2) Course ID: 005719
Physics and Instrumentation II
Includes use and quality control of the various types of systems used for scintillation imaging and computed tomography in hybrid imaging. Covers the configuration, function, and application of computers in nuclear medicine. Prerequisite: [(NMI 140 and NMI 141 and NMI 142 and NMI 150) with a grade of “C” or greater] or consent of instructor. Corequisite: NMI 160 and NMI 170. Prerequisite or Corequisite: CHE 150. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

NMI 170(2) Course ID: 005720
Clinic II
Continuation of NMI 150 Clinic I. Covers clinical practice with application knowledge and principles from previous general education course work and previous/concurrent NMI courses. Will include actual clinical experience in an approved nuclear medicine clinical setting. Prerequisite: [(NMI 140 and NMI 141 and NMI 142 and NMI 150) with a grade of “C” or greater] or consent of instructor. Corequisite: NMI 160 and NMI 161) or consent of instructor. Prerequisite or Corequisite: CHE 150. Clinical: 2.0 credits (180 contact hours).
Components: Clinical
Attributes: Technical

NMI 220(2) Course ID: 005721
Clinical III
Continuation of NMI 170 Clinic II. Covers application of knowledge and principles from previous general education course work and/or previous/concurrent NMI courses. Includes actual clinical experience in an affiliated nuclear medicine clinical setting. Prerequisite: [(NMI 160 and NMI 161 and NMI 170) with a grade of “C” or greater] or consent of instructor. Corequisite: NMI 230 or consent of instructor. Clinical: 2.0 credits (180 contact hours).
Components: Clinical
Attributes: Technical

NMI 230(2) Course ID: 005722
Radiopharmacy
Covers procurement, preparation, quality control, dispensing, patient dosage calculation, documentation, administration, disposal, storage, and safe handling of radioactive materials used by the nuclear medicine technologist. Includes commonly used pharmaceuticals in Nuclear Medicine, including dosages, side effects, contraindications, adverse reactions and antagonists. (CT contrast media administration.). Prerequisite: [(NMI 160 and NMI 161 and NMI 170) with a grade of “C” or greater] or consent of instructor. Corequisite: NMI 220 or consent of instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical
NMI 240(4) Clinical Procedures III
Covers imaging procedures of the urinary system, central nervous system and endocrine systems including appropriate interventions & challenge procedures. Prerequisite: [NMI 220 and NMI 230] with a grade of "C" or greater] or consent of instructor. Corequisite: NMI 260 or consent of instructor. Lecture: 4.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

NMI 250(4) Clinical Procedures IV
Covers oncologic imaging procedures, inflammatory/ infectious process imaging procedures, radionuclide therapy procedures, non-imaging procedures related to hematology and vitamin B-12 absorption / excretion and pediatric imaging. Prerequisite: [NMI 240 and NMI 260] with a grade of "C" or greater] or consent of instructor. Co-requisite: NMI 270 or consent of instructor. Lecture: 4.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

NMI 260(4) Clinic IV
Continuation of NMI 220 Clinic III; Covers application of knowledge and principles from previous general education course work and/or previous/concurrent NMI courses. Includes actual clinical experience in an affiliated nuclear medicine clinical setting. Prerequisite: [NMI 240 and NMI 260] with a grade of "C" or greater] or consent of instructor. Co-requisite: NMI 240 or consent of instructor. Clinical: 4.0 credits (360 contact hours).

Components: Clinical Attributes: Technical

NMI 270(4) Clinic V
Continuation of NMI 260 Clinic IV; Covers application of knowledge and principles from previous general education course work and/or previous/concurrent NMI courses. Includes actual clinical experience in an approved nuclear medicine clinical setting. Pre-requisite: [NMI 240 and NMI 260] with a grade of "C" or greater] or consent of instructor. Co-requisite: NMI 250 or consent of instructor. Clinical: 4.0 credits (360 contact hours).

Components: Clinical Attributes: Technical

NPN 101(6) Nursing Fundamentals
Provides a historical overview of health care system and roles and responsibilities of members of the health care team. Emphasizes practical nursing and the nursing process in the context of Gordon's Functional Health Patterns and Maslow's hierarchy of needs as related to client daily living across the life span. Covers fundamental nursing skills including therapeutic communication techniques; nursing assessment; nursing process and care planning; charting; legal and ethical parameters of health care; rest and sleep; and body mechanics. Prerequisite: Admission to the Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program and [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Prerequisite or Corequisite: [BIOL 135 or BIOL 139] and (AHS 100 or PSY 223) with a minimum grade of C in each course]. Corequisite: NPN 115 or (AHS 120 or CFA 131) or (AHS 100 or CLA 131) with a minimum grade of C in each course]. Lecture: 2 credits (30 contact hours). Lab: 2 credits (30 contact hours).

Components: Lecture, Laboratory Attributes: Technical

NPN 105(6) Development of Care Giver Role
Introduces nursing and the nursing process as related to client activities of daily living across the life span. Provides an opportunity to develop and practice psychomotor skills related to health assessment, promotion, maintenance, and illness prevention. Prerequisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program and [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Prerequisite or Corequisite: [BIOL 135 or BIOL 139] and (AHS 100 or PSY 223) with a minimum grade of C in each course]. Consent of PN Coordinator. Lecture: 3.0 credits (35 contact hours). Lab: 3 credits (45:1 ratio/135 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NPN 106(6) Fundamentals of Nursing Care
Provides a historical overview of the health care system and roles and responsibilities of members of the health care team. Emphasizes practical nursing and the nursing process in the context of Functional Health Patterns as related to client daily living across the life span. Covers fundamental nursing skills including therapeutic communication techniques; nursing assessment; nursing process and care planning; charting; legal and ethical parameters of health care; rest and sleep; and body mechanics and introductory content on the surgical experience. Prerequisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program and [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Prerequisite or Corequisite: [BIOL 135 or BIOL 139] and (AHS 100 or PSY 223) with a minimum grade of C in each course]. Lecture: 4 credits (60 contact hours). Lab: 2 credits (90 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NPN 108(3) Pharmacology in Nursing
Introduces dosage calculations and medication administration of commonly used medications. Includes an overview of common drugs, drug classifications, and effects administered in the following modes: oral, sublingual, rectal, topical, intradermal, intramuscular, subcutaneous, intravenous including IV fluid administration skills. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Prerequisite: Admission to the Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program and [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Prerequisite or Corequisite: [PATH 2: NPN 101 and (BIOL 135 or BIOL 139) and (AHS 115 or AHS 120 or CLA 131 or OST 103) and (AHS 100 or PSY 223)]. If taken as pre-requisite must complete with a "C" or better. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (90 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NPN 111(3) Pharmacology
Introduces dosage calculations and medication administration of commonly used medications. Includes an overview of common drugs, drug classifications, and effects administered in the following modes: oral, sublingual, rectal, topical, intradermal, intramuscular, subcutaneous, intravenous including IV fluid administration skills. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Prerequisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program and [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Prerequisite or Corequisite: [PATH 2: NPN 101 and (BIOL 135 or BIOL 139) and (AHS 115 or AHS 120 or CLA 131 or OST 103) and (AHS 100 or PSY 223)]. If taken as pre-requisite must complete with a "C" or better. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (90 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Technical

NPN 115(6) Practical Nursing Bridge Course
Provides overview of the health care system and roles and responsibilities of the health care team. Emphasizes the nursing process in the context of Gordon's Functional Health Patterns and Maslow's hierarchy of needs as related to client daily living across the life span. Covers fundamental nursing skills including therapeutic communication techniques, nursing assessment, and the nursing process. Introduces dosage calculations and administration of medications. Includes an overview of common drugs, drug classifications, and effects of drugs administered in all modes. Emphasizes nursing responsibility, accountability, and application of the nursing process to drug therapy. Upon successful completion of all components of the course, the student will be admitted to NPN 135 and will have earned advanced standing hours, dependent upon curriculum option. Prerequisite: Admission to the Practical Nursing program AND (NAA 115 or equivalent) AND (BIOL 135 or BIOL 139) AND (ENG 101 or COM 181 or COM 252 or TEC 200) AND (CLA 131 or AHS 120 or OST 103) AND Digital Literacy with a minimum grade of C in each prerequisite course. Pre-requisite or Co-requisite: [AHS 100 or PSY 223] with a minimum grade of "C". Lecture: 3.0 credits (45 contact hours). Laboratory: 3.0 credits (15 contact hours).

Components: Laboratory, Lecture Attributes: Technical
NPN 125(3) Course ID: 004025
Mental Health
Applies nursing process to clients experiencing common mental health problems with emphasis on assisting clients to cope with psychological problems throughout the life span - i.e., childhood, dependency, violence and other stress and developmental problems related to mental health. Prerequisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110) and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) or Consent of PN Coordinator. Minimum C grade.
Prerequisite or Corequisite: Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 115 or OST 103 or CLA 131). Minimum C grade.) Pathway 3: (NPN 106 and NPN 108 and BIO 136 and PSY 223) Minimum C grade. Lecture: 2.0 credits (30 contact hours). Lab/Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 130(3) Course ID: 004026
Pharmacology II
Studies common drugs by classification and effects with emphasis on responsibility, accountability, and application of the nursing process to drug therapy. Prerequisite: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) or Consent of PN Coordinator). Minimum C grade. Lecture: 2.0 credits (30 contact hours). Lab/Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NPN 135(6) Course ID: 004027
Introduction to Health Deviation
Introduces application of the nursing process for selected child/adult clients experiencing common health deviations interfering with activities of daily living. Emphasis in on the nurse as the provider of care. Prerequisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223)) or Consent of PN Coordinator. Minimum C grade. Lecture: 2.0 credits (30 contact hours). Lab/Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 200(5) Course ID: 004028
Med Surg I
Applies nursing process to selected child/adult clients experiencing common health deviations interfering with activities of daily living with emphasis on the nurse as the provider of care. Prerequisite: NPN 125 and NPN 130 and NPN 135 and NPN 201 or Consent of PN Coordinator. Minimum C grade. Lecture: 3 credits (45 contact hours). Lab/Clinical: 2 credits (90 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NPN 201(3) Course ID: 004024
Child Bearing Family
Applies nursing process to childbearing families with focus on health promotion and common health alterations in the reproductive process. Prerequisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223)) or Consent of PN Coordinator. Minimum C grade. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 202(6) Course ID: 005729
Med-Surg I Alterations
Applies nursing process to selected child/adult clients experiencing common health deviations related to metabolic dysfunctions, fluid and electrolyte imbalances, cardiovascular dysfunctions, and cellular deviations that interfere with activities of daily living with emphasis on the nurse as the provider of care. Prerequisite: (NPN 101 and NPN 111) and (BIO 135 or BIO 139) and (AHS 115 or AHS 120 or CLA 131 or OST 103). Minimum C grade. Prerequisite or corequisite: NPN 135. Minimum C grade. Lab/Clinical: Lecture: 6 credits (150 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 205(5) Course ID: 004029
Med Surg II
Applies the nursing process to child/adult clients experiencing complex health alterations. The focus is on multi-system failure, fluid and electrolytes, neurological problems, and cellular deviation. Prerequisite: NPN 200. All courses must be achieved with a grade of "C" or higher. Lecture: 3.0 credits (45 contact hours); Lab/Clinical: 2.0 credits (90 contact hours/45 ratio).
Components: Clinical, Laboratory, Lecture Attributes: Technical

NPN 206(6) Course ID: 005730
Med-Surg II Alterations
Applies nursing process to selected child/adult clients experiencing complex health issues related to multi-system failure, neurological disorders, coordination dysfunctions, and elimination problems that interfere with activities of daily living with emphasis on the nurse as the provider of care. Prerequisite: (NPN 202 with a grade of "C" or greater) or Consent of PN Coordinator. Prerequisite or corequisite: NPN 201. If prerequisite, a grade of "C" or greater must be achieved. Lab/Clinical: Lecture: 6 credits (150 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 210(4) Course ID: 004030
Clinical Practicum
Integrates the theoretical concepts learned throughout the program in application of this knowledge during the direct care of clients. Promotes critical thinking and problem solving skills during the nursing role performances of provider of care, manager of care, and member within the discipline. Prerequisite: Pathway 1: NPN 205. Minimum C grade. Lecture: 2.0 credits (30 contact hours). Pre-requisite Or Co-requisite: Pathway 3: (NPN 208 and NPN 215) or Consent of PN Coordinator. Minimum "C" grade. Lecture: 1.0 credit (15 contact hours); Practicum: 3.0 credits (45/1 ratio/135 contact hours).
Components: Lecture, Practicum
Attributes: Course Also Offered in Modules, Technical

NPN 215(1) Course ID: 004125
Nursing Trends & Issues
Prepares the student for the role of the practical nurse. Prerequisite: Pathway 1: NPN 125 and NPN 130 and NPN 135 and NPN 201. Minimum "C" grade. Lecture: 2 credits (30 contact hours). Clinical: 0.5 credits (22.5 contact hours).
Components: Clinical, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 1011(0.5) Course ID: 006270
Roles & Professionalism
Provides a historical overview of health care system and roles and responsibilities of members of the health care team. Covers fundamental nursing skills including therapeutic communication, interpersonal and ethical parameters of health care, cultural aspects of care, and professionalism. Prerequisite: Admission into the KCTCS Online Practical Nursing Program requires minimum grade of C in (BIO 137 & BIO 139) and (AHS 115 or CLA 131 or AHS 120 or OST 103) and (PSY100 or PSY110). Lab: 0.5 credits (22.5 contact hours).
Components: Laboratory, Lecture

NPN 1012(1.5) Course ID: 005700
Nursing Process
Presents the nursing process and the development of the patient plan of care. Prerequisite: NPN 1061, Minimum C grade. Prerequisite or Corequisite: (BIO 139 and PSY 223) or Consent of PN Coordinator. Minimum C grade. Lecture: 1 credit (15 contact hours). Lab: 0.5 credits (7.5 contact hours).
Components: Lecture, Laboratory

NPN 1013(1) Course ID: 006272
Basic Human Needs
Emphasizes practical nursing and the nursing process in the context of Gordon’s Functional Health Patterns and Maslow’s hierarchy of needs as related to client daily living across the life span. Covers fundamental nursing skills including nursing assessment; nursing process and care planning, charting; legal and ethical parameters of health care; rest and sleep; and body mechanics. Prerequisite: NPN 1011 with a C or better. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

NPN 1014(0.5) Course ID: 006273
Nursing Fundamentals Lab
Emphasizes practical nursing and the nursing process in the context of Gordon’s Functional Health Patterns and Maslow’s hierarchy of needs as related to client daily living across the life span. Includes the application of knowledge and skills in a lab setting. Prerequisite: NPN 1011 Completion with a C or better. Prerequisite or corequisite: NPN 1012 and NPN 1013 and NPN 1014 (Pre-requisites must be completed with a C or better). Laboratory: 1 credit (45 contact hours).
Components: Laboratory

NPN 1061(1) Course ID: 005699
PN Role in Health Care Delivery
Presents an introduction to the role of the Practical Nurse with emphasis on legal, ethical, and cultural components. Reflects Gordon’s Functional Health Patterns across the lifespan, therapeutic communication, and the importance of life-long learning. Prerequisite: Current CPR card for Health Care Providers; Current certification must be maintained throughout the program. Successful completion of a Medicaid Nurse Aide equivalent course within the past three (3) years or proof of active status on the Medicaid Nurse Aide Registry. Admission into the Practical Nursing Program. (ENG 101 and MT 110 and (AHS 115 or CLA 131)). Minimum C grade. Prerequisite or Corequisite: BIO 139 and PSY 223. Must achieve a C or higher in each prerequisite course. Lecture: 0.75 credits (11.25 contact hours); Lab: 0.25 credits (11.25 contact hours).
Components: Laboratory, Lecture

NPN 1062(1.5) Course ID: 005700
Nursing Process
Presents the nursing process and the development of the patient plan of care. Prerequisite: NPN 1061, Minimum C grade. Prerequisite or Corequisite: (BIO 139 and PSY 223) or Consent of PN Coordinator. Minimum C grade. Lecture: 1 credit (15 contact hours). Lab: 0.5 credits (22.5 contact hours).
Components: Lecture, Laboratory
NPN 1063(1.5) Course ID: 005701
Health Assessment
Presents health assessment and a lab component of various skills that must be successfully completed prior to the student's caring for patients in the clinical arena (versus simulated patients). Prerequisite: NPN 1062 Minimum C grade. Prerequisite or Corequisite: BIO 139 and PSY 223. Minimum C grade. Lecture: 1 credit (15 contact hours). Lab: 0.25 credits (11.25 contact hours). Clinical: 0.25 credits (11.25 contact hours).
Components: Clinical, Laboratory, Lecture
NPN 1064(2) Course ID: 005702
Care of the Client Undergoing Surgical Intervention
Presents the patient undergoing surgical intervention and the related lab/clinical components. Prerequisite: NPN 1063. Minimum C grade. Prerequisite or Corequisite: BIO 139 and PSY 223. Minimum C grade. Lecture: 1.25 credits (18.75 contact hours). Lab: 0.25 credits (11.25 contact hours). Clinical: 0.5 credits (22.5 contact hours).
Components: Clinical, Laboratory, Lecture
NPN 1081(0.5) Course ID: 005703
Overview of Pharmacology
Presents an overview of pharmacology and the legal and ethical implications for nursing practice. Prerequisite: Admission to program. Current CPR card for Health Care Providers or Red Cross Professional Rescuer; current certification must be maintained throughout the program. Successful completion of a Medicaid Nurse Aide equivalent course within the past three (3) years or proof of active status on the State Nurse Aide Registry (SRNA). MT 110 or higher math and (AHS 115 or CLA 131) and ENG 101. Minimum C grade. Corequisite or Prerequisite: BIO 139 and PSY 223. Must achieve a C or greater in each course. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
NPN 1082(1,1.5) Course ID: 005704
Medication Administration
Presents a discussion of various drug categories and the procedures for correct administration via various routes. Prerequisite: NPN 1081. Minimum C grade Corequisite or Prerequisite: BIO 139 and PSY 223. Minimum C grade. Lecture: 0.75 credits (11.25 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture
NPN 1083(1.35) Course ID: 005733
Parenteral Medication Administration
Presents the concepts and responsibilities of the nurse during intravenous therapy. Prerequisite: NPN 1082. Minimum C grade. Prerequisite or corequisite: BIO 139 and PSY 223 Minimum C grade. Laboratory: 1.35 credits (38.25 contact hours)
Components: Laboratory, Lecture
NPN 1111(1) Course ID: 006276
Intro to Pharmacology
Provides an overview of pharmacological principles, introducing drug classifications, drug interactions and common drugs, as well as effects of medications. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Prerequisite: NPN 1011 Completion with a C or better. Lecture: 1 credit (15 contact hours).
Components: Lecture
NPN 1112(1) Course ID: 006277
Medication Administration
Focuses on the role of the practical nurse in regard to medication administration utilizing oral, enteral, sublingual, buccal, rectal, topical, transdermal, intradermal, intramuscular, and subcutaneous routes. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Prerequisite: NPN 1111. Completion with a C or better. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
NPN 1113(1) Course ID: 006278
Intravenous Therapy
Focuses on the role of the practical nurse in regard to medication administration utilizing the oral, enteral, sublingual, buccal, rectal, topical, transdermal, intradermal, intramuscular, and subcutaneous routes. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Prerequisite: NPN 1112 Completion with a C or better. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
NPN 1251(0.75) Course ID: 005705
Intro to Psychiatric-Mental Health Nursing
Presents the introduction to psychiatric-mental health nursing and the nurse's role in multidisciplinary care. Prerequisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) with a minimum grade of "C" in each course) or Consent of PN Coordinator. Prerequisite or corequisite: Pathway 2: ((NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 115 or OST 103 or CLA 131) with a minimum grade of "C" in each course) or Consent of PN Coordinator. Pathway 3: (NPN 106 and NPN 108 and BIO 139 and PSY 223) with a minimum grade of "C" in each course) or Consent of PN Coordinator. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.25 credits (11.25 contact hours).
Components: Clinical, Lecture
NPN 1252(0.75) Course ID: 005706
Components of the Nurse-Client Relationship
Presents the aspects of therapeutic communication and the nurse's role in multidisciplinary care. Prerequisite: ALL Pathways: NPN 1251. Minimum C grade. Corequisite or Prerequisite: Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of "C" in each course. Pathway 3: (NPN 106 and NPN 108 and BIO 139 and PSY 223) with a minimum grade of "C" in each course. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.25 credits (11.25 contact hours).
Components: Clinical, Lecture
NPN 1253(0.75) Course ID: 005707
Clients with Psychiatric Disorders
Presents the disorders specific to adult issues of interference with coping/stress tolerance and the nurse's role in multidisciplinary care. Prerequisite: ALL Pathways: NPN 1252. Minimum C grade. Corequisite or Prerequisite: Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of "C" in each course. Pathway 3: (NPN 106 and NPN 108 and BIO 139 and PSY 223) with a minimum grade of "C" in each course. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.25 credits (11.25 contact hours).
Components: Clinical, Lecture
NPN 1254(0.75) Course ID: 005708
Special Populations with Psychiatric Disorders
Presents content specific to special populations such as of infants, children and adolescents, the issue of abuse and neglect of children and elders, and the nurse's role in multidisciplinary care. Prerequisite: ALL Pathways: NPN 1253. Minimum C grade. Prerequisite or corequisite: Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of "C" in each course. Pathway 3: (NPN 106 and NPN 108 and BIO 139 and PSY 223) with a minimum grade of "C" in each course. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.25 credits (11.25 contact hours).
Components: Clinical, Lecture
NPN 1256(1) Course ID: 006280
Therapeutic Modalities and Plan of Care
Applies the nursing process to clients experiencing common mental health problems with emphasis on assisting clients to cope with psychological problems throughout the life span. Focuses on abnormal aspects of mental health. Prerequisite: NPN 1255 Completion with a C or better. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Fluid/Electrolyte Balance Care
Course ID: 005760
Provides content on fluid and electrolyte balance and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 108 and NPN 109 and BIO 139 and PSY 223 with a minimum grade of C in each course. Prerequisite or corequisite: (NPN 125 and NPN 201), Minimum C grade. Lecture: 0.5 credits (7.5 contact hours), Laboratory: 0.125 credits (5.625 contact hours), Clinical: 0.125 credits (5.625 contact hours).
Components: Clinical, Laboratory, Lecture

Cardio-Respiratory Function Care
Course ID: 005761
Provides content on cardiovascular and respiratory function, and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 1401 Minimum C grade. Prerequisite or corequisite: (NPN 201 and NPN 125) Minimum C grade. Lecture: 0.5 credits (7.5 contact hours), Laboratory: 0.125 credits (5.625 contact hours), Clinical: 0.125 credits (5.625 contact hours).
Components: Clinical, Laboratory, Lecture

Nutrition and Activity/Exercise Functions Across the Lifespan
Course ID: 005763
Provides content on alterations in nutrition and activity/exercise, the administration of medications to children, and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 1402 Minimum C grade. Prerequisite or corequisite: NPN 201 and NPN 125, Minimum C grade. Lecture: 0.5 credits (7.5 contact hours), Laboratory: 0.125 credits (5.625 contact hours), Clinical: 0.125 credits (5.625 contact hours).
Components: Clinical, Laboratory, Lecture

Surgical Intervention Care
Course ID: 005764
Provides content on the adult/child patient experiencing surgical intervention, and the role of the practical nurse in planning appropriate care. Prerequisite: NPN 1403 Minimum C grade. Prerequisite or corequisite: NPN 201 and NPN 125. Minimum C grade. Lecture: 0.5 credits (7.5 contact hours), Laboratory: 0.125 credits (5.625 contact hours), Clinical: 0.125 credits (5.625 contact hours).
Components: Clinical, Laboratory, Lecture

Ante-Partial Phase Care
Course ID: 005770
Provides content on prenatal assessment and the role of the practical nurse in planning appropriate interventions. Prerequisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110) and (BIO 135 or BIO 139) and (AHS 100 or PSY 223)) with a minimum grade of "C" in each course. Prerequisite: Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223)) with a minimum grade of "C" in each course. Prerequisite or corequisite: Pathway 2: (NPN 202 and (AHS 120 or BIO 115 or OST 103 or CLA 131)) with a minimum grade of "C" in each course. Lecture: 0.5 credits (7.5 contact hours), Clinical: 0.125 credits (5.625 contact hours), Laboratory: 0.125 (5.625 contact hours).
Components: Clinical, Laboratory, Lecture

Intra-Partial Phase Care
Course ID: 005771
Provides content on intra-partial assessment and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2011 Minimum C grade. Prerequisite or corequisite: Pathway 2: (NPN 202 and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of "C" in each course. Lecture: 0.5 credits (7.5 contact hours), Clinical: 0.125 (5.625 contact hours), Laboratory: 0.125 (5.625 contact hours).
Components: Clinical, Laboratory, Lecture

Post-Partial: Maternal Phase Care
Course ID: 005772
Provides content on post-partial assessment and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2012 with minimum C grade. Prerequisite or corequisite: Pathway 2: (NPN 202 and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of "C" in each course. Lecture: 0.5 credits (7.5 contact hours), Clinical: 0.125 (5.625 contact hours), Laboratory: 0.125 (5.625 contact hours).
Components: Clinical, Laboratory, Lecture

Alterations in Perfusion
Course ID: 005773
Presents content on perfusion and the role of the practical nurse in planning those interventions. Prerequisite: NPN 2013 Minimum C grade. Prerequisite or corequisite: Pathway 2 (NPN 202 and (AHS 120 or AHS 115 or OST 131 or CLA 131)) with a minimum grade of "C" in each course. Lecture: 0.5 credits (7.5 contact hours), Clinical: 0.125 (5.625 contact hours).
Components: Clinical, Laboratory, Lecture

Perfusion & Cell Deviation Clinicals
Course ID: 005774
Demonstrates the knowledge gained in NPN2024 and NPN2025 in providing care for clients with alterations in metabolism, fluid, and electrolyte imbalances. Prerequisite: NPN 2026 and NPN 1407 with a "C" or better. Laboratory or Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory

Alterations in Coordination
Course ID: 005629
Applies nursing process to selected child/adult clients experiencing common health deviations related to coordination dysfunction that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 2026. Completion with a "C" or better. Lecture: 1.0 credit (45 contact hours).
Components: Lecture

Fluid and Electrolytes
Course ID: 006298
Applies nursing process to selected child/adult clients experiencing common health deviations related to electrolyte imbalance that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 2064 Completion with a "C" or better. Lecture: 1.5 credit (22.5 contact hours).
Components: Lecture

Neuro/Coordination Clinical
Course ID: 006301
Applies nursing process to selected child/adult clients experiencing common health deviations related to coordination dysfunction that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 2064. Completion with a "C" or better. Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory

Elimination Alterations
Course ID: 006302
Applies nursing process to selected child/adult clients experiencing common health deviations related to elimination dysfunction that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 2063 Completion with a "C" or better. Lecture: 1 credit (15 contact hours).
Components: Lecture

Multi System Failure
Course ID: 006303
Applies nursing process to selected child/adult clients experiencing common health deviations related to multi-system failure that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 2064 Completion with a "C" or better. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

Neurological Function Care
Course ID: 005765
Provides content on alterations in neurological function and the role of the practical nurse in planning appropriate interventions. Prerequisite: (NPN 125 and NPN 201), Minimum C grade. Corequisite: NPN 210 and NPN 215. Lecture: 1.2 credits (18 contact hours), Clinical: 0.8 credits (36 contact hours).
Components: Clinical, Lecture
NPN 2082(2) Course ID: 005766

Coordinated/Special Senses/Integumentary Function

Presents content on patients with alterations in coordination, special senses, and integumentary function, and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2081 with a grade of “C” or greater. Corequisite: NPN 210 and NPN 215. Lecture: 1.2 credits (18 contact hours), Clinical: 0.8 credits (36 contact hours).

Components: Clinical, Lecture

NPN 2083(2) Course ID: 005767

Cardiovascular Function Care

Presents content on the patient with alterations in cardiovascular function and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2082 with a grade of “C” or greater. Corequisite: NPN 210 and NPN 215. Lecture: 1.2 credits (18 contact hours), Clinical: 0.8 credits (36 contact hours).

Components: Clinical, Lecture

NPN 2084(2) Course ID: 005768

Metabolism & Elimination Care

Presents content on the patient with alterations in metabolism and elimination and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2083 with a grade of “C” or greater. Corequisite: NPN 210 and NPN 215. Lecture: 1.2 credits (18 contact hours), Clinical: 0.8 credits (36 contact hours).

Components: Clinical, Lecture

NPN 2085(2) Course ID: 005769

Cell Function/Multi-System Failure Care

Presents content on alterations in cellular deviation and multi-system organ failure, and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2084 with a grade of “C” or greater. Corequisite: NPN 210 and 215. Lecture: 1.2 credits (18 contact hours), Clinical: 0.8 (36 contact hours).

Components: Clinical, Lecture

NPN 2101(1) Course ID: 005774

Theoretical Concepts of Clinical Practicum

Presents concepts of legal nursing practice that will be implemented in the NPN 2102 practicum experience. Prerequisite: Pathway 1: NPN 205. Minimum “C” grade Pathway 2: NPN 206. Minimum “C” grade. Prerequisite or corequisite: Pathway 3: (NPN 208 and NPN 215) with a minimum grade of “C” in each course or Consent of PN Coordinator. Practicum: 3.0 credits (135 contact hours).

Components: Practicum

NPN 2115(0.5) Course ID: 005776

Leadership and Management as a Professional Concept

Presents content on leadership, management, and regulatory issues for the role of practical nurse. Prerequisite: Pathway 1: (NPN 125 and NPN 130 and NPN 135 and NPN 201) with a minimum grade of “C” in each course. Pathway 2: (NPN 125 and NPN 135) with a minimum grade of “C” in each course. Pathway 3: (NPN 125 and NPN 210) with a minimum grade of “C” or “C”. Prerequisite or corequisite: Pathway 2: (NPN 201 and NPN 202 and NPN 206 and NPN 210) with a minimum grade of “C” in each course. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

NPN 2152(0.5) Course ID: 005777

Role Transition from Student to Graduate Practice

Prepares the student to transition to a career in practical nursing. Prerequisite: NPN 2151. Prerequisite or corequisite: Pathway 2: (NPN 201 and NPN 202 and NPN 206 and NPN 210) with a minimum grade of “C” in each course. Pathway 3: (NPN 208 and NPN 210) with a minimum grade of “C” in each course. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

NRS 100(2) Course ID: 006616

Enhancing Nursing Student Success

Enhances the probability of students being successful in a nursing program by fostering critical thinking skills and practice taking NCLEX-style examinations. Focuses on understanding the role of a nursing student. Addresses stress and time management as contributors to nursing student success. Pre-requisite: Active status on Kentucky Medicaid Nurse Aide Registry or its equivalent. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

NRS 101(9) Course ID: 004332

Nursing Care I

Establishes the foundation for competency based nursing practice by introducing beginning concepts and skills that are built upon the nursing curriculum. Introduces the four roles of nursing practice including human flourishing, human judgment, professional identity, and spirit of inquiry. Applies problem-solving and critical thinking skills in the care of clients across the life span and of diverse cultures with actual or the potential for health alterations due to common acute and chronic health problems. Includes the application of the nursing process to meet the needs of patients at the practical nursing level. Pre-requisite: Admission to the Nursing Program; Proof of active status on Kentucky Medicaid Nurse Aide Registry or its equivalent, and computer literacy; (BIO 137 and MAT 150 or higher with a grade of “C” or better); PSY 110. Pre-requisite Or Co-requisite: (BIO 139 with a grade of “C” or better) and PSY 223. Lecture: 9.0 credit hours (255 clinical hours).

Components: Clinical, Lecture Attributes: Technical

NRS 102(10) Course ID: 004333

Nursing Care II

Includes the application of problem-solving and critical thinking skills in the care of clients across the lifespan and of diverse cultures with actual or the potential for alterations in health due to common acute and chronic health problems. Provides care of clients during the childbearing cycle focusing on common health alterations across the lifespan with actual or potential alterations in health due to complex acute and chronic health problems. Includes an integrated clinical practicum of direct patient care in a health care facility or health care organization to facilitate the transition from student role to RN practice. Pre-requisite: NRS 203 and (BIO 227 or BIO 225) with a grade of “C” or better. Pre-requisite Or Co-requisite: Prior to or concurrent Heritage/Humanities. Lecture: 10.0 credits (270 clinical hours).

Components: Clinical, Lecture Attributes: Technical

NSG 100(3) Course ID: 005269

Preparation for Nursing

Explores careers in the nursing profession. Includes career options and educational pathways, goal setting and self-awareness, tools/strategies for success in nursing programs, and trends impacting nursing’s future. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

NSG 101(9) Course ID: 000568

Nursing Practice I

Covers nursing practice using functional health patterns within the context of the contemporary health care delivery system. Emphasizes foundation knowledge of nursing practice, skills acquisition, and the care of patients with health perception-health management, value-belief, and rest-sleep dysfunctional health patterns. Pre-requisite: Admission to the Associate Degree Nursing program, (BIO 137 and MAT 150 or higher with a grade of “C” or better). PSY 110, 75 hour nursing assistant course or its equivalent, and Computer Literacy. Pre-requisite Or Co-requisite: BIO 139 with a grade of “C” or better and PSY 223. Lecture: 5.0 credits (75 contact hours). Clinical: 4.0 credits (180 contact hours).

Components: Clinical, Laboratory Lecture Attributes: Technical
Nursing One
Introduces and applies Gordon's Functional Health Patterns (FHP) within the context of the contemporary health care system. Emphasizes foundation knowledge of nursing practice, skills acquisition, and care of clients with risk for or actual common chronic health pattern dysfunctions. Pre-requisite: Admission to Associate Degree Nursing Program, BIO 137 (within ten years) with a grade of "C" or better, MAT 150 with a grade of "C" or better, and PSY 110. Pre-requisite Or Co-requisite: BIO 139 with a grade of "C" or better (within 10 years) and ENG 101 Lecture: 5.0 credits (75 contact hours). Clinical: 4.0 credits (180 contact hours). Components: Clinical, Lecture Attributes: Technical

Nursing LPN Bridge Course
Builds upon the LVN/LPN experiences in application of core components of nursing practice. Focuses on the nursing care for the patient with mental health dysfunctions and the patient experiencing acute and/or chronic health pattern dysfunctions. Covers selected content and skills from Nursing One and Nursing Two. Includes the role of the Associate Degree Nurse and application of the core components of nursing practice to patient's experience. Pre-requisite: Admission to Associate Degree Nursing Program, BIO 137 and BIO 139 (within ten years) with a grade of "C" or better, MAT 150 with a grade of "C" or better, or better, PSY 110 and ENG 101. Co-requisite: NSG 216. Pre-requisite Or Co-requisite: PSY 223 and Oral Communications Course. Clinical: 1.0 credit (45 contact hours). Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

Transition to ADN
Builds upon the basic nursing skills and concepts learned in the LVN/LPN experience. Assists the Practical Nurse to make the beginning transition to the RN role. Includes the role of the Associate Degree Nurse and application of the course components of nursing practice to patients experiencing the dysfunctional health patterns of nutritional-metabolic and elimination. Upon successful completion of all components of the course, the student will be admitted to NSG 220 and will have earned by advanced standing, 15 credit hours in nursing. Pre-requisite: Admission to the Associate Degree Nursing Program and (BIO 137, BIO 139, and MAT 150 or higher with a grade of "C" or better), PSY 110, PSY 223, ENG 101, Oral Communications, Digital Literacy. Pre-requisite Or Co-requisite: NSG 215 and NSG 212 with a grade of "C" or better. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credit (22.5 contact hours). Components: Clinical, Lecture Attributes: Technical

Accelerated Transition: PN-A.D.N Bridge
Admission to the Associate Degree Nursing Program and (BIO 137, BIO 139, and MAT 150 or higher with a grade of "C" or better), PSY 110, PSY 223, ENG 101, Oral Communications, Digital Literacy and a passing score on a national normed PN to RN mobility examination. Pre-requisite: Admission to the Associate Degree Nursing Program and (BIO 137 and BIO 139 and (MAT 110 or MAT 150 or higher) with a grade of "C" or better), PSY 110, PSY 223, ENG 101, Oral Communications, Computer Literacy and a passing score on a national normed PN to RN mobility examination. Co-requisite: NSG 215 and NSG 212. Lecture: 1.5 credit (22.5 contact hours) Laboratory: 0.5 credit (22.5 contact hours). Components: Laboratory, Lecture Attributes: Technical

Nursing LPN to ADN Bridge
This course will build upon the basic nursing skills and concepts learned in the LVN/LPN experience. The course is designed to assist the Practical Nurse to make the beginning transition to the RN role. Areas of study include the role of the Associate Degree Nurse and application of the core components of nursing practice to patients experiencing the dysfunctional health patterns of perception-health management, value-belief, rest-sleep, activity-exercise and nutritional-metabolic. Upon successful completion of all components of the course, the student will be admitted to NSG 215 and will have earned by advanced standing, 18 credit hours in nursing. Lecture: 4 hours, Laboratory: 3 hours. Pre-requisite: BIO 137, BIO 139, MAT 150 or higher with a grade of "C" or better, PSY 110, ENG 101, and Computer Literacy. Components: Clinical, Laboratory, Lecture Attributes: Technical

Pharmacology in Nursing
This is an elective course which studies common drugs, their classification, and their effects on functional and dysfunctional health patterns. Areas of emphasis include nursing responsibility, accountability, and application of the nursing process regarding drug therapy. Lecture: 3 hours (45 contact hours). Components: Lecture Attributes: Technical

Nursing One
Course ID: 006179

Nursing LPN Bridge Course
Course ID: 006180

Nursing Two
Includes the application of core components of nursing to clients experiencing alterations in health. Focuses on nursing care for the client with mental health dysfunctions and the client experiencing acute and/or chronic health pattern dysfunctions. Co-requisite: NSG 216. Pre-requisite Or Co-requisite: PSY 223 and Oral Communications course. Lecture: 5 credits (75 contact hours). Laboratory/Clinical: 4 credits (180 contact hours, 45:1 ratio). Components: Clinical, Laboratory, Lecture Attributes: Technical

Medical Surgical Nursing I
Focuses on the application of the core components of nursing to adult patients experiencing dysfunctional health patterns. Emphasizes the care of patients with nutritional-metabolic and elimination dysfunctional health patterns. Prerequisite: (NSG 101 and BIO 139) with a grade of "C" or better and PSY 223. Co-requisite or corequisite: (NSG 212 and NSG 215) with a grade of "C" or better, ENG 101 and Oral Communications. Lecture: 3.0 credits (45 contact hours). Components: Clinical, Laboratory, Lecture Attributes: Technical

Maternal Newborn Nursing
Focuses on the application of the core components of nursing to care of childbearing families experiencing common health patterns. Emphasizes the care of patients with nutritional-metabolic and elimination dysfunctional health patterns. Prerequisite: (NSG 101 and BIO 139) with a grade of "C" or better and PSY 223. Co-requisite or corequisite: NSG 220 with a grade of "C" or higher, ENG 102 and BIO 225. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (15 contact hours). Components: Clinical, Laboratory, Lecture Attributes: Technical

Behavioral Health Nursing
Focuses on the application of the nursing care to patients experiencing a dysfunctional health pattern. Emphasizes the care of patients with Coping-Stress-Tolerance and Altered Role-Relationship health patterns. Prerequisite: (NSG 101 and BIO 139) with a grade of "C" or higher and PSY 223. Co-requisite or corequisite: (NSG 210 and NSG 215) with a grade of "C" or higher, ENG 101 and Oral Communications. Lecture: 2.0 credits (30 contact hours) Laboratory: 1.0 credit (15 contact hours). Components: Clinical, Laboratory, Lecture Attributes: Technical

Pediatric Nursing
Focuses on the application of the core components of nursing to the care of the child and family experiencing functional and dysfunctional health patterns. Prerequisite: NSG 213 and NSG 216 (within five years) with a grade of "C" or better and ENG 102. Lecture: 1.0 credit (15 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

Pharmacology I
Focuses on common drugs, their classification and effects on functional and dysfunctional health patterns (value/ belief, rest/sleep, health perception/health management, nutritional/metabolic and elimination health patterns). Emphasizes nursing responsibility, accountability, and application of the nursing process regarding drug therapy. Prerequisite: (NSG 101 and BIO 139) with a grade of "C" or higher and PSY 223. Co-requisite or corequisite: (NSG 210 and NSG 212) with a grade of "C" or higher, ENG 101 and Oral Communication. Lecture: 1.0 credit (15 contact hours). Components: Lecture Attributes: Technical

Pharmacology II
Focuses on common drugs: classifications, indications, and effects. Emphasizes nursing implications and the use of the nursing process in medication administration with emphasis on content introduced in Nursing One and Nursing Two. Prerequisite: NSG 106 with a grade of "C" or better. Corequisite: NSG 206 or NSG 196. Prerequisite or corequisite: PSY 223 and Oral Communications course. Lecture: 1.0 credit (15 contact hours). Components: Lecture Attributes: Technical

Nursing Pharmacology I
Course ID: 006182

Nursing Pharmacology II
Course ID: 005912

Medical/Surgical Nursing II
Focuses on the application of the core components of nursing to adult patients experiencing dysfunctional health patterns. Emphasizes the care of patients with activity-exercise dysfunctional health patterns (cardiac, respiratory and musculoskeletal). Prerequisite: (NSG 210, NSG 215 and NSG 212) with a grade of "C" or higher and ENG 101 and Oral Communications. Prerequisite or corequisite: (NSG 210 and BIO 225) with a grade of "C" or higher and ENG 102. Lecture: 3.0 credits (45 contact hours). Laboratory: 3.0 credits (135 contact hours). Components: Clinical, Laboratory, Lecture Attributes: Technical

Nursing Pharmacology I
Course ID: 005911

Nursing Pharmacology II
Course ID: 006183

Nursing One
Course ID: 006179

Nursing Pharmacology I
Course ID: 005912

Nursing Pharmacology II
Course ID: 006183
NSG 230(6) Course ID: 005914
Medical/Surgical Nursing III
Focuses on the application of the core components of nursing to adult patients experiencing dysfunctional health patterns. Emphasizes the care of patients with cognitive/perceptual, altered self-perception/self concept, management of patients with dysfunctional health patterns: neurological, eyes/ears, immune/cancer, multiple systems organ failure, and disaster planning. Role transition is addressed and emphasizes leadership, management of care, skill development and professionalism. NSG 230 is the capstone course and must be successfully completed in the final semester of the associate degree nursing program enrollment. (201 KAR 20:320). Prerequisite: (NSG 220 and NSG 211 and BIO 225) with a grade of "C" or higher and ENG 102. Pre-requisite or co-requisite: NSG 213, NSG 225, Heritage/Humanities/Foreign Language. Lecture: 3.0 credits (45 contact hours) Laboratory: 3.0 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 236(9) Course ID: 006184
Nursing Three
Includes application of the core components of nursing to the care of child-bearing and child-raising families experiencing functional and dysfunctional health patterns. Pre-requisite: (NSG 206 and NSG 216) with a grade of "C" or better. Co-requisite: NSG 226. Pre-requisite or co-requisite: BIO 225 (within ten years) with a grade of "C" or better and ENG 102. Lecture: 5.0 credits (75 contact hours) Laboratory/Clinical: 4.0 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 246(9) Course ID: 006185
Nursing Four
Emphasizes the development of the nurse as a provider of care, manager of care, and member of the nursing profession. Provides for the application of critical thinking skills in the care of diverse patients/families across the lifespan with actual or potential alteration in health due to complex acute and chronic health problems. Includes an integrated practicum with an emphasis on leadership, management, clinical judgment, collaboration, knowledge, skills, and professional values within the legal/ethical framework to facilitate the transition of the student to Registered Nurse practice. Pre-requisite: (NSG 236 and NSG 226) with a grade of "C" or better. Pre-requisite or Co-requisite: Heritage/Humanities/Foreign Language. Lecture: 5.0 credits (75 contact hours) Laboratory/Clinical: 4.0 credits (180 contact hours, 40:1 ratio).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 270(3) Course ID: 004293
Genetic Disorders
Introduction to various genetic disorders which health care workers are likely to see during their careers. Specific areas of study include basic genetic concepts, inheritance modalities, genetic disorders, and their direct impact on nursing care. Follows up on information obtained in Anatomy and Physiology, high school science, and basic biology classes presently offered by KCTCS.
Components: Lecture
Attributes: Technical

NSG 295(3) Course ID: 005782
Healthcare Cultural Immersion Experience
Introduces health care providers to cultural values, beliefs, practices, and communication patterns of a chosen culture through an immersion experience. Focuses on basic cultural vocabulary and on behaviors, beliefs, and nursing and health care practices of the chosen population. May be conducted in a country native to the chosen cultural group. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

NSG 298(3) Course ID: 004434
Alternative and Complementary Therapies
This is an elective course that focuses on the impact of alternative and complementary therapies in nursing practice. Holistic nursing is emphasized, as well as the nurse’s role in enhancing healing of the whole person from birth to death. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

NSG 299(1 - 4) Instructor Consent Required
Instructor Consent Required
Selected Topics in Nursing: (Topic)
Various nursing topics, issues, and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; courses may be repeated with different topics to a maximum of six credit hours. Lecture: Varies by topic; Laboratory: Varies by topic.
Prerequisite: Consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

OST 100(1)
Keyboarding
Develops skill operating a keyboard by touch. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

OST 101(3)
Keyboarding & Intro to Document Formatting
Develops skill in operating a keyboard by touch and to develop an introductory level of skill producing standard business documents using a word processing program with speed and accuracy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 105(3)
Introduction to Information Systems
Introduces and familiarizes students with essential computer concepts and terminology including operating systems software, multitasking concepts, disk and file management and telecommunications. Teaches basic competencies in word processing, electronic spreadsheets, presentations, databases, and online skills including networking, electronic mail, Web browsing, and Internet research. "Key 20 wpm is recommended." Pre-requisite: RDG 020. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Digital Literacy, Course Also Offered in Modules

OST 108(3)
Editing Skills for Office Professionals
A hands-on approach to editing business documents. Applies proper placement and structure of business documents. Reviews principles of grammar, punctuation, vocabulary, spelling, word and number usage, and proofreading rules. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 109(3)
Legal Terminology
Introduces the judicial system (discovery, trial, and appellate processes), civil law, criminal law, legal terminology and legal citations commonly used in the legal field. Includes terms and how to use them in legal context. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 110(3) Instructor Consent Required
Document Formatting and Introduction to Word Processing
Provides experience in word processing including mastery of touch typing with speed and accuracy using industry standard software. Prerequisite: RDG 020 and Consent of Instructor (OST 101 equivalent skills). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

OST 111(1)
Career Planning
Studies the practice and procedures of current office concepts including job application procedures, goal setting, and professionalism. Pre-requisite OR co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 112(3)
Financial Management
Designed to teach students fundamental principles and concepts including: financial markets, futures, bonds, commodities, interest rates, and taxes. The primary emphasis is short and long term financial planning along with interpretation of financial information. Careers in the financial industry discussed. Lecture: 3 credits (45 contact hours).
Components: Lecture

OST 113(1)
Speedbuilding
Presents techniques for increased keyboarding speed and accuracy. Lecture: 1 credit (15 contact hours).
Pre-requisite: OST 100 or equivalent as determined by typing competency test.
Components: Lecture
Attributes: Technical

OST 130(3)
Typography
Introduces the principles of typography, type basics, type aesthetics, how to design with type, parameters of type and how they can be used to produce quality type. Utilizes advanced commands and pagination composition skills. Studies grids, file management and other options such as design standards with business publications. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 150(3)
Transcription and Office Technology
Produce usable business documents from machine dictation using word processing software, with emphasis on spelling, punctuation, and grammar. Proofreading and editing applications stress the importance of accuracy and quality of documents. Demonstration of office machines will be incorporated. Lecture: 3 hrs; Laboratory: 0. Prerequisite: ENG 101 or Permission of Instructor and OST 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 160(3)
Records and Database Management
Presents aspects of the management of records from creation to disposal, using database software to create and edit files and prepare reports. Prerequisite: OST 105. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 210(3)
Advanced Word Processing Applications
Uses advanced features of a current word processing software to format and produce documents utilized in an office. Prerequisite: OST 110. Lecture: 3.0 credit hours. (45 contact hours).
Components: Lecture
Attributes: Technical

OST 213(3)
Business Calculations for The Office Professional
Applies skills required for the performance of business tasks: use of numeric keypad to compute payroll, markup/ markdown, purchases, loans, discounts, stock and bond transactions; and other business applications. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
OST 215(3) Course ID: 003774
Office Procedures
Studies the practices and procedures of current office concepts with emphasis given to the electronic office including: job application procedures, human relations in the office, business ethics, decision-making skills, travel and meeting arrangements, time and stress management, incoming/outgoing mail processes, and telephone procedures. Prerequisite Or Corequisite: OST 110. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 216(1 - 6) Course ID: 004515
Selected Topics
Expands course offerings to address local office issues as new technology is developed. Varies from semester to semester at the discretion of the instructor; may be repeated with different topics to a maximum of six credit hours. Lecture: 1-6 hours (15-90 contact hours).
Components: Lecture
Attributes: Technical

OST 220(3) Course ID: 003775
Administrative Office Simulations
Applies administrative procedures office simulations to include organizing, communicating, scheduling, and analyzing. Emphasizes productivity, efficiency, accuracy, and problem solving. Uses technology to research information on the Internet and send and receive e-mail. Continues to develop speed and accuracy. Prerequisite: OST 210, OST 215, and OST 240, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 221(3) Course ID: 005469
Legal Office Simulation
Applies classroom experiences and skills in a simulated legal office environment. Prerequisite: OST 110. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 225(3) Course ID: 003776
Introduction to Desktop Publishing
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Prerequisite: (OST 105 and OST 110) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 225(3) Course ID: 004425
Introduction to Business Graphics
Provides instruction in the process of image-editing including how to create original artwork, manipulate color, enhance artwork, graphics and retouch photographs and clipart used in desktop publishing programs. Prerequisite: OST 105 or OST 225 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 272(3) Course ID: 004511
Presentation Graphics
Uses industry standard software to create business presentations, business graphics, transparencies, and slides. Applies editing, formatting, page layout and design, and paste-up techniques for clarity and impact. Prerequisite: OST 105. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 275(3) Course ID: 003779
Office Management
Management principles and techniques and their applications to the modern business office are included. Emphasis is on information systems and the role of managerial personnel. Lecture: 3 credits. Laboratory: 0 credits.
Components: Lecture
Attributes: Technical

OST 295(1 - 3) Course ID: 003780
Instructor Consent Required
Administrative Office Technology Internship
Provides the opportunity to apply acquired occupational skills in a realistic setting, enhancing the transition from school to work. Requires approval of OST advisor. Prerequisite: OST 210, OST 215, and OST 240, or consent of instructor. Laboratory: 1.0 - 3.0 credits (45-135 contact hours).
Components: Laboratory
Attributes: Technical

OST 296(3) Course ID: 004505
Instructor Consent Required
Office Systems Technology Internship II
Enhances transition from school to work by providing non-paid work experience which utilizes the skills required to achieve occupational goal. Prerequisite: Consent of Program Advisor. Practicum: 3 credits (135 contact hours).
Components: Practicum
Attributes: Technical

OST 101(1) Course ID: 016303
Word Processing Functions
Provides basics of word processing including the information processing cycle, using spell check, proofreading and keyed accuracy using industry standard software. Pre-requisite: RDG 020 or Consent of Instructor (OST 101 equivalent skills). Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 110(2) Course ID: 016304
Document Letters Memoranda
Provides experience in word processing for keying letters and memoranda using industry standard software. Prerequisite: OST 1101 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 110(3) Course ID: 016305
Document Tables and Reports
Provides experience in word processing for keying tables and reports from reference materials using industry standard software. Pre-requisite: OST 1102 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 160(1) Course ID: 016814
Intro to Records Management
Describe and demonstrate the importance and specifics of record management requirements as well as specific career information. Pre-requisite OR Co-requisite: OST 105. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 1602(1) Course ID: 016815
Intro to Database Management
Identify ways to file and retrieve documents and compare automated and manual ways to store records. Pre-requisite OR Co-requisite: OST 105. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 1603(1) Course ID: 016816
Records and Database Mgmt Tech
Analyze automated techniques and describe the life cycles of stored records. Demonstrate skills related to all aspects of database filing. Pre-requisite OR Co-requisite: OST 105. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 210(1) Course ID: 016306
Advanced Formatting and Tools
Uses advanced formatting features and Word Processing Tools of a current word processing software. Pre-requisite: OST 110. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 2120(1) Course ID: 016307
Print and File Management
Uses advanced features of a current word processing software to manage file management, printing, and editing. Pre-requisite: OST 2101 or Consent of Instructor. Lecture 1 credit (15 contact hours).
Components: Lecture

OST 2120(1) Course ID: 016308
Advanced Word Processing Tools
Uses advanced features of a current word processing software to format tables, insert graphics and clipart, and forms. Pre-requisite: OST 2102 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 2151(1) Course ID: 016851
Career Planning
Studies the practice and procedures of current office concepts including job application procedures, goal setting, and professionalism. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 2152(1) Course ID: 016821
Key Office Procedure Skills
Emphasizes specific techniques and skills needed for an office setting including mail procedures, communication and public relations, business ethics and etiquette. Pre-requisite: OST 2151. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 2153(1) Course ID: 016822
Decision Making Methods
Studies the practice and procedures of current office concepts including decision-making skills, problem-solving techniques, travel and meeting arrangements, and time and stress management. Pre-requisite: OST 2152. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 2251(1) Course ID: 016309
Desktop Publishing Software
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: (OST 105 and OST 110) or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 2252(1) Course ID: 016310
Desktop Publishing Design and Features
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: OST 2251 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture
OT 2750(1)  Course ID: 016825
Creating Superior Publications
Design and produce superior publications using desktop publishing software. Pre-requisite: OT 2502. Pre-requisite OR Co-requisite: OT 225. Lecture 1.0 credits (15 contact hours)

Components: Lecture

OT 2751(0.5)  Course ID: 005806
Office Management Principles
Includes introductory management principles and techniques for the modern business office. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

OT 2752(1)  Course ID: 005807
Managing Human Resources in the Office
Includes management principles and techniques and their application to the management of human resources in the modern business office. Prerequisite: OT 2751. Lecture: 1 credit (15 contact hours).

Components: Lecture

OT 2753(0.5)  Course ID: 005808
Managing Office Administrative Services
Management principles and techniques for the modern business office as they apply to the development of an information system and the management of physical resources are included. Prerequisite: OT 2751. Lecture: 0.5 credit. (7.5 contact hours).

Components: Lecture

OT 2754(1)  Course ID: 005809
Managing Office Administrative Systems
Includes quality management principles and techniques for the administrative systems in a modern business office. Prerequisite: OT 2751. Lecture: 1 credit. (15 contact hours).

Components: Lecture

OTA 101(3)  Course ID: 006668
Introduction to Occupational Therapy
Introduces the profession of occupational therapy by examination of history, philosophy, and theoretical foundations. Examines roles of Occupational Therapist (OT) and Occupational Therapy Assistant (OTA) with respect to education, credential, employment settings, and ethics. Outlines usage of Occupational Therapy Practice Framework, medical terminology, group dynamics, and communication skills. Pre-requisite: Admission to OTA program or permission of instructor. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

OTA 113(2)  Course ID: 006669
Applied Anatomy and Kinesiology
Studies the musculoskeletal and nervous systems of the human body in relationship to movement and function. Emphasizes the upper extremity and shoulder girdle. Focuses on innervation of muscles, muscle grouping for function, and common problems seen when these systems are affected by disease/injury. Introduces the analysis of movement in specific life tasks. Uses the goniometer for joint measurement, manual muscle testing for strength, and promotes familiarity with the terms and techniques used in assessing motor function. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

OTA 115(2)  Course ID: 006881
Skills and Interventions I
Develops the basic occupational principles/applications of occupational therapy, such as the concept of basic needs, therapeutic interventions, techniques, applications, analysis, safety, and adaptive skill development as the basics of an individual's occupational performance. Provides explanation and introductory lab practice of the occupational therapy assistant elements. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

OTA 116(2)  Course ID: 006882
Media Principles and Procedures I
Develops skills in planning, implementing and evaluating occupational therapy for individuals experiencing deficits in occupational performance through the analysis of human occupation and subsequent methods of remediating, compensating, grading, and/or modifying activities and environments for optimal occupational performance. Develops communication skills necessary for documentation and patient interaction. Focuses on appropriate treatment and need for awareness of ethnic, cultural, and socio-economic factors that impact individuals. Provides opportunities for students to develop skills in activity analysis, functional mobility, therapeutic crafts, and modalities. Pre-requisite: Admission to OTA program and permission of instructor. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

OTA 125(2)  Course ID: 006883
Assistive Technology and Documentation
Presents various methods of documentation used in occupational therapy settings for evaluation, intervention, justification of payment for equipment, discharge, and other client records, and requirements of third party payers. Explores assistive technology to facilitate knowledge in a broad range of devices, services, strategies, and practices conceived and applied to decrease the problems faced by individuals. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

OTA 126(1)  Course ID: 006870
Level IA Fieldwork
Provides the opportunity to observe and participate in various settings appropriate to occupational therapy service but not necessarily within a therapy department or under an occupational therapy professional. Provides opportunities to develop entry-level skills in the occupational therapy process with hands-on interaction as appropriate. Encourages development of professional behaviors and effective communication skills. Pre-requisite: Admission to OTA program and permission of instructor. Clinical: 1.0 credit (60 contact hours).

Components: Clinical
Attributes: Technical

OTA 136(4)  Course ID: 006871
Physical Dysfunction
Includes study of physical conditions commonly seen by Occupational Therapy, including diagnoses, instruction on treatment, and application of treatment. Introduces practice models to guide treatment applications, including procedures for multiple conditions in physical dysfunction. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 4.0 credits (120 contact hours).

Components: Lecture
Attributes: Technical

OTA 145(3)  Course ID: 006872
Occupational Therapy in Mental Health
Presents typical and dysfunctional behavior using the occupational therapy process as it pertains to mental health practice settings. Explores alternative methods and settings for mental health practice. Covers training and practice in interpersonal skills necessary for effective communication with clients, families, significant others, other health care professionals, and the public. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 3.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

OTA 206(2)  Course ID: 006873
Community Practice
Explores the current and emerging practice areas of occupational therapy in the immediate and future needs. Focuses on occupation-based practice, holism, wellness, and prevention models applied throughout the lifespan. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contacts)

Components: Lecture
Attributes: Technical

OTA 216(2)  Course ID: 006884
Skills and Interventions II
Incorporates analysis, instruction and implementation of occupational therapy treatment techniques. Provides opportunities to apply theoretical concepts in practice situations, involving higher-level activities of daily living, comprehensive analysis, purposeful activity, modalities and neuro-educational re-education. Applies implementation skills necessary for level II fieldwork and to work as entry-level occupational therapy assistant. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

OTA 225(2)  Course ID: 006885
Skills and Interventions II
Provides the opportunity to advance therapeutic skills and to generalize occupational therapy process. Provides opportunities for students to advance therapeutic skills and to generalize skills and knowledge from the classroom to the practice setting. Focuses on professional behaviors and communication skills established in previous occupational therapy classes. Pre-requisite: Admission to OTA program and permission of instructor. Clinical: 1.0 credit (60 contact hours).

Components: Clinical
Attributes: Technical

OTA 226(1)  Course ID: 006874
Level IB Fieldwork
Provides the opportunity to observe and participate in various settings appropriate to occupational therapy service but not necessarily within a therapy department or under an occupational therapy professional. Provides opportunities to develop intermediate skills in the occupational therapy process. Provides opportunities for students to advance therapeutic skills and to generalize skills and knowledge from the classroom to the practice setting. Hones professional behaviors and communication skills established in previous occupational therapy classes. Pre-requisite: Admission to OTA program and permission of instructor. Clinical: 1.0 credit (60 contact hours).

Components: Clinical
Attributes: Technical

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OTA 236(2) Course ID: 006875  
**Professional Transitions and Management**  
Explores professional issues related to the transition from student to practitioner, the relationships the occupational therapy assistant (OTA) has with other health care professionals, identification of licensure and certification requirements, professional memberships, job search strategies, methods of reimbursement, and formulation of professional resources to become a successful entry level therapist. Pre-requisite: Admission to OTA program and permission of instructor. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture  
Attributes: Technical

OTA 246(3) Course ID: 006876  
**Pediatric Issues in Occupational Therapy**  
Examines occupational therapy in the pediatric population. Investigates how physical, emotional, and cognitive processes begin, change, and develop from birth through adolescence. Addresses concepts of occupation in pediatrics. Encourages students to view treatments holistically while learning normal developmental milestones and various disabilities. Pre-requisite: Admission to OTA program and permission of instructor. Practicum: 5.0 credits (300 contact hours).  
Components: Lecture  
Attributes: Technical

OTA 256(2) Course ID: 006877  
**Elder Issues in Occupational Therapy**  
Explores the concerns for occupational therapy in the aging population. Examines how physical, emotional and cognitive processes change through adulthood. Discusses the concepts of occupational therapy throughout the life span employing a holistic approach to intervention. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

OTA 266(5) Course ID: 006878  
**Level IIA Fieldwork**  
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapy practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of treatment programs with clients with a variety of diagnoses and ages. Cultivates skills necessary to function at entry-level of practice through the first of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).  
Components: Practicum  
Attributes: Technical

OTA 276(5) Course ID: 006879  
**Level IIB Fieldwork**  
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapy practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of treatment programs with clients with a variety of diagnoses and ages. Cultivates skills necessary to function at entry-level of practice through the first of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to OTA program and permission of instructor. Practicum: 5.0 credits (300 contact hours).  
Components: Practicum

OTA 277(5) Course ID: 007411  
**Level IIB Fieldwork**  
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapy practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of treatment programs with clients with a variety of diagnoses and ages. Strengthens complex skills, including critical thinking, required for entry-level of practice through the final of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to OTA program and permission of instructor. Practicum: 5.0 credits (300 contact hours).  
Components: Practicum  
Attributes: Technical

PGL 111(3) Course ID: 007051  
**Legal Systems and Terminology**  
Provides an overview of major principles and functions of the state and federal legal systems, introduces various legal fields for professional opportunities, presents legal vocabulary, gives an overview of different areas of law, and presents ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 112. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PGL 112(3) Course ID: 007052  
**Legal Research**  
Introduces the basic sources of law and methods of legal research, including ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 111. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PGL 113(3) Course ID: 007053  
**Law Office Management**  
Provides practical application of daily legal office skills needed in the legal field, professional enrichment presentations, history of the profession, professional ethics through fact analysis, and an overview of law office management. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PGL 211(3) Course ID: 007054  
**Family Law**  
Examines the areas of law pertaining to domestic relations, emphasizing ethics. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PGL 212(3) Course ID: 007055  
**Legal Writing**  
Includes composition of legal communications, briefs, memoranda, and other legal documents, with an emphasis on ethical considerations. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PGL 213(3) Course ID: 007056  
**Civil Litigation I**  
Presents the litigation process and emphasizes the structure of the court systems. Includes gathering information and evidence, summarizing and arranging materials, maintaining docket and file control, developing a litigation case, and interviewing clients and witnesses, using ethical standards. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PGL 214(3) Course ID: 007057  
**Real Property I**  
Introduces real property law including ownership, transfer of property, liens and encumbrances, and the various types of deeds. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PGL 221(3) Course ID: 007058  
**Wills and Estates**  
Introduces the laws of inheritance and estates, basic concepts of estates and wills, probate procedures, and preparation of documents while emphasizing ethics. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PGL 223(3) Course ID: 007059  
**Civil Litigation II**  
Continues the study of the litigation process from discovery through appeal. Emphasizes collecting and organizing discovery materials and demonstrating knowledge of the limits placed on discovery by the federal and state rules of civil procedure. Includes the trial and appeal phases of litigation, with emphasis on trial preparation and appellate procedure. Pre-requisite: PGL 213. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PGL 224(3) Course ID: 007060  
**Real Property II**  
Examines legal documents related to real property as recorded in the clerk’s office, the tax assessor’s office, and the circuit clerk’s office. Includes compiling a title abstract and completing an assignment to prepare a real estate file from transaction through closing and post-closing, implementing ethics. Pre-requisite: PGL 214. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PGL 231(3) Course ID: 007061  
**Torts**  
Provides instruction in the area of law that deals with civil wrongs and injuries, including intentional wrongs, negligence, and strict liability. Concentrates on the elements of a tort, type of tort, damages, ethics, and remedies. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PGL 233(3) Course ID: 007062  
**Ethics**  
Provides an overview of the various sources of ethics law and rules, along with the essentials of how and why a legal professional must report misconduct. Explores the types of discipline an ethical lapse may trigger, such as sanctions, disqualification, civil and criminal liability, and what it means to be engaged in the “unauthorized practice of law.” Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical
**Course Descriptions**

**PGY Physiology**

**PGY 206(3) Course ID: 000846**

**Elementary Physiology**

An introductory survey course in basic human physiology. Prerequisite: One semester of college biology. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (University of Kentucky)

**PHA Pharmacy**

**PHA 104(2) Course ID: 004160**

**Parenterals**

A basic understanding of working with admixtures. Focuses on aseptic technique and basic sterile compounding. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**PHA 110(6) Course ID: 004159**

**Pharmacy Procedures and Skills**

Introduces the field of pharmacy. Includes pharmacy technician responsibilities, legal requirements, safety issues, and basic skills of a pharmacy technician. Lecture: 4.0 credits (60 contact hours); Lab: 2.0 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**PHA 125(2) Course ID: 004161**

**Pharmaceutical Calculations**

Covers basic math review, percentage strengths, ratio and proportion, conversion between the apothecary and metric systems, and intravenous calculations. Focus is on equivalences and calculation of drug dosages. Prerequisite: MAT 065 or equivalent. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

**PHA 136(3) Course ID: 001930**

**Pharmacology**

Introduces the study of drugs and their effect on the human body. Emphasis is placed on the most commonly used drugs, their dosage and common side effects as well as any adverse reactions that might occur. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**PHA 200(3) Course ID: 001931**

**Admixtures for IV Therapy**

Provides a basic working knowledge for the pharmacy technician involved in the preparation of IV admixtures. Prerequisite: (PHA 110 and PHA 136) and PHA 125) with a grade of “C” or greater. Corequisite: PHA 205 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**PHA 205(1) Course ID: 001932**

**Admixture Preparations**

Provides the opportunity to become proficient in the techniques of IV admixing and in the use of related equipment associated with sterile product preparation. Prerequisite: (PHA 110 and 136) with a grade of “C” or greater). Corequisite: PHA 200 or Consent of Instructor. Lab: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

**PHA 210(6) Course ID: 001934**

**Drug Classifications**

Provides a study of the principles and classifications, drug nomenclature, and dosage forms as related to conditions of the body. Prerequisite: (PHA 110 and 136 with a grade of “C” or greater). Corequisite: PHA 205 or Consent of Instructor. Lecture: 6.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

**PHA 250(1 - 8) Course ID: 001936**

**Instructor Consent Required**

**Pharmacy Experience**

Provides work experience in the pharmacy setting to enhance skills required to reach occupational goals for the pharmacy technician. Prerequisite: Consent of Instructor. Clinical: 1.0 - 8.0 credits (60-480 contact hours).

Components: Clinical
Attributes: Technical

**PHB Phlebotomy**

**PHB 100(6) Course ID: 001938**

**Phlebotomy**

Prepares the student as an integral member of the health-care team to collect blood from patients/donors in hospitals, blood banks or clinics for analysis or other medical purposes. Includes standard precautions, record keeping, and therapeutic communication skills. Lecture/Lab: 6.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

**PHB 120(6) Course ID: 003809**

**Fundamentals of Clinical Laboratory Phlebotomy**

Fundamental techniques of areas of the clinical laboratory appropriate to the phlebotomist are introduced. Included is a study of medical ethics, medical terminology, anatomy and physiology of the circulatory system, professional organizations, communication, record keeping, specimen collection, chain of custody, laboratory safety, and quality control. Lecture: 3 hrs; Laboratory: 9 hrs. Prerequisite: CPR Certification, Malpractice insurance, Hepatitis, Varicella, PPD, Rubella, and Rubella blood work results.

Components: Laboratory, Lecture
Attributes: Technical

**PHB 151(1) Course ID: 004072**

**Instructor Consent Required**

**Phlebotomy for the Health Care Worker**

Covers fundamental techniques in proper venipuncture and capillary collection. Includes a study of medical ethics, laboratory terminology, anatomy and physiology of the circulatory system, communication and record keeping, specimen processing, laboratory safety, isolation procedures and special collection. Lecture/Lab: 1.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

**PHB 152(1) Course ID: 004175**

**Fundamentals of Clinical Laboratory Phlebotomy**

Introduces basic working knowledge of the pharmacy technician involved in the preparation of IV admixtures. Prerequisite: PHB 151 or equivalent. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

**PHB 153(4) Course ID: 004479**

**Advanced Topics in Phlebotomy**

Prepares the student as an integral member of the health-care team. One who collects blood from patients/donors in hospitals, blood banks or clinics for analysis or other medical purposes. Practices standard precautions, record keeping, vital signs and therapeutic communication skills. Prerequisite: PHB 151 Phlebotomy for the Healthcare Worker. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

**PHI Philosophy**

**PHI 100(3) Course ID: 000894**

**Introduction to Philosophy: Knowledge and Reality**

Introduces students to philosophical studies with emphasis on issues of knowing, reality, and meaning related to human existence. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

**PHI 110(3) Course ID: 002202**

**Medical Ethics**

Introduces examination and application of major ethical theories to specific moral questions related to health care. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

**PHI 120(3) Course ID: 000356**

**Introductory Logic**

Covers argumentation, syllogistic and sentential logic. Focuses on the use of formal methods in the construction and criticism of actual arguments, the aim being to inculcate standards of good reasoning, e.g., clarity, consistency, and validity. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

**PHI 130(3) Course ID: 000354**

**Ethics**

Introduces students to a critical examination of philosophical principles related to moral action and political values. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

**PHI 140(3) Course ID: 005139**

**The Ethics of War and Peace**

Ethical reasoning and application of ethical theories to moral issues connected to war and peace. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

**PHI 150(3) Course ID: 000359**

**Business Ethics**

Presents ethical theories and techniques of moral reasoning used to analyze moral issues in business. Applies ethical reasoning to current issues of management, employees, government, public safety, and the environment. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

**PHI 160(3) Course ID: 015595**

**Philosophy Through Pop Culture**

Surveys major philosophical themes, such as value, morality, evil, friendship, beauty, God, reality, and the meaning of life, and applies these themes to an examination of how they are represented in several sources of popular culture, including literature, film, art, music, media, and stage. Prerequisite: ENG 101. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

**PGY Physiology**

**PGY 206(3) Course ID: 000846**

**Elementary Physiology**

An introductory survey course in basic human physiology. Prerequisite: One semester of college biology. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (University of Kentucky)
PHI 170(3)  Course ID: 016632
Philosophy of Religion
Introduces students to issues in philosophy of religion including the concept of God, arguments for and against the existence of God, the relation between faith and reason, the nature of religious experience, the problem of evil, and immortality. Pre-requisite: ENG 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Other

PHI 200(3)  Course ID: 016766
Professional Responsibility
Assesses the proper role of ethics within different professional settings, examining different professional codes of ethics and approaches to leadership and professionalism. Examines the nature of the professional-client relationship, recurring moral dilemmas, and the role of professionals in society. Develops a professional portfolio and practical professional skills. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Other

PHI 250(3)  Course ID: 016844
Symbolic Logic
Introduces students to the methods of formal deductive logic with emphasis upon applications to mathematics, computer science, and/or legal reasoning. Covers the language and rules of formal logic as well as techniques of formal proof. Pre-requisite: Math ACT score of 19 or above. 2. Successful completion of Intermediate Algebra, MAT 075, MAT126, or equivalent, or 3. KCTCS Placement exam recommendation. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

PHI 260(3)  Course ID: 000698
History of Philosophy I: From Greek Beginnings to the Middle Ages
Provides an introductory study of the development of Western philosophy from ancient to late medieval times, including the development of fields such as logic, metaphysics, epistemology, and ethics. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 270(3)  Course ID: 000497
History of Philosophy II: From the Renaissance to the Present Era
Provides an introductory study of the development of Western philosophy from early modern through contemporary times, including the development of fields such as metaphysics, analytic and continental philosophy, and ethics. Pre-requisite: ENG 161. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 299(3)  Course ID: 006969
Special Topics in Philosophy: Topic
Examines special topics in philosophy. Includes, but not limited to, individual philosophers, movements, writings, traditions, and selected eras. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

PHI 1501(1)  Course ID: 016636
Theories in Business Ethics
Presents ethical theories and techniques of moral reasoning used to analyze moral issues in business. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

PHI 1502(1)  Course ID: 016637
Applying Business Ethics
Applies ethics and reasoning to current issues of management. Pre-requisite: PHI 1501. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

PHI 1503(1)  Course ID: 016638
Defending Business Ethics
Evaluates current theories of corporate responsibility. Pre-requisite: PHI 1502. Lecture: 1.0 credits (15 contact hours).

PHI 175(6)  Course ID: 001941
Applied Physics
This course is a basic study of the principles of physics and mechanics, including motion, force, vectors, work, energy, machines, properties of matter, behavior of fluids, temperature and heat, properties of gases, wave motion, electricity, light, and nuclear physics. Problem solving techniques are stressed. Corequisite: MT 125. Lecture: 6 credits (150 contact hours).
Components: Lecture
Attributes: Other

PHS UTC Physics

PHY 150(3)  Course ID: 001944
Introductory Physics
A non-calculus approach to the concepts and applications of the physical principles of force, work, rate, resistance, energy, power, force transformers and gas laws is presented in this course. Students are shown by examples, classroom demonstration, and laboratory experiments how these concepts are applied to the translational and rotational mechanical, fluidal, electrical and thermal energy systems. Problem solving techniques and scientific method are stressed throughout this course. Pre-requisite: MT 115 or MT 125. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PHY 151(3)  Course ID: 000840
Introductory Physics I
Focuses on the conceptual principles of mechanics of solids, liquids, gases, heat, and sound using some algebra. Credit is not given to students who already have credit for PHY 201 or PHY 231. Companion lecture to PHY 161 laboratory. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

PHY 152(3)  Course ID: 000402
Introductory Physics II
Focuses on the conceptual principles of electricity, magnetism, optics, atomic and nuclear physics using some algebra. Credit is not given to students who already have credit for PHY 203 or PHY 232. Companion lecture to PHY 162 laboratory. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

PHY 160(3)  Course ID: 000436
Physics and Astronomy for Elementary Teachers
Addresses basic concepts of astronomy and physics appropriate for elementary teachers and is taught with an emphasis on inquiry-based, laboratory activities. Topics include the basics of the motion of objects, astronomy by sight, electrical circuits, magnetism and the behavior of light. Companion course to GLY 160. Pre-requisite: GLY 160. Lecture: 1 credit hour (15 contact hours). Lab: 2 credit hours (75 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

PHY 161(1)  Course ID: 000471
Introductory Physics I Laboratory
Investigates concepts introduced in PHY 151 through experiments in classical mechanics and thermal physics. Pre-requisite or concurrent: PHY 151. Lab: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 162(1)  Course ID: 000475
Introductory Physics II Laboratory
Investigates concepts introduced in PHY 152 through experiments in electricity, magnetism, light, atoms, and nuclei. Pre-requisite or concurrent: PHY 152. Laboratory: 1 credit (15 contact hours). Lab: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 171(4)  Course ID: 000156
Applied Physics
Surveys mechanics, heat, sound, electricity, magnetism, light, and modern physics as applied to practical systems. Pre-requisite: (MAT 085 or (MAT 116 or greater) or Equivalent math placement score) or consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

PHY 171A (1)  Course ID: 015438
Applied Physics: Mechanics
Surveys selected topics in motion, force, energy, and momentum. Pre-requisite: (MAT 085 or (MAT 116 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 1.0 credit (15.0 contact hours).
Components: Lecture

PHY 171C(1)  Course ID: 015440
Applied Physics: Electricity, Magnetism, and Sound
Surveys selected topics in waves, sound, electricity, and magnetism. Pre-requisite: (MAT 085 or (MAT 116 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 1.0 credit (18.0 contact hours).
Components: Lecture

PHY 171D(1)  Course ID: 015441
Applied Physics: Optics and Modern Physics
Surveys selected topics in light, optics, and modern physics. Pre-requisite: (MAT 085 or (MAT 116 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 1.0 credit (18.0 contact hours).
Components: Lecture

PHY 171G(1)  Course ID: 004817
Physics for Health Sciences
Introduces the basic concepts of motion, forces, work, energy, power and waves through experimentation, as applied in electricity and magnetism, optics, atomic, and nuclear physics. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lab: 2 credit hours (60 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 201(4)  Course ID: 000911
College Physics I
Focuses on the mechanics of matter as governed by Newton’s Laws; by the conservation laws of energy, momentum, and angular momentum; and thermal processes using algebra and basic trigonometry. Companion lecture to PHY 202 laboratory. Credit is not given to students who have already completed PHY 201. Lab: 3 credits (45 contact hours). Discussion: 1 credit hour (15 contact hours).
Components: Discussion, Lecture
Attributes: SN - Science

PHY 202(1)  Course ID: 000627
College Physics I Laboratory
Enhances concepts introduced in PHY 201 through experimentation in classical mechanics and thermal physics. Pre-requisite Or Co-requisite: PHY201 or equivalent. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory
PHY 203(4) Course ID: 000524
College Physics II
Focuses on electromagnetic phenomena, circuits, optics and an introduction to modern physics using algebra and basic trigonometry. Companion lecture to PHY 204 laboratory. Credit is not given to students who have already completed PHY 232. Prerequisite: PHY 201 or equivalent. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).
Components: Discussion, Lecture Attributes: SN - Science

PHY 204(1) Course ID: 000192
College Physics II Laboratory
Enhances concepts introduced in PHY 203 through experiments in electricity, magnetism, and optics. Prerequisite Or Co-requisite: PHY 203 or equivalent. Lab: 1.0 credit hour (30 contact hours).
Components: Laboratory Attributes: SL - Science Laboratory

PHY 231(4) Course ID: 000290
General University Physics I
Focuses on the mechanics of matter as governed by Newton's Laws and by the conservation laws of energy, linear momentum, and angular momentum using calculus and trigonometry. Companion lecture to PHY 241 laboratory. Prerequisite Or Co-requisite: MT126 and MA114 or equivalent. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).
Components: Discussion, Lecture Attributes: SN - Science

PHY 232(4) Course ID: 000625
General University Physics II
Focuses on electromagnetic phenomena, circuits, and optics using vector calculus. Companion lecture to PHY 242 laboratory. Prerequisite: PHY 231. Prerequisite Or Co-requisite: MT275 or MA213 or equivalent. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).
Components: Discussion, Lecture Attributes: SN - Science

PHY 241(1) Course ID: 000638
General University Physics I Laboratory
Enhances concepts introduced in PHY 231 through a complement of experiments relating to motion, Newton's laws, rotation, and energy conservation principles. Prerequisite Or Co-requisite: PHY 231. Laboratory: 1 credit hour (30 contact hours).
Components: Laboratory Attributes: SL - Science Laboratory

PHY 242(1) Course ID: 000642
General University Physics II Laboratory
Enhances concepts introduced in PHY 232 through a complement of experiments probing electromagnetic phenomena, circuits, and optics. Prerequisite Or Co-requisite: PHY 232. Laboratory: 1 credit hour (30 contact hours).
Components: Laboratory Attributes: SL - Science Laboratory

PHY 1711(0.5) Course ID: 006109
Motion & Newton's Laws
Surveys selected topics in velocity, acceleration, and force. Prerequisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.37 contact hours).
Components: Lecture

PHY 1712(0.5) Course ID: 006110
Work, Energy, Power, and Momentum
Surveys selected topics in work, energy, power, and momentum. Prerequisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).
Components: Lecture

PHY 1713(0.5) Course ID: 006111
Fluid Dynamics
Surveys selected topics in fluid dynamics. Prerequisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.37 contact hours).
Components: Lecture

PHY 1714(0.5) Course ID: 006112
Thermodynamics
Surveys selected topics in thermodynamics. Prerequisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.39 contact hours).
Components: Lecture

PHY 1715(0.5) Course ID: 006113
Electricity and Magnetism
Surveys selected topics in electricity and magnetism. Prerequisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.37 contact hours).
Components: Lecture

PHY 1716(0.5) Course ID: 006114
Wave Motion, Sound, and Light
Includes selected topics in wave mechanics, sound, and optics. Prerequisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.38 contact).
Components: Lecture

PHY 1717(0.5) Course ID: 006115
Modern and Nuclear Physics
Surveys selected topics in atomic, nuclear, and modern physics. Prerequisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.37 contact hours).
Components: Lecture

PHY 1718(0.5) Course ID: 006116
Integrated Physics Concepts
Surveys selected topics in applied physics. Prerequisite: PHY 1711 and PHY 1712 and PHY 1713 and PHY 1714 and PHY 1715 and PHY 1716, and PHY 1717 or Consent of instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).
Components: Lecture

PHYS Physics

PHYS 105(3) Course ID: 005599
Concepts of the Physical World
A one-semester introduction to the concepts of physics for students planning to teach in elementary and middle schools. Topics include structure and properties of matter, mechanics, electricity, magnetism, heat, light and sound. Laboratory experiments are an integral part of this course. Pre-requisite: MT 120 or greater. Lecture: 3 credits (45 contact hours).
Components: Lecture

PL Plastics

PL 101(4) Course ID: 001959
Plastic Processes and Materials
This course provides the student with an introduction to plastics processes and terminology. Topics covered include polymer chemistry, polymer processing, thermoplastics, properties of plastics, plastics manufacturing processes, manufacturing equipment, tooling and molds, and health, safety and business considerations in the commercial production of plastic products. Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Technical

PL 151(4) Course ID: 001960
Polymer Science & Testing
Provides an in-depth study of various plastics and important processing methods. Examines molecular structures and their effect on mechanical, chemical and physical properties. Includes commodity and engineering thermoplastics, thermosets and elastomers, extrusion, injection, blow molding and thermoforming. Prerequisite: PL 101. Lecture: 4 credits (60 contact hours).
Components: Lecture

PLB Plumbing

PLB 100(3) Course ID: 004325
Basic Theory of Plumbing
Provides a history of the plumbing trade and basic principles of the trade. Lecture: 2 credits (45 contact hours).
Components: Lecture Attributes: Technical

PLB 105(3) Course ID: 004326
Plumbing Principles
Provides the proper installation procedures for piping, water heaters and sewage systems. The plumbing codes appropriate for each installation will also be studied. Laboratory: 3 credits (135 contact hours).
Components: Laboratory

PLB 150(3) Course ID: 001945
Plumbing, Introduction to the Trade
Introduces the origin and basic principles of the plumbing industry. Includes the orientation of methods associated with the plumbing industry. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

PLB 151(3) Course ID: 001946
Basic Plumbing Skills
This course introduces the student to basic pipe joining techniques. Corequisite: PLB 150. Laboratory: 3 credits (135 contact hours).
Components: Laboratory Attributes: Technical

PLB 163(2) Course ID: 001949
Plumbing Fixtures
Develops the skills necessary to rough-in and install a kitchen group and laundry fixtures for residential and commercial applications. Prerequisite: PLB 150. Corequisite: PLB 250. Laboratory: 2 credits (90 contact hours).
Components: Laboratory Attributes: Technical

PLB 250(3) Course ID: 001950
Plumbing Appliances & Fixtures
Presents the installation practices of residential water heaters (electrical and gas), and the installation of commercial water heating systems with pumps, controls, and valve systems. Study will also include site layout and testing. Prerequisite: PLB 150. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

PLB 251(2) Course ID: 001951
Pumps and Water Heaters
Develops skills in the installation of plumbing appliances (water heater), and appurtenances. Prerequisite: PLB 150. Corequisite: PLB 250. Laboratory: 2 credits (90 contact hours).
Components: Laboratory Attributes: Technical

PLB 260(2) Course ID: 001953
Service
This course presents the study of methods, procedures, and skills involved in planning and estimating residential and commercial plumbing fixtures and systems. Prerequisite: PLB 150 or equivalent. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

PLB 261(2) Course ID: 001954
Advanced Plumbing Lab
This course will teach the student to plan and apply local code requirements for residential plumbing systems, and estimate supplies and cost of same. Prerequisite: PLB 150 or equivalent. Laboratory: 2 credits (90 contact hours).
Components: Laboratory Attributes: Technical
PLW 262(3)  Course ID: 001955
Backflow Prevention
This course teaches the student how to protect portable water systems from the hazards of backflow. Prerequisite: Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PLW 270(3)  Course ID: 001956
License Preparation for Journeyman Exam
Provides a study of Kentucky Code in preparation for the Journeyman Exam. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

PLW 289(4)  Course ID: 004251
Instructor Consent Required
Practicum/Repairs & Maintenance
Designed to provide the student with experience in the plumbing industry. This will be a non-paid evaluation of a student's developed skills. Prerequisite: Consent of instructor. Practicum: 4 credits (180 contact hours).
Components: Practicum
Attributes: Technical

PLW Project Lead The Way
PLW 100(4)  Course ID: 006695
Introduction to Engineering Design
Provides an introduction to the engineering profession, engineering disciplines, and technology. Emphasizes a “problem-solving” approach, engineering design process, and team projects. Lecture/Lab: 4 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 125(4)  Course ID: 006696
Principles of Engineering
Students will be introduced to various types of engineering, engineering communications, various design processes, types of engineering systems, statics, materials, and strength of materials, engineering for reliability, and kinematics. Pre-requisite: PLW 100. Lecture/Lab: 4 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 130(4)  Course ID: 007197
Principles of Biomedical Sciences
Engages students in the study of human medicine, research processes and an introduction to bioinformatics. Exposes students to investigations of human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. Includes analysis of key biological concepts including: homeostasis, metabolism, inheritance of traits, feedback systems, the relationship of structure to function and defense against disease. Outlines all the courses in the Biomedical Sciences' program and to lay the scientific foundation necessary for student success in the subsequent courses. Pre-requisite: Reading, English, and Mathematics assessment exam scores above the KCTCS transitional placement level or successful completion of the prescribed transitional course(s). Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 135(4)  Course ID: 007281
Principles of Human Body Systems
Emphasizes the study of human body systems investigating identity, communication, power, movement, protection, and homeostasis. Uses experiments that investigate the structures and functions of the human body and uses data acquisition software to monitor body functions. Explores science in action as students build organs and tissues on a skeletal model, work through real-world cases, and role-play biomedical professionals to solve medical mysteries. Pre-requisite: PLW 130. Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 140(4)  Course ID: 015805
Medical Interventions
Focuses on exploring a variety of interventions involved in the prevention, diagnosis and treatment of disease. Uses a How-To manual to introduce prevention of and fighting of infection; how to screen and evaluate the code in human DNA; how to prevent, diagnose and treat cancer; and how to prevail when the organs of the body begin to fail. Examines lifestyle choices and preventive measures that influence health and highlights the important roles scientific thinking and engineering design play in the development of interventions of the future are examined. Pre-requisite: PLW 135. Lecture: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 145(4)  Course ID: 016454
Biomedical Innovation
Leads students to apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences in a capstone course. Facilitates student design of innovative solutions for the health challenges of the 21st century in areas such as clinical medicine, physiology, biomedical engineering, and public health. Provides the opportunity to work on an independent project with a mentor, or advisor from a university, hospital, physician’s office, or health industry provider. Students present their work in an audience including representatives from the local business and healthcare community. Pre-requisite: PLW 140. Lecture/Lab: 4 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 150(4)  Course ID: 006697
Digital Electronics
This course uses computer simulations and hands on laboratory to teach students about the logic of electronics as they design, test, and construct electronic circuits and devices. Lecture: 1 credit (15 contact hours). Lab: 3 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

PLW 200(4)  Course ID: 006698
Aerospace Engineering
The major focus of the Aerospace Engineering (AE) course is to expose students to the world of aeronautics, flight, and engineering. They will employ engineering and scientific concepts in the solution of aerospace problems. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/Lab: 4 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 225(4)  Course ID: 006699
Civil Engineering and Architecture
The major focus of the Civil Engineering and Architecture (CEA) course is a long-term project that involves the development of a local property site. As students learn about various aspects of civil engineering and architecture, they apply what they learn to the design and development of this property. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/Lab: 4 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 250(4)  Course ID: 006700
Computer Integrated Manufacturing
The purpose of the Computer Integrated Manufacturing course is to expose students to the fundamentals of computerized manufacturing technology. The course includes: Computer Modeling; CNC Equipment; CAM Software; Robotics; and Flexible Manufacturing Systems. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/Lab: 4 credits (150 contact hours).
Components: Lecture

PLW 295(4)  Course ID: 006701
Engineering Design and Development
Engineering student teams research, design, and construct a solution to open-ended engineering problem using product development lifecycle and the design process. Presentation to defend solutions to a panel of outside reviewers. Pre-requisite: PLW 150 AND one of the following: PLW 200, OR PLW 225, OR PLW 250, OR Consent of the APC and/or Instructor. Lecture/Lab: 4 credits (150 contact hours).
Components: Lecture

PMX Power Mechanics/Measurement
PMX 100(3)  Course ID: 001962
Precision Measurement
This class introduces the student to the basic fundamentals of precision measurement and its application in the industrial setting. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

POL Political Science
POL 101(3)  Course ID: 000912
American Government
Examines national government and the political process in the United States, with emphasis on the Constitution, the President, Congress, and the judicial system. Focuses on the nature of American democracy, political challenges, and opportunities. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 210(3)  Course ID: 000630
Introduction to European Politics: East and West
Compares the political institutions, policy-making processes, citizen participation and political outcomes in Eastern and Western European states. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 212(3)  Course ID: 002254
Culture and Politics in Developing Nations
Examines and compares the politics of selected states in Africa, Asia, and Latin America analyzing such issues as culture, ethnicity, language, social class, and ideology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science
POL 235(3) Course ID: 000438
World Politics
Examines the most significant problems of world politics, including the fundamental factors governing international relations, the techniques and instruments of power politics, and the continuing interest in organizing world peace. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

POL 255(3) Course ID: 000066
State Government
Examines the institutions, political processes, and policies of state governments, and the relationships of state governments with other levels of government in the United States. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 271(3) Course ID: 000724
Introduction to Political Behavior
The study of behavior in a political context; the analysis of basic behavioral concepts used in political science such as political roles, group behavior, belief systems, personality, power, and decision-making. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

POL 280(3) Course ID: 005213
Issues in Public Policy
Examines selected major public issues, focusing on their nature, political ramifications, and alternate methods of managing conflict. Includes discussion of varying policies such as poverty, health care, energy, education, race and ethnic relations, and the environment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

PSG 110(2) Course ID: 005275
Introduction to Polysomnography
Introduces the topics of behavioral and performance objectives, national patient safety goals, medical ethics, infection control, environmental and clinical emergencies, HIPPA, basic medical terminology and skills required for employment. Prerequisite: Minimum grade of a C in ([BIO 137 and (MAT 110 or MAT 146 or MAT 150)] or consent of the instructor. Lecture: 2.0 credit (30 contact hours).
Components: Lecture
Attributes: Technical

PSG 111(1) Course ID: 005277
Polysomnography Lab I
Provides laboratory training in advanced aspects of polysomnographic technology. Students will become familiar with the skills and apply the knowledge needed to evaluate sleep recordings. It covers sleep stage scoring, event recognition, report generation, and higher level therapeutic interventions. Includes procedure and scoring for specialized testing such as the multiple sleep latency test (MSLT) and maintenance of wakefulness test (MWT). Laboratory: 1 credit (60 contact hours). Prerequisite: PSG 111 with a grade of "C" or better, or consent of the instructor.
Components: Laboratory
Attributes: Technical

PSG 130(3) Course ID: 005279
Polysomnography Level II
Addresses all of the aspects of sleep scoring and event recognition, instrumentation setup and calibration, recording and monitoring techniques, documentation, professional issues, therapeutic interventions, and patient-technologist interactions related to polysomnography. Clinical: 3 credits (180 contact hours). Prerequisite: ([BIO 137 and (MT 110 or MT 145 or MT 150)] with a grade of "C" or better) or consent of the instructor. Also Healthcare Provider BLS certification.
Components: Clinical
Attributes: Technical

PSG 133(3) Course ID: 007064
Pathologies of Sleep and Related Disorders
Addresses all of the aspects of sleep scoring and event recognition, instrumentation setup and calibration, recording and monitoring techniques, documentation, professional issues, therapeutic interventions, and patient-technologist interactions related to polysomnography. Clinical: 3 credits (180 contact hours). Prerequisite: PSG 115 with a grade of "C" or better, or consent of the instructor. Also Healthcare Provider BLS certification.
Components: Clinical
Attributes: Technical

PSJ 110(3) Course ID: 005067
Jewelry/Metals I
Introduces the tools, techniques, and materials of the professional jeweler/metalsmith with an emphasis on the design and production of jewelry projects in precious metals. The basic development of jewelry bench skills, and the discussion of business practices. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>005068</td>
<td>PSJ 115(3)</td>
<td>Jewelry/Metals II: Continues PSJ 110 and a further introduction to the tools, techniques, and materials of the professional jeweler/metalsmith. Emphasizes working more 3-dimensionally and with greater complexity through the design and completion of jewelry projects. Prerequisite: PSJ 110 or Consent of Instructor. Lab: 3.0 credits (90 contact hours). Components: Laboratory Attributes: Technical</td>
</tr>
<tr>
<td>005069</td>
<td>PSJ 116(3)</td>
<td>Ancient Techniques: Introduces the history, methods and techniques of metalsmithing from antiquity through the 14th century. Emphasizes metalsmithing traditions and classic techniques through the design and completion of jewelry projects and assignments incorporating ancient methods. Prerequisite: PSJ 110 or Consent of Instructor. Lab: 3.0 credits (90 contact hours). Components: Laboratory Attributes: Technical</td>
</tr>
<tr>
<td>005070</td>
<td>PSJ 117(2)</td>
<td>Metal Casting/Finishing Techniques: Provides the intermediate level jewelery/metalsmithing student with experiences in the design, modeling, and studio production of three-dimensional objects by the direct mold and waste mold methods of casting precious metal. Prerequisite: PSJ 110 or Consent of Instructor. Lab: 2.0 credits (60 contact hours). Components: Laboratory Attributes: Technical</td>
</tr>
<tr>
<td>005071</td>
<td>PSJ 210(3)</td>
<td>Jewelry/Metals III: Provides an in-depth investigation into tools, techniques, and materials of the professional jeweler/metalsmith, including the application of coloring through enameling and alternative means. Prerequisite: PSJ 115 and PSJ 117 or Consent of Instructor. Lab: 3.0 credits (90 contact hours). Components: Laboratory Attributes: Technical</td>
</tr>
<tr>
<td>005072</td>
<td>PSJ 211(3)</td>
<td>Hollowware and Metal Forming: Covers design and technical processes creating functional hollowware. Emphasizes dimensional forming of sheet metal through raising, sinking, planishing and anticlastic forming. Prerequisite: PSJ 115 or Consent of Instructor. Lab: 3.0 credits (90 contact hours). Components: Laboratory Attributes: Technical</td>
</tr>
<tr>
<td>005073</td>
<td>PSJ 212(2)</td>
<td>Metallurgy of Precious Metals: Covers properties and characteristics of precious metals and their alloys. Emphasizes the science of metallurgy and its practical application for the professional jeweler/metalsmith. Prerequisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Lab: 2.0 credits (60 contact hours). Components: Laboratory Attributes: Technical</td>
</tr>
<tr>
<td>005074</td>
<td>PSJ 215(3)</td>
<td>Jewelry/Metals IV: Includes an in-depth investigation on production methods and techniques of the professional jeweler/metalsmith. Prerequisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Lab: 3.0 credits (90 contact hours). Components: Laboratory Attributes: Technical</td>
</tr>
<tr>
<td>005075</td>
<td>PSJ 216(3)</td>
<td>Stone Setting: Covers advanced stone setting methods and techniques for the professional jeweler/metalsmith. Prerequisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours). Components: Laboratory Attributes: Technical</td>
</tr>
<tr>
<td>005076</td>
<td>PSJ 220(2)</td>
<td>Jewelry/Metals Product Development: Explores product development and the business concerns of the professional jeweler/metalsmith. Prerequisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Pre-requisite Or Co-requisite: PSJ 215. Laboratory: 2.0 credits (60 contact hours). Components: Laboratory Attributes: Technical</td>
</tr>
</tbody>
</table>
PSM 231(3) Course ID: 005560
Bluegrass & Traditional Music History III: Early Stringband & Country Music
Provides an in-depth study of early stringband, country music and promotion pioneers, focusing on the role of early radio and barndances. Prerequisite: PSM 121 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PSM 235(2) Course ID: 005561
Recording III
Provides an in-depth study of computer and Pro Tools software, recording techniques and applications. Prerequisite: PSM 125 or Consent of Instructor. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

PSM 238(2) Course ID: 005562
Songwriting III
Provides guidance through the process of creating and refining original melodies, lyrics and music under the direction of a professional songwriter, emphasizing writing for specific media and multi-writer collaboration. Prerequisite: PSM 126 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

PSM 241(3) Course ID: 005563
Bluegrass & Traditional Music History IV: The Masters & Their Music
Provides a comprehensive study of the music and careers of the iconic figures in bluegrass & traditional music from 1936 to present. Requires listening to recordings, reading the primary text, and reading suggested articles from industry periodicals. Prerequisite: PSM 231. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

PSM 245(2) Course ID: 005564
Recording IV
Provides an advanced and complex study of recording, mixing and editing software session data to finished products. Prerequisite: PSM 235 or Consent of Instructor. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory

PSM 248(2) Course ID: 005565
Songwriting IV
Provides guidance through the process of creating an effective demo and marketing original songs under the direction of a professional songwriter, emphasizing the completed demo project. Prerequisite: PSM 238 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSW 201(3) Course ID: 005567
Instructor Consent Required
Field Experience/Production/Business
Designed to give a wide variety of practical, hands-on work experience in the bluegrass and traditional music field. (Companion course to PSM 240). Prerequisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

PSW 111(3) Course ID: 005568
Introduction to Furniture Making
Introduces tools, techniques, and materials of the professional woodworker, focusing on actual studio production and design processes in wood and furniture. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PSW 115(3) Course ID: 005569
Furniture Making II
Focuses on the application of complex joinery, design features, and finishing techniques to a given furniture project. Explores historical perspectives and business related topics. Prerequisite: PSW 111 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PSY 110(3) Course ID: 005563
General Psychology
Introduces the history, methods and content of modern psychology. Covers the history and systems of psychology, psychological research, physiological psychology, psychological processes, developmental psychology, personality, abnormal behavior and social psychology. Prerequisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of Transitional reading course(s).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

PSY 180(3) Course ID: 000151
Human Relations
Explores the sociological and psychological forces that affect interpersonal relationships as individuals work and live together. Prerequisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of Transitional reading course(s).
Components: Lecture
Attributes: SB - Social Behavior Science

PSY 181(1) Course ID: 000312
Leadership Development
Prepares student leaders to lead small peer groups. Emphasizes study skills, oral/written communication skills, various tutoring techniques, and leadership skills. Prerequisite: ACT, COMPASS, or ASSET scores for college reading and writing or completion of Transitional reading and writing course(s); GEN 100 and/or consent of instructor. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other

PSY 185(3) Course ID: 000602
Human Potential
Introduces the principles of relating to self and others and focuses upon self-growth. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

PSY 188(1) Course ID: 000604
Directed Undergraduate Reading in Psychology
Explores in-depth a specific topic related to the student's personal or career interests in psychology under the direction of a faculty member. Reading proposal must be approved by instructor. Prerequisite: PSY 110 and consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Other

PSY 189(1 - 2) Course ID: 000606
Directed Undergraduate Research in Psychology
Requires students to design and conduct an elementary research project relevant to the student's personal or career interests in psychology under the direction of a faculty member. Requires development of a psychology literature review. Research proposal must be approved by instructor. Prerequisite: PSY 213 and consent of instructor (If PSY 215 is changed to PSY 213 Research Methods) Laboratory: 1.0 - 2.0 credits (30-60 contact hours).
Components: Laboratory
Attributes: Other

PSY 195(1) Course ID: 005749
Orientation to Psychology
Orients students who plan to major in psychology at a four-year institution to the educational issues and potential career and employment opportunities. Discusses career paths and employment opportunities, professional resources and issues, and educational planning. Prerequisite: Declared major in Psychology, or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Other

Course Descriptions
PSY 212(4) Course ID: 002256
Applications of Statistics in Psychology
Introduces students to descriptive and inferential statistics in design, analysis, and interpretation of psychological research. Prerequisite: ACT, COMPASS, or ASSET score for college level mathematics or completion of Transitional math course(s); PSY 110. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Attributes: Other

PSY 213(4) Research Methods
Course ID: 002255
Research Methods
Applies scientific methods to psychological research. Provides practical experience in designing and executing a research project using observational, survey, and/or true experimental design methodologies. Requires application of descriptive and inferential statistics and written report of research project results. Prerequisite: PSY 110. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Attributes: Other

PSY 223(3) Developmental Psychology
Course ID: 000487
Components: Lecture
Abilities: SB - Social Behavior Science, Course Also Offered in Modules
PSY 230(3) Course ID: 000387
Psychosocial Aspects of Death and Dying
Examines the biophysiological, psychological, sociological, and cultural aspects of death and dying in the evolving global world. Explores variations in the behaviors and attitudes associated with death, dying, and bereavement, with particular attention to the contexts (e.g., cultural, familial, historical, life-span developmental) in which these variations occur. Prerequisite: PSY 110 or SOC 101, or consent of instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

PSY 297(3) Course ID: 004818
Psychology of Aging
Provides an overview of the demographics of aging, theories of aging and research methods used to study adult development. Examines the biological, psychological and social impact of aging, longevity work, retirement, death and bereavement. Prerequisite: PSY 110 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

PSY 288(3) Course ID: 004819
Essentials of Abnormal Psychology
Provides an overview of the theories, diagnoses, and treatments of psychological disorders. Covers the biological, psychological, and social factors that influence the etiology, understanding, and management of psychopathology within society. Prerequisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

PSY 291(1 - 3) Course ID: 000534
Special Introductory Topics in Psychology
Course ID: 006215
Foundations of Psychology
Introduces the history, methods, and content of modern psychology to include the systems of psychology, psychological research, and physiological psychology. Prerequisite: ACT, COMPASS, or ASSET score for college level reading OR completion of Transitional reading course(s). Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture

PSY 1102(0.6) Course ID: 006216
Senses, Perception and Emotion
Addresses the history, methods, and content of modern psychology to include physical psychology and psychological processes. Prerequisite: PSY 1101. Lecture: 0.6 credit (9.0 contact hours).
Components: Lecture

PSY 1103(0.6) Course ID: 006217
Learning, Memory, Intelligence
Addresses the history, methods, and content of modern psychology to include psychological processes. Prerequisite: PSY 1102. Lecture: 0.6 credit (9.0 contact hours).
Components: Lecture

PSY 1104(0.6) Personality & Social Aspects
Addresses the history, methods, and content of modern psychology to include developmental psychology. Prerequisite: PSY 1103. Lecture: 0.6 credit (9.0 contact hours).
Components: Lecture

PSY 1105(0.6) Psychological Disorders
Addresses the history, methods, and content of modern psychology to include abnormal psychology and psychological processes. Prerequisite: PSY 1104. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture

PSY 2231(0.6) Foundations of Development
Introduces the principles of developmental psychology with emphasis on theory and data relating to the physical, psychological, and socio-cultural developmental aspects. Explores prenatal development through the birth process. Prerequisite: PSY 110. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 2232(0.6) Infancy through Early Childhood
Emphasizes theory and data relating to the physical, psychological, and socio-cultural developmental aspects of infancy, toddlerhood, and early childhood. Prerequisite: PSY 2231. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 2233(0.6) Middle Childhood & Adolescence
Emphasizes theory and data relating to the physical, psychological, and socio-cultural developmental aspects of middle childhood and adolescence. Prerequisite: PSY 2232. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 2234(0.6) Emerging and Middle Adulthood
Emphasizes theory and data relating to the physical, psychological, and socio-cultural developmental aspects of emerging and middle adulthood. Prerequisite: PSY 2233. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 2235(0.6) Late Adulthood; Death & Dying
Emphasizes theory and data relating to the physical, psychological, and socio-cultural developmental aspects of late adulthood. Explores issues related to death and bereavement. Prerequisite: PSY 2234. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 1101(0.6) Foundations of Psychology
Introduces the history, methods, and content of modern psychology to include the systems of psychology, psychological research, and physiological psychology. Prerequisite: ACT, COMPASS, or ASSET score for college level reading OR completion of Transitional reading course(s). Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture

PSY 1102(0.6) Senses, Perception and Emotion
Addresses the history, methods, and content of modern psychology to include physical psychology and psychological processes. Prerequisite: PSY 1101. Lecture: 0.6 credit (9.0 contact hours).
Components: Lecture

PSY 1103(0.6) Learning, Memory, Intelligence
Addresses the history, methods, and content of modern psychology to include psychological processes. Prerequisite: PSY 1102. Lecture: 0.6 credit (9.0 contact hours).
Components: Lecture

PSY 1104(0.6) Personality & Social Aspects
Addresses the history, methods, and content of modern psychology to include developmental psychology. Prerequisite: PSY 1103. Lecture: 0.6 credit (9.0 contact hours).
Components: Lecture

PSY 1105(0.6) Psychological Disorders
Addresses the history, methods, and content of modern psychology to include abnormal psychology and psychological processes. Prerequisite: PSY 1104. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture

PSY 2231(0.6) Foundations of Development
Introduces the principles of developmental psychology with emphasis on theory and data relating to the physical, psychological, and socio-cultural developmental aspects. Explores prenatal development through the birth process. Prerequisite: PSY 110. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 2232(0.6) Infancy through Early Childhood
Emphasizes theory and data relating to the physical, psychological, and socio-cultural developmental aspects of infancy, toddlerhood, and early childhood. Prerequisite: PSY 2231. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 2233(0.6) Middle Childhood & Adolescence
Emphasizes theory and data relating to the physical, psychological, and socio-cultural developmental aspects of middle childhood and adolescence. Prerequisite: PSY 2232. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 2234(0.6) Emerging and Middle Adulthood
Emphasizes theory and data relating to the physical, psychological, and socio-cultural developmental aspects of emerging and middle adulthood. Prerequisite: PSY 2233. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 2235(0.6) Late Adulthood; Death & Dying
Emphasizes theory and data relating to the physical, psychological, and socio-cultural developmental aspects of late adulthood. Explores issues related to death and bereavement. Prerequisite: PSY 2234. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PTA 120(2) Basic Skills for the PTA
Course ID: 006723
Introduces basic concepts of health and disease and introductory patient care skills. Includes orientation to the profession of physical therapy, legal aspects of physical therapy practice, and introductory patient-care skills such as aseptic technique; body mechanics; safety procedures; wheelchair management; patient transfers; positioning and draping; gait training, patient and consumer education. Pre-requisite: Admission to the PTA Program and completion of BIO 137 with a grade of “C” or better. Co-requisite: PTA 125. Lecture: 2.0 credits (30 contact hours). Lab: 3.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

PTA 121(2) Basic Skills for the PTA Lab
Course ID: 006724
Develops introductory patient-care skills such as communication; safety procedures; aseptic technique; body mechanics; wheelchair management; patient transfers; positioning and draping; gait training; pain assessment; passive, active, and active-assisted exercise and stretching. Pre-requisite: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: PTA 1501, PTA 1502, PTA 121, PTA 170. Lab: 2 credits (60 contact hours).
Components: Lab

PTA 125(1) Orientation to Physical Therapy Practice
Course ID: 007370
Neuroanatomy for the PTA
Encompasses the neuroanatomy of the central and peripheral nervous systems and applies these concepts to common neurological pathologies found in rehabilitation. Pre-requisite: Admission to the PTA Program and completion of BIO 137 with a grade of “C” or better. Co-requisite: PTA 101. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

PTA 150(6) Functional Anatomy and Kinesiology
Course ID: 004174
Emphasizes the structure and function of the musculoskeletal system, the relationship with biomechanical principles, basic physical principles, and the mechanical aspects of human motion. Includes muscle testing, flexibility testing, goniometry, and aspects of normal gait and posture. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 & PTA 125 with a grade of "C" or better.] OR [Pathway 2: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a grade of "C" or better]. Co-requisite: [Pathway 1: PTA 160 and PTA 170] OR [Pathway 2: PTA 120, PTA 121 and PTA 170]. Lecture: 3.0 credits (45 contact hours). Lab: 3.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Also Offered in Modules, Technical
P20A(5) | Course ID: 004016

**Physical Therapy Principles & Procedures**

Emphasizes selected physical therapy interventions and data collection for management of patients with the following problems: musculoskeletal conditions, pulmonary diseases, respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric disorders; infectious diseases; oncology; thermal injuries, arthritis, amputations and cardiac diseases. Includes therapeutic exercise, orthotics, prosthetics, wellness, and women's health issues. Prerequisite: Admission to the PTA Program and completion of PTA 150 and 160 with a grade of "C" or better; PTA 170 with a grade of P; all general education courses required for completion of the Physical Therapist Assistant program with a grade of "C" or better. Co-requisite: PTA 222, PTA 232, PTA 203, PTA 240, and PTA 203 with a grade of "C" or better. PTA 240 and PTA 203 with a grade of P. Co-requisite: PTA 222, PTA 223, PTA 232, PTA 203, and PTA 203 and PTA 240. Students cannot progress to PTA 240 without a grade of "C" or better in all other co-requisite courses. Lab: 2 credits (30 contact hours).

Components: Lecture

Attributes: Technical

P22A(2) | Course ID: 006727

**Pathology & Rehabilitation of Orthopedic Conditions**

Focuses on etiology, pathology, prevention, data collection, and selected physical therapy interventions for management of patients of all age groups with disabilities resulting from: brain injury, spinal cord injury, and genetic/ congenital disorders. Includes balance disorders, normal growth and development, and the rationale and techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program and completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a "C" or better. Completion of PTA 170 with a grade of P. Co-requisite: PTA 222, PTA 232, PTA 233, and PTA 240, and PTA 203 and PTA 240. Students cannot progress to PTA 240 without a grade of "C" or better in all other co-requisite courses. Lecture: 2 credits (30 contact hours).

Components: Lecture

Attributes: Technical

P22A(2) | Course ID: 006728

**Pathology & Rehabilitation of Orthopedic Conditions Lab**

Develops skills in selected physical therapy interventions and data collection for management of patients with the following problems: musculoskeletal conditions, pathological gait, arthritis, and amputations. Includes therapeutic exercise, orthotics, prosthetics, and supportive devices. Pre-requisite: Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a C or better. Completion of PTA 170 with a grade of P. Co-requisite: PTA 222, PTA 232, PTA 233, and PTA 240. Students cannot progress to PTA 240 without a grade of "C" or better in all other co-requisite courses. Lab: 2 credits (30 contact hours).

Components: Lecture

Attributes: Technical

P22A(2) | Course ID: 006729

**Pathology & Rehabilitation of Neurological & Pediatric Conditions**

Focuses on etiology, pathology, progression, prevention, data collection, and selected physical therapy interventions for management of patients of all age groups with disabilities resulting from the following: brain injury, spinal cord injury, and genetic/congenital disorders. Includes balance disorders, normal growth and development, and the rationale and techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program and completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a "C" or better. Completion of PTA 170 with a grade of P. Co-requisite: PTA 222, PTA 232, PTA 233, and PTA 240. Students cannot progress to PTA 240 without a grade of "C" or better in all other co-requisite courses. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

P23A(2) | Course ID: 006730

**Pathology & Rehabilitation of Neurological & Pediatric Conditions Lab**

Develops skills in the application of selected physical therapy interventions for patients of all age groups with disabilities resulting from the following: brain injury, spinal cord injury, genetic/congenital, and balance disorders. Includes techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a C or better. Completion of PTA 170 with a grade of P. Co-requisite: PTA 222, PTA 223, PTA 232, PTA 202, and PTA 203, and PTA 240. Students cannot progress to PTA 240 without a grade of "C" or better in all other co-requisite courses. Lab: 2 credits (60 contact hours).

Components: Laboratory

Attributes: Technical

P23A(2) | Course ID: 006731

**Pathology & Rehabilitation of Special Populations & Conditions**

Focuses on etiology, pathology, prevention, data collection, and selected physical therapy interventions for management of patients with the following conditions: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric disorders; infectious diseases; oncology; thermal injuries, integumentary disorders, and wounds. Includes therapeutic exercise and wound care. Pre-requisite: PTA 222, PTA 223, PTA 232, PTA 202, and PTA 203 and PTA 240. Students cannot progress to PTA 240 without a grade of "C" or better in all other co-requisite courses. Lecture: 1 credit (15 contact hours).

Components: Lecture

Attributes: Technical
PTA 255(1)
Course ID: 006732
Pathology & Rehabilitation of Special Populations & Conditions Lab
Develops skills in the application of selected physical therapy interventions for patients with the following conditions: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric disorders; infectious diseases; oncology; thermal injuries; intermuscular disorders; and wounds. Includes therapeutic exercise and wound care. Pre-requisite: PTA 222, PTA 223, PTA 233, PTA 202, and PTA 203 with a C or better. Completion of PTA 240 with a grade of P. Co-requisite: PTA 254, PTA 260, and PTA 280. Students cannot progress to PTA 280 without a grade of "C" or better in all co-requisite courses. Lab: 1 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

PTA 256(2)
Course ID: 016884
Pathology & Rehabilitation of Special Populations and Conditions
Emphasizes the etiology, pathology, prevention, data collection, and selected physical therapy interventions for management of patients with the following conditions: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric disorders; infectious diseases; oncology; thermal injuries; intermuscular disorders; and wounds. Includes therapeutic exercise and wound care. Lecture: 2.0 credits (30 contact hours).
Components: Lecture

PTA 260(2)
Course ID: 004172
Seminar in Physical Therapy
Presents topics to assist the student in the transition to physical therapist assistant including trends, specialized practice, patient services, and the employment process. Utilizes case studies to assist students to integrate theory and practice. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of: PTA 200 and 220 with a grade of "C" or better and PTA 240 with a grade of P] OR [Pathway 2: PTA 202, PTA 203, PTA 222, PTA 223, PTA 232, and PTA 233 with a grade of "C" or better. Completion of PTA 240 with a grade of P] Co-requisite: [Pathway 1: PTA 250, PTA 254, PTA 255, and PTA 260. Students cannot progress to PTA 280 without a grade of "C" or better in all co-requisite courses.] Pre-requisite Or Co-requisite: [Pathway 1: PTA 280, if taken as a prerequisite to PTA 280, must earn a C or better for PTA 260.] Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PTA 280(5)
Course ID: 004020
Clinical Practicum III
Includes clinical observation and practice of physical therapy interventions and data collection with the application of knowledge from previous and concurrent PTA courses and general education coursework. By the end of the clinical experience the student will demonstrate an entry level of practice. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of: PTA 200 and 220 with a grade of "C" or better and PTA 240 with a grade of P] OR [Pathway 2: PTA 202, PTA 203, PTA 222, PTA 223, PTA 232, and PTA 233 with a grade of "C" or better. Completion of PTA 240 with a grade of P] Co-requisite: [Pathway 2: PTA 254, PTA 255, and PTA 260. Students cannot progress to PTA 280 without a grade of "C" or better in all co-requisite courses.] Pre-requisite Or Co-requisite: [Pathway 1: PTA 280, if taken as a prerequisite to PTA 280, must earn a C or better for PTA 260.] Lecture: 5 credits (400 contact hours).
Components: Practicum
Attributes: Technical

PTA 1501(3)
Course ID: 006721
Functional Anatomy and Kinesiology Lab
Develops selected data collection techniques in physical therapy, including: gross motor muscle testing, flexibility, sensory integrity, reflex testing, and postural assessment. Lab experiences will reflect concepts taught in paired lecture course. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 and PTA 125 with a grade of "C", or better] OR [Pathway 2: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better.] Co-requisite: [Pathway 1: PTA 180, PTA 170 and PTA 1502] OR [Pathway 2: PTA 120, PTA 121, PTA 1502 and PTA 170]. Lab: 3 credits (90 contact hours).
Components: Laboratory

PTA 1502(3)
Course ID: 006722
Functional Anatomy and Kinesiology Lecture
Provides knowledge related to the structure and function of the musculoskeletal system, the relationship with biomechanical principles, basic physical principles, and the mechanical aspects of human motion. Includes principles of muscle testing, flexibility testing, goniometry, and aspects of normal gait and posture. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 & PTA 125 with a grade of "C" or better.] OR [Pathway 2: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a C or better.] Co-requisite: [Pathway 1: PTA 160, PTA 170 & PTA 1501] OR [Pathway 2: PTA 120, PTA 121, PTA 1501 and PTA 170.] Lecture: 3 credits (45 contact hours).
Components: Lecture

QMS 101(3)
Course ID: 004464
Introduction to Quality Systems
Students are introduced to fundamental concepts, principles, and practices used to improve quality in organizations. The need for organizational change is reviewed and paradigms of quality are introduced. An overview of areas of change, methods of quality planning, and methods for implementing quality policies are provided. Students will practice problem solving techniques, make decisions based on data, work in teams, troubleshoot, and demonstrate knowledge of implementing continuous improvement processes. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

QMS 201(3)
Course ID: 004465
Customer Service Improvement Skills
Students will develop cognitive processes and behavioral skills needed to improve personal and work group effectiveness. Techniques are discussed and demonstrated in assessing internal and external customer needs and develop plans for delivery of quality customer service. Topics include customer's point of view, benchmarking quality customer service processes, developing partnerships with customers, measuring customer satisfaction, self-evaluation, personal mission statements, time management, communication and listening techniques, coaching, group problem solving, and decision making techniques. Lecture: 3 credits (45 contact hours). Prerequisite: QMS 101 or Consent of Instructor.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

QMS 202(3)
Course ID: 000869
Performance Management
Students are introduced to a systematic, data-oriented approach to managing people for maximizing performance and quality. Data are used to measure and evaluate effectiveness of performance. Organizational and individual behavior will be studied in the context of increasing performance and productivity. Lecture: 3 credits (45 contact hours). *M*
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

QMS 210(3)
Course ID: 004283
Lean Processes
Introduces the concepts and skills of lean manufacturing for process and service settings. Covers organizational readiness, SS, value stream mapping, kaizen, and visual workplace. Examines the implementation of processes. Prerequisite: QMS 101 or Consent of Instructor and MA 109 or MT 150. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

QMS 212(3)
Course ID: 004284
Project Management
Provides insight into concepts and skills required to design the infrastructure for the successful planning, scheduling, and launching of a project. Promotes skills necessary to improve coordination of organizational resources, create effective teams, operate efficiently in a rapidly changing world, and minimize internal problems of system start ups. Teaches techniques to gain organizational acceptance for projects. Prerequisite: QMS 101 or Consent of Instructor. Lecture: 3 Credits (45 contact hours).
Components: Lecture
Attributes: Technical

QMS 220(3)
Course ID: 004466
Quality Audits
Involves an in-depth examination of the function of planning, organizing, and conducting quality audits. Emphasizes planning, implementing, and reporting results of quality audits and taking corrective action. Prerequisite: QMS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

QMS 240(3)
Course ID: 004467
Statistics for Quality I
Introduces methods of organizing information about processes. Examines presentation, description, and analysis of data. Emphasizes handling and interpreting numerical information, including histograms and control charts. Presents and applies concepts of probability to control charts to promote process understanding to improve quality of products and service. Investigates sampling principles. Uses computer generated analyses. Prerequisite: MA 109 or MT 150. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

QMS 251(3)
Course ID: 000668
Strategic Quality Planning
Introduces strategic concepts of planning as a proactive catalyst for organizational and quality improvement. Examines the process of envisioning, environmental scanning, mission formulation, and benchmarking. Promotes action planning and leadership for its implementation. Prerequisite: QMS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

QMS 259(1 - 6)
Course ID: 000537
Instructor Consent Required
Selected Topics in Quality Management Systems: (Topic)
Quality issues selected are considered in this course. Topics vary from semester to semester. Course may be repeated with different topics for a maximum of 6 credit hours. Lecture: 1-3 credits (15-45 contact hours). Prerequisite: Consent of Instructor.
Components: Lecture
QMS 1011(0.6) Course ID: 005165
Understanding a Quality Focused Organization
Past quality initiatives and progressive quality trends. Lecture: 0.6 credits (9 contact hours)
Components: Lecture
QMS 1012(0.6) Course ID: 005166
Quality Tools of the Trade
Quality improvement tools and techniques and their integration into an organization. Prerequisite: QMS 1011 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 1013(0.6) Course ID: 005167
Systems for Quality Improvement
Integrated quality systems and operations that produce high levels of employee and extra-organizational commitment. Prerequisite: QMS 1012 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 1014(0.6) Course ID: 005168
Quality Planning for Continuous Improvement
Organizational-wide planning techniques and processes focused on business quality improvement. Prerequisite: QMS 1013 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 1015(0.6) Course ID: 005169
People Power: The Key to Quality Improvement
Maximizing the capabilities of people by creating a fun and positive work environment. Prerequisite: QMS 1014 or consent of instructor. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
QMS 2021 Course ID: 005170
Introduction to Performance Management
The value and variety of feedback and its relationship to goal setting as the foundation of performance management. Prerequisite: QMS 2024 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 2022 Course ID: 005171
Reinforcement Schedules and Unwanted Behavior
A variety of reinforcement schedules will be introduced and a number of procedures will be analyzed in dealing with unwanted behavior. Prerequisite: QMS 2022 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 2023 Course ID: 005172
Reinforcement Schedules and Unwanted Behavior
A variety of reinforcement schedules will be introduced and a number of procedures will be analyzed in dealing with unwanted behavior. Prerequisite: QMS 2022 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 2024 Course ID: 005173
Pinpoints and Measurement
Fundamentals of pinpointing, identifying a job’s mission, and understanding effective measurement. Prerequisite: QMS 2023 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 2025 Course ID: 005174
Feedback, Goals, and Applying Performance Management
The value and variety of feedback and its relationship to goal setting as the foundation of performance management. Prerequisite: QMS 2024 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
RCP 175(3) Course ID: 003791
Clinical Practice II
Provides an opportunity to participate in the health care team while practicing techniques of respiratory care including airway management and bronchial hygiene in the assigned setting. Prerequisite: RCP 150 with a grade of "C" or better; Clinical: 3 credits (180 contact hours).
Components: Clinical Attributes: Technical

RCP 176(2) Course ID: 004834
Respiratory Care Practice II
Emphasizes participation in the health care team while practicing techniques of basic respiratory care including airway management and bronchial hygiene Prerequisite: [(RCP 110 and RCP 122 and RCP 130) with a grade of "C" or better] or consent of instructor. Prerequisite or Corequisite: RCP140 (If taken as a pre-requisite, a grade of "C" or better is required.) Clinical: 2 credits (120 contact hours).
Components: Clinical Attributes: Technical

RCP 180(3) Course ID: 003792
Ventilatory Support
Covers the technological and physiological aspects of mechanical ventilation including the theory of operation, classification, and management of the patient ventilator system. Prerequisite: RCP 120 and RCP 150 with a grade of "C" or better. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 185(2) Course ID: 004837
Introduction to Mechanical Ventilation
Introduces the technological aspects of mechanical ventilation including the theory of operation, classification and patient-ventilator system checks. Prerequisite: [RCP 140 and RCP 176] with a grade of "C" or better; Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 190(2) Course ID: 003793
Advanced Ventilatory Support
Addresses advanced concepts in ventilatory support, including physiologic effects, indications, monitoring and management of the patient-ventilator system. Prerequisite: RCP 180 with a C or better. Lecture: 1.5 credits (22.5 contact hours); Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 195(4) Course ID: 004838
Patient-Ventilator System Management
Addresses advanced concepts in ventilatory support including monitoring and management of the patient-ventilator system. Prerequisite: [(RCP 185 and RCP 201) with a grade of "C" or better] or consent of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 200(3) Course ID: 003794
Clinical Practice III
Provides practice in adult mechanical ventilation procedures and airway management in the critical care setting and performance of other respiratory care skills. Prerequisite: RCP 175 with a grade of "C" or better. Clinical: 3 credits (180 contact hours).
Components: Clinical Attributes: Technical

RCP 201(2) Course ID: 004836
Respiratory Care Practice III
Provides practice in adult mechanical ventilation procedures and airway management in the critical care setting in addition to continued performance of the basic respiratory care skills. Prerequisite: [(RCP 140 and RCP 176) with a grade of "C" or better] or Consent of Instructor. Clinical: 2 credits (120 contact hours).
Components: Clinical Attributes: Technical

RCP 204(3) Course ID: 003795
Emergency & Special Procedures
Prepares students to participate in advanced emergency life support and special procedures. Prerequisite or Corequisite: [(RCP 130 and BIO 139) with a grade of "C" or better] or Consent of Instructor: Lecture: 2.5 credits (37.5 contact hours); Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 210(3) Course ID: 003796
Cardiopulmonary Pathophysiology
Addresses the etiology, diagnosis, clinical manifestations and management of cardiopulmonary disorders as related to respiratory care including the fundamental microbiological principles and their relation to health and disease. Prerequisite: [RCP 110 or (RCP 201 and RCP 185)] with a grade of "C" or better or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

RCP 212(3) Course ID: 003797
Neonatal/Pediatric Respiratory Care
Provides a study of the special needs of the neonatal and pediatric patient with focus on fetal cardiopulmonary development, evaluation, assessment and treatment of cardiopulmonary conditions and diseases of the neonatal and pediatric patient, as well as equipment unique to this population. Prerequisite: [(RCP 185 and RCP 201) with a grade of "C" or better] or Consent of Instructor. Prerequisite or Corequisite: RCP 190 with a grade of "C" or better; Consent of Instructor: Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 214(3) Course ID: 003798
Advanced Diagnostic Procedures
Prepares students to assist physician in advanced diagnostic, and therapeutic procedures. Prerequisite: BIO 139 with a grade of "C" or better. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 225(3) Course ID: 003799
Clinical Practice IV
Provides observation and practice of advanced cardiopulmonary evaluation techniques while improving efficiency in the ventilatory management of patients. Prerequisite: RCP 200 with a grade of "C" or better. Clinical: 3 credits (180 contact hours).
Components: Clinical Attributes: Technical

RCP 226(4) Course ID: 004841
Respiratory Care Practice IV
Provides observation and practice in advanced cardiopulmonary evaluation techniques while improving efficiency in the ventilatory management of adult patients. Prerequisite: [RCP 176 and RCP 185] with a grade of "C" or better] or Consent of Instructor: Clinical: 4 credits (240 contact hours).
Components: Clinical Attributes: Technical

RCP 245(2) Course ID: 004845
Advanced Cardiac Life Support
Focuses on managing acute cardiovascular emergencies including cardiac arrest, acute myocardial infarction and stroke. Students demonstrating essential knowledge and skills and obtaining 85% or greater on the written exam will receive an American Heart Association ACLS provider card. Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 250(3) Course ID: 003801
Clinical Practice V
Prepares students to participate in effective and efficient planning, managing and delivering respiratory care to diverse client populations in various settings. Prerequisite: RCP 225 with a grade of "C" or better. Clinical: 3 credits (180 contact hours).
Components: Clinical Attributes: Technical

RCP 251(4) Course ID: 004843
Respiratory Care Practice V
Prepares students to plan, manage, and deliver respiratory care to diverse client populations in various settings. Enables students to practice mechanical ventilation techniques and observe/practice techniques of advanced life support. Prerequisite: [(RCP 195 and RCP 210 and RCP 212 and RCP 226) with a grade of "C" or better] or Consent of Instructor: Clinical: 4 credits (240 contact hours).
Components: Clinical Attributes: Technical

RCP 260(1) Course ID: 004846
Respiratory Care Seminar
Analyzes material previously studied in the program and prepares students for the National Board for Respiratory Care examination. Addresses job seeking skills. Prerequisite: [(RCP 200 and RCP 210 and RCP 212 and RCP 225) with a grade of "C" or better] or Consent of Instructor: Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

RDG Reading

RDG 20(3) Course ID: 002286
Improved College Reading
Improves proficiency in reading comprehension, vocabulary, and critical thinking skills, and prepares students for college and career reading through individualized and/or group instruction practice. Prerequisite: As determined by KCTCS Placement Policy. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Remedial - Reading, Course Also Offered in Modules

RDG 30(3) Course ID: 002287
Reading for the College Classroom
Improves critical reading skills by developing vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in text. Applies theories and strategies taught in the course to college and career reading materials. Prerequisite: As determined by KCTCS Placement Policy, or successful completion of RDG 020. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Remedial - Reading, Course Also Offered in Modules
**RDG 41(1)** Course ID: 006805
**Reading Laboratory**
Designed to improve reading comprehension, vocabulary, and critical thinking skills. Strategies taught in this course will be applied to college level materials. Pre-requisite: Compass score 81-83. Lab: 1.0 credit (15 contact hours).
Components: Laboratory
Attributes: Remedial - Reading

**RDG 96(4)** Course ID: 016767
**Introduction to College Reading**
Improves proficiency in reading comprehension, critical thinking skills, and critical reading skills by developing vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in text. Prepares students for college and career reading through individualized and/or group instruction and practice. Applies theories and strategies taught in the course to college and career reading materials. Pre-requisite: Current KCTCS placement policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - Reading

**RDG 100(2)** Course ID: 015658
**Reading Workshop**
Improves reading comprehension and vocabulary of expository materials by improving student’s comprehension processes and reading-related skills. Applies strategies and skills taught in the course are applied to college level materials. Pre-requisite: KCTCS Placement Policy: COMPASS score 70-84 or equivalent. Co-requisite: Paired with a content-rich course of study determined by Division Chair, Program Coordinator, or Faculty. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Other

**RDG 185(3)** Course ID: 000301
**College Reading**
Designed to improve critical reading, thinking, and writing at the college level by identifying the components of expository, persuasive, argumentative, and research text, including the author’s use of tone, purpose, biased language and writing patterns. Applies strategies to college level text. Pre-requisite: KCTCS Placement Policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

**RDG 0201(0.5)** Course ID: 006737
**Active Reading**
Applies active reading, metacognitive, self-evaluation, and reading rate strategies for proficiency in reading comprehension. Includes topics such as the reading process, self-monitoring and self-correcting comprehension, and adjusting reading strategies for various comprehension purposes. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
Attributes: Remedial - Reading

**RDG 0202(0.75)** Course ID: 006738
**Transitions, Thought Patterns**
Construct meaning from texts through analyzing transitions and patterns of organization to improve comprehension and critical thinking skills. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: .75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - Reading

**RDG 0203(1)** Course ID: 006739
**Basics of Argument**
Recognize basic argument components, analyze contradictions to prior learning, and draw valid conclusions about claims and supports for claims to improve critical reading and thinking skills. Use main ideas to accurately summarize texts. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Remedial - Reading

**RDG 0204(0.75)** Course ID: 006740
**Words and Visual Elements**
Expands vocabulary through examining word parts and context clues, and infers tone and purpose through word combinations. Constructs meaning from visual elements to improve comprehension of text. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: .75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - Reading

**RDG 0301(0.75)** Course ID: 006741
**Critical Reading**
Uses active learning, prior knowledge, and metacognitive strategies to quickly enhance comprehension. Uses active learning, prior knowledge, and self-assessment strategies to quickly enhance comprehension of text. Pre-requisite: As determined by KCTCS Placement Policy, or successful completion of RDG 020. Lecture: .75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - Reading

**RDG 0302(0.75)** Course ID: 006742
**Text Structures and Supports**
Analyzes text structures, paragraphs, longer passages, and arguments for central ideas, supporting examples, reasons, and evidence to construct meaning from text. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 020. Lecture: .75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - Reading

**RDG 0303(0.75)** Course ID: 006743
**Logic and Evidence**
Analyzes text for logical reasoning and valid supports to quickly detect key information in texts. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 020. Lecture: .75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - Reading

**RDG 0304(0.75)** Course ID: 006744
**Words and Visual Elements**
Construct meaning from word parts, context clues, connotation, and denotation for accurate comprehension of text. Evaluate word combinations to determine the author’s view, tone, and purpose for writing the texts. Infer meaning from visual elements such as diagrams, charts, and photos. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 020. Lecture:. 75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - Reading

**RDG 1851(0.75)** Course ID: 006933
**Critical Reading**
Apply Active Reading, Metacognitive processes and analyze common text structures and supporting details to improve basic critical reading skills. Pre-requisite: current KCTCS placement policy. Lecture: .75 (11.25 contact hours).
Components: Lecture
Attributes: Remedial - Reading

**RDG 1852(0.75)** Course ID: 006934
**Valid Supports**
Identify patterns of writing and discern facts from opinions to determine valid supports. Use patterns and valid supports to organize ideas for a summary or concept map. Pre-requisite: RDG 1852. Lecture: .75 (11.25 contact hours).
Components: Lecture
Attributes: Remedial - Reading

**RDG 1853(0.75)** Course ID: 006935
**Bias and Fallacies**
Interpret the author’s devices for expressing the writing purpose, point-of-view and bias in informative, persuasive, and literary texts. Use this information to draw valid inferences and analyze logical reasoning from various types of texts. Pre-requisite: RDG 1852. Lecture:. 75 credits (11.25 contact hours).
Components: Lecture

**RDG 1854(0.75)** Course ID: 006936
**Words and Visuals**
Construct meaning from vocabulary and visual elements, and use this information to summarize, map concepts, and paraphrase content to improve critical reading skills. Pre-requisite: RDG 1853. Lecture: .75 credits (11.25 contact hours).
Components: Lecture

**REA 100(3)** Course ID: 000906
**Real Estate Principles I**
Introduces real estate as a business and as a profession, designed to acquaint the student with the wide range of subjects necessary to the practice of real estate. Includes license law, ethics, purchase and listing agreements, brokerage, deeds, financing, appraisals, mortgages, and real estate property management. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**REA 120(3)** Course ID: 000365
**Real Estate Marketing**
Includes marketing and selling of real estate properties. Emphasizes qualifying prospects, preparing for property showing, negotiating the sale, developing a five-year goal plan, and managing time. Utilizes computer applications. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**REA 121(3)** Course ID: 000778
**Appraising**
Addresses appraising residential real estate for loans, estates, condemnations, and listings, and the factors that contribute to the value of real estate. Includes three methods of estimating value with emphasis given to the market data approach. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**REA 200(3)** Course ID: 000805
**Real Estate Principles II**
Continues Real Estate Principles I with emphasis on license law, finance, property management, marketing, land planning and development, brokerage management, fair housing, and appraising. Prerequisite: REA 100. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**REA 201(3)** Course ID: 000915
**Property Management**
Examines the basics of managing income-producing real property. Includes management plans, tenant selection, marketing and advertising, accounting methods, net operating income statements, maintenance, and the Landlord Tenant Act. Pre-requisite: REA 100. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**REA 202(3)** Course ID: 000875
**Real Estate Investments I**
Introduces various types of real estate investments. Includes a comparison of investments in real estate with other types of investments. Covers basic fundamentals of investment analysis and terminology. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

**REA 203(3)** Course ID: 000527
**Commercial and Industrial Property**
Covers classifications of commercial and industrial properties. Includes investment, environment, financing, taxes, depreciation, ownership, cash flow projection, and discount analysis. Integrates computer applications. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
REA 204(3) Course ID: 000825
Land Planning and Development
Includes the specialized field of land planning and development with emphasis on new home construction. Includes market research, site selection and analysis, regulations, financing, earthwork, streets, and landscaping. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

REA 205(3) Course ID: 000620
Farm Brokerage
Includes farm brokerage and specific subjects relating to the sale of farm property. Covers listing, prospecting, showing, financing, negotiating and closing the farm sale as well as the duties of the farm manager. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

REA 212(3) Course ID: 000194
Real Estate Investments II
Includes an analysis of operations and cash flow with detailed instruction on the use and calculation of internal rate of return, financial management rate of return, operational and feasibility analysis, and model investment projections. Pre-requisite: REA 202. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

REA 220(3) Course ID: 000886
Real Estate Brokerage Management
Includes basic real estate principles and theories as they apply to real estate brokerage management. Includes legal and work environment; brokerage management concepts; employment agreements; personnel selection, compensation, and management; policy manuals; listing and marketing management; and financial control. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

REA 221(1) Course ID: 004772
Basic Income Approach to Property Valuation
Provides students with a foundation in the concepts and procedures necessary in the appraisal of real estate income property. Explores how Gross Potential Income is obtained by market analysis and research, how and where to obtain all operating expenses being generated by an income-producing property, how to develop a reliable Capitalization Rate, and how to utilize Direct Capitalization Methods. Prerequisite: REA 121 or Appraiser's license. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

REA 222(1) Course ID: 004773
Uniform Standards of Professional Appraisal
Provides an understanding and appreciation of the Uniform Standards of Professional Appraisal Practice (USPAP) and how these standards set the minimum foundation on which both the development of an appraisal and the reporting of that appraisal must adhere and develop. Meets the pre-licensing and continuing education requirements of the Kentucky Real Estate Appraisers Board and the Appraisal Institute. Prerequisite: REA 121 or Appraiser's license. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

REA 225(3) Course ID: 000432
Real Estate Finance
Examines all aspects of real estate finance including financial institution, buyer qualifications, and mortgage markets. Includes governmental influence, risk analysis, and financing of income-producing properties. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

REA 230(3) Course ID: 000391
Real Estate Law
Examines the laws and regulations pertaining to real estate and related environmental issues. Includes ownership rights, title examination, planning and zoning, contracts of sale, Fair Housing regulations, agency issues, court systems and recent court decisions. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

REA 239(1 - 3) Course ID: 000541
Selected Topics in Real Estate: (Topic)
Includes topics to expand course offerings as new technology and information are developed, as well as to address local real estate needs. Covers various topics from semester to semester at the discretion of the instructor. (May be repeated to a maximum of six credit hours.) Prerequisite: Consent of instructor. Lecture: 1-3 credits (15 contact hours).
Components: Lecture

REL Religious Studies

REL 101(3) Course ID: 000916
Introduction to Religious Studies
Examines the varieties, differences, and similarities of religious experience and expression. Examines the interaction between religious experience and expression and social and cultural contexts through study of selected examples. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities, SB - Social Behavior Science

REL 120(3) Course ID: 005282
Introduction to the Old Testament
Introduces books of the Hebrew Bible (Old Testament) using knowledge of literary forms as well as historical and cultural backgrounds to aid in the interpretation of the religious and philosophical meanings of the text. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities

REL 121(3) Course ID: 005283
Introduction to the New Testament
Introduces New Testament using knowledge of literary forms as well as historical and cultural backgrounds to aid in the interpretation of the religious and philosophical meanings of the text. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities

REL 130(3) Course ID: 000360
Introduction to Comparative Religion
Introduces students to a comparative analysis of world religions, emphasizing beliefs, rituals, artistic expressions, and cultural and social organization. Includes both Eastern and Western religions. (Same as ANT 130). Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities

REL 135(3) Course ID: 007063
01-AUG-2014
Introduction to Comparative Christianity
Provides an overview of the history of Christianity and compares the major Christian faiths and movements, their formation, and the political and social influences that caused their development. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

REL 150(2) Course ID: 007409
Comparative Ethics of Major World Religions
Examines central theological teachings, modes of ethical reasoning, key ethical virtues and norms of major religious traditions from both Eastern and Western Religions. Considers the lives, sacred stories, dogma and texts of central religious figures as part of the context for moral thinking in a global setting. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

REL 170(3) Course ID: 005523
Philosophy of Religion
Examines students to issues in philosophy of religion including defining the concept of God, arguments for and against the existence of God, the relation between faith and reason, the nature of religious experience, the problem of evil, and immortality. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities, Other

REL 240(3) Course ID: 006945
Life and Teaching of Jesus
Investigates the life and teachings of Jesus of Nazareth through a critical analysis of the ancient sources and modern scholarly reconstructions. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Other

REL 241(3) Course ID: 006946
Life and Lectors of Paul
Examines the person and thought of the Apostle Paul in social, cultural, political, philosophical, and theological context. Investigates Paul's ethics and his views as preserved in the Christian New Testament. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Other

REL 298(3) Course ID: 006968
Special Topics in Religion: Topic
Examines special topics in Religion. Includes but not limited to individual religious figures, movements, sacred writings, religious traditions and selected eras. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Other

REL 1301(1) Course ID: 007323
Introduction to Religion
Examines the relationship between religion, society, and the individual. Explores basic precepts of world religions through their socio-cultural development. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

REL 1302(1) Course ID: 007324
Major Eastern Religions
Identifies belief systems and ritual expressions of major Eastern religions. Analyzes the impact on the individual and society. Pre-requisite: REL 1301. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

REL 1303(1) Course ID: 007325
Major Western Religions
Identifies belief systems and ritual expressions of major Western religions. Analyzes the impact on the individual and society. Pre-requisite: REL 1301. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

RES Respiratory Care

RES 299(1 - 6) Course ID: 003802
Selected Topics in Respiratory Care: (Topic)
A special project or experience in Respiratory Care will be selected to enhance core material in the Respiratory Care Program. It provides the student an opportunity for independent-study and specialized instruction as approved by the instructor. This course may be repeated to a maximum of 6 hours. Lecture: variable; Laboratory: variable. Co/Prerequisite: Consent of the Instructor.
Components: Laboratory

RES 299(1 - 4) Course ID: 002271
Selected Topics in Respiratory Care: (Topic)
A special project or experience in Respiratory Care will be selected to enhance core material in the Respiratory Care Program. It provides the student an opportunity for independent study and specialized instruction as approved by the instructor. This course may be repeated to a maximum of 6 hours.
Components: Lecture Attributes: Technical
### SDC Student Development

**SDC 100(1) Course ID: 004847**

**College Survival Seminar**

This course is designed to introduce new students to college in order to facilitate a successful college experience. Students will discover campus resources and support services available to them. Students will be introduced to career and life planning, study strategies, coping skills (i.e., stress management, interpersonal relationships), team projects, activities aimed at self-discovery, and issues that impact college campuses and our global society that are important to the development of the modern college student. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Other

**SDC 102(1) Course ID: 004848**

**Stress Management**

Students will review various physiological and psychological approaches to stress with an emphasis on creating an awareness of how to change and manage their responses to stressful situations. Options and appropriate exercises for coping with anxiety will be presented. Topics will include time management, cognitive restructuring, health, wellness and relaxation training. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Other

**SDC 104(1) Course ID: 006187**

**Transfer Planning**

Increases knowledge, personal awareness, and self-efficacy related to the transfer process after completion of a two year degree. Provides information, decision-making tools, transition skills, and support to navigate the transfer process, and concluding with an individualized transfer plan to ensure successful matriculation to a four-year institution. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

**SDC 105(1) Course ID: 004849**

**Career Planning Seminar**

Students will become more knowledgeable about themselves and career options. Self-assessments and vocational inventories measuring interests, work values, skills and abilities will be administered to students. Students will learn how to research careers, career alternatives and employment trends. Topics will include goal setting, decision-making and employability skills. Students will complete an individual career plan at the conclusion of the course. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

**SDC 109(1) Course ID: 005053**

**Employability Skills**

This course is designed to prepare students for the world of work. Students will be introduced to the self and career assessment, employability skills (i.e., the application process, resume writing, interviewing, and follow-ups), and the job market and job search strategies. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

### SET Special Education

**SED 101(3) Course ID: 000923**

**Sign Language I**

Includes a functional-notational approach to a beginning competency in Sign Language. Incorporates syntax, grammar, non-manual markers (behaviors) of sign language, and cultural information. (After an initial orientation period, no verbal communication will be used in the classroom.). Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

**SED 102(3) Course ID: 000804**

**Sign Language II**

Includes a functional-notational approach designed to follow SED 101 that will enhance student’s knowledge of Sign Language and expand their understanding and appreciation of the people who use it. Pre-requisite: SED 101. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

**SED 203(3) Course ID: 000530**

**Sign Language III**

Emphasizes the practical application of signing, skills, development of cross-cultural communication abilities and vocabulary expansion. Reviews linguistic information and introduces additional linguistic materials. Pre-requisite: SED 102. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

**SED 204(3) Course ID: 000833**

**Sign Language IV**

Continues the expansion of sign vocabulary, sharpening of conversational skills including fingerspelling and numbers, semantics, morphology, syntax and other sign language features applied to conversational settings. Pre-requisite: SED 203. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

### SET Small Engine Repair

**SET 100(3) Course ID: 002002**

**Introduction to Small Engine Repair**

This course introduces the student to small engines and their various applications. Also included are the identification and demonstration of hand tools, special tools, and measuring tools. It covers the selection and use of shop manuals and applying safety procedures when working with small engines. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**SET 110(3) Course ID: 002003**

**Basic Small Engine Theory**

This course introduces the student to the principles of construction and operation of internal combustion engines including the definitions of the following trade terms: valve overlap, reed value, two-stroke cycle engine and four-stroke cycle engine. Corequisite: SET 100. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**SET 111(3) Course ID: 002004**

**Basic Small Engine Lab**

This course provides applications of the theory presented in SET 110. It includes hands-on experience, step-by-step procedures for disassembling engines, identification of engine components, inspection of parts, performing precision measurements on crankshaft, cylinder bore and valves, and the reassembly of the engines. Corequisite: SET 110. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

**SET 200(3) Course ID: 002005**

**Introduction to Marine Technology**

This course introduces the student to outboard and inboard motors and boats, safety practices and the operation of two-cycle and four-cycle motors. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**SET 117(2) Course ID: 002006**

**Marine Electrical and Fuel Systems**

This course presents electrical theory and applications for the marine technician including the marine battery, starter systems, alternator charging systems, and fuel systems. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

**SET 118(3) Course ID: 002007**

**Powerhead Overhaul**

This course presents instruction in overhauling two-cycle engines and repairing or replacing ignition systems. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**SET 119(1) Course ID: 002008**

**Powerhead Overhaul Lab**

This course presents hands-on experience in overhauling two-cycle motors, tuning-up motors and repairing and/or replacing ignition systems. Corequisite: SET 118. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

**SET 120(3) Course ID: 002009**

**Mid-Section, Lower Unit and Trim/Tilt**

This course presents the theory and application necessary to repair and/or replace parts in the mid-section, lower unit, and trim/tilt systems in marine applications. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**SET 121(2) Course ID: 002010**

**Mid-Section, Lower Unit and Trim/Tilt Lab**

This course presents hands-on instruction in the theory necessary to repair and/or replace parts in the mid-section, lower unit, and trim/tilt systems in marine applications. Corequisite: SET 120. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

**SET 122(3) Course ID: 002011**

**Four-Cycle Engine/Stern Drive**

This course presents the theory and application of repair and overhaul methods for the four-cycle engines, and how to make repairs of various stern drive systems. Prerequisite: None. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**SET 123(1) Course ID: 002012**

**Four-Cycle Engine/Stern Drive Lab**

This course presents hands-on training in the theory and application of repair and overhaul methods for the four-cycle engines, and how to make repairs of various stern drive systems Corequisite: SET 122. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

**SET 200(3) Course ID: 002013**

**Electrical Systems**

This course presents electrical systems and their application. Basic electrical theory, including electrical pressure, current, resistance and power measured in volts, amperes, and ohms is also presented. Ohm’s law will be discussed with its application to electrical circuits. Basic circuits (series, parallel, and combination of series and parallel) will be discussed. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical
SET 201(1) Course ID: 002014
Electrical Systems Lab
This course presents hands-on training in electrical systems and their application. Basic electrical theory, including electrical pressure, current, resistance and power measured in volts, amperes, ohms is presented. Ohm’s law will be discussed with its application to electrical circuits. Basic circuits (series, parallel, and combination of series and parallel) will be discussed. Corequisite: SET 200. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

SET 210(3) Course ID: 002015
Ignition/Charging Systems
This course presents ignition/charging systems theory, the principle of operation of a generator/alternator system, and component identification and application. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SET 211(1) Course ID: 002016
Ignition/Charging Systems Lab
This course presents hands-on experience with ignition/ charging systems, the principle of operation of a generator/ alternator system, and component identification and application. Corequisite: SET 210. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

SET 220(3) Course ID: 002017
Fuel Systems
This course introduces fuel systems used on two-cycle and four-cycle engines, the basic types, components, the types of carburetors, the types of fuel filters, and the types of fuel pumps and air filters. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SET 221(1) Course ID: 002018
Fuel Systems Lab
This course provides hands-on experience with fuel systems. The student will diagnose carburetor problems, rebuild diaphragm-type and float type carburetors, test carburetors and make needed adjustments, and adjust the governor according to manufacturers’ specifications on two-cycle and four-cycle engines. Corequisite: SET 220. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

SET 231(3) Course ID: 002020
Motorcycle Chassis Systems
After completion of this course, the student will be able to identify front fork components and service procedures for the steering assembly. The student will be able to identify the service requirements for final drives and the front fork. Instruction will be given in the inspection of brake systems, safe handling of brake fluid, replacing brake shoes and pads, and bleeding hydraulic brake systems. Laboratory: 3 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

SET 232(2) Course ID: 002021
Carburetors and Fuel Systems
The student will be able to identify parts of a motorcycle carburetor and discuss the components and operations of various carburetor circuits. The student will also be able to remove, clean, and install a carburetor and remove, clean and install a fuel valve. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

SET 235(1) Course ID: 002022
Clutches and Starter Systems
Upon completion of this course the student will be able to discuss starter systems found on motorcycles and have a working knowledge of servicing kick and electric starters. The student will also be able to identify parts of a clutch, discuss guidelines for clutch service and be able to remove, disassemble, inspect and reassemble a motorcycle clutch. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

SET 237(2) Course ID: 002023
Engine Tune-Up
After completion of this course the student will be able to perform motorcycle engine tune-ups including: ignition systems, replacing points and condensers, adjusting and verifying timing and service guidelines. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

SET 239(1) Course ID: 002024
Tools and Measurements
After completing this course the student will be able to list and demonstrate the ability to use the tools of the motorcycle technician, including hand tools, power tools, measuring instruments and specialty tools. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

SET 240(3) Course ID: 002025
Four Stroke Cycle Engine
This course presents theory, repair and overhaul methods of four-cycle engines. The student will learn to inspect engines for problems, follow service manuals for measuring cylinder bore, piston fit, ring clearance, rod clearance, crankshaft clearance and valve train components. The student will use special tools including a cylinder hone, valve guide reamer, valve seat cutter, and valve grinder and demonstrate safety practices while using this equipment. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SET 241(1) Course ID: 002026
Four Stroke Cycle Engine Lab
In this course, students repair and overhaul four-cycle engines, inspect engines for problems, follow service manuals specifications needed for measuring cylinder bore, piston fit, ring clearance, rod clearance, crankshaft clearance and valve training components. Students will use the following special tools: cylinder hone, valve guide reamer, valve seat cutter, and valve grinder. Safety practices will be observed while using the equipment. Corequisite: SET 240. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

SET 250(3) Course ID: 002027
Two Stroke Cycle Engine
This course presents theory, repair and overhaul methods of two-stroke cycle engines. Students learn to inspect engines for problems, follow a service manual for measuring cylinder bore, piston fit, ring clearance, rod clearance, crankshaft clearance and valve training components. This course introduces students to the following special tools: cylinder hone, valve guide reamer, valve seat cutter, and valve grinder. Safety practices will be observed while using equipment. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SET 251(1) Course ID: 002028
Two Stroke Cycle Engine Lab
Students repair and overhaul two-cycle engines. Students disassemble, inspect, and service cylinder, piston rings and connecting rod, crankshaft and crankcase assembly, and demonstrate effective safety practices while using special equipment. Students also reassemble and test engines and components to standards set by manufacturer. Corequisite: SET 250. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

SET 252(2) Course ID: 002029
Chassis Systems
This class presents hands-on application of the theory, repair, and overhaul methods of manual and hydrostatic transmissions. It includes how to inspect, diagnose, and repair manual and hydraulic steering systems and deck assemblies. The student will also learn how to perform preventative maintenance, adjust wheel bearings, check steering alignment and remove and replace tires. This course will introduce the student to special tools, fire changers, and the safety practices associated with the use of this equipment. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

SET 257(1) Course ID: 002030
Welding for Small Engines
This class introduces students to the art and science of welding. Students learn to prepare the equipment and to perform basic welding operations. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

SET 258(2) Course ID: 002031
Portable Two Cycle Equipment Lab
This class will enable the student to identify the external parts of the equipment, operate equipment, handle and mix fuel, and transport and handle trimmers and saws. Instruction will be given to identify and diagnose related problems in chain saws, trimmers and other two-stroke cycle equipment. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

SFA Safety and First Aid
SFA 100(1) Course ID: 002034
Safety and First Aid
Safety and First Aid is a course designed to teach current strategies relative to designated emergency situations as put forth by the National Safety Council or American Red Cross. The National Safety Council or American Red Cross standardized course qualifies a student for certification in safety and first aid. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

SFA 101(3) Course ID: 004735
OSH, Health, & Environmental Safety
The basics of OSHA compliance in addition to covering the principles of industrial health and safety, environmental regulations, and industrial requirements with a focus on personal safety and health. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SMT Surveying
SMT 110(3) Course ID: 002035
Principles of Surveying
Provides a study of field and office procedures for measuring distances, elevations, and horizontal and vertical angles. Covers Polaris and solar observations, state plane coordinates, control surveys, and public land surveys. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SMT 130(3) Course ID: 006733
Land Surveying Graphics
Covers graphical communication in surveying and mapping, fundamentals of projection, map projection theory, 3-D viewing, spatial relationships and viewpoints, plots, profiles, cross-sections, sketches for field notes and presentations in technical reports, map accuracy standards, plotting data from field notes and data collection, contour theory, and computations related to survey drafting. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
SPA 115(3) Course ID: 002261
Hispanic Culture: (Country or Region)
Introduces the basic cultural patterns of a Spanish-speaking country or region through in-class experience and/or travel. May be taken up to two times with focus on different country or region. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science
SPA 151(3) Course ID: 005762
Spanish for Health Professionals
The course will teach Spanish terminology and basic grammar related to medical patients, including vocabulary for diagnosis and treatment. Prerequisite: Prior college or high school Spanish or other experience with the Spanish language roughly equivalent to one semester of college study. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)
SPA 201(3) Course ID: 000917
Intermediate Spanish I
Focuses on intermediate level speaking, listening, reading, and writing skills with an emphasis on more advanced grammatical structures; emphasizes speaking the language to expand vocabulary; examines current issues, cultural nuances, and dominant Hispanic themes. Prerequisite: SPA 102, or consent of department and placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies
SPA 202(3) Course ID: 002262
Intermediate Spanish II
Continues intermediate level speaking, listening, reading, and writing skills from SPA 201 with an emphasis on more advanced grammatical structures; focuses on speaking the language to expand vocabulary; examines current issues, cultural nuances, and dominant Hispanic themes. Prerequisite: SPA 201 or consent of department and placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies
SPA 211(3) Course ID: 004678
Spanish Conversation
Sections limited to no more than 15 students each. Oral-aural practice in spoken language. Special emphasis placed on the acquisition of idioms and fundamental conversational vocabulary. Pre-requisite: SPA 202 or equivalent or consent from the department. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
SPA 1011(0.8) Course ID: 006222
Spanish Greetings & Farewells
Highlights greetings and farewells in simple conversations; introduces the present tense of the verb ser (to be); explores the geography, culture, history and political issues of Spanish speaking countries with focus on Hispanics in the United States. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1012(0.8) Course ID: 006223
Spanish for School Life
Introduces basic modes of communication to discuss school life and everyday activities; focuses on asking questions and describing people and things; introduces the present tense of estar (to be) and -ar; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Spain. Prerequisite: SPA 1011. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
SPA 1013(0.8) Course ID: 006224
Spanish for Family and Friends
Features descriptions of family and friends; focuses on using possessive and descriptive adjectives; introduces the present tense of -er and -ir verbs, uses the verbs tener and venir to express needs and state of mind; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Ecuador. Prerequisites: SPA 1013. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1014(0.8) Course ID: 006225
Spanish for Pastime Activities
Presents conversations regarding Pastimes and activities; focuses on the present tense of the verbs ir, select stem-changing and verbs with irregular yo forms, in the context of making plans and describing events; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Mexico. Prerequisite: SPA 1013. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1015(0.8) Course ID: 006226
Spanish for Travel
Presents conversations to discuss and plan a vacation; expands communication to talk about feelings; introduces the present progressive tense and compares the verbs "ser" and "estar" to express descriptions, conditions and emotions; explores the geography, culture, history, and political issues of Spanish speaking countries. Prerequisite: SPA1014. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1021(0.8) Course ID: 006227
Spanish for Shopping
Highlights conversations and vocabulary in the shopping setting; introduces verbs for to know and practices answering questions of to whom or for whom an action is done; presents preterit to express past tense; explores the geography, culture, history, and political issues of Spanish speaking countries with focus on Cuba. Prerequisite: SPA 101. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1022(0.8) Course ID: 006228
Spanish for Daily Routines
Presents descriptions of the daily routine; introduces reflexive verbs and the irregular preterit of ser (to be) and ir (to go); highlights the verb gustar and verbs like gustar; presents negative statements; explores the geography, culture, history, and political issues of Spanish speaking countries with focus in Guatemala. Prerequisite: SPA 1021. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1023(0.8) Course ID: 006229
Spanish for Restaurant Settings
Features dialogs for ordering in a restaurant and describing food, for explaining where you are and for talking about familiar people and places; introduces the pretetit of stem-changing verbs, comparatives and superlatives and indirect object pronouns and direct object pronouns; explores the geography, culture, history, and political issues of Spanish speaking countries with focus on Peru. Prerequisite: SPA 1021. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1024(0.8) Course ID: 006230
Spanish for Celebrations
Highlights conversations of congratulations and gratitude and discussing different stages of life; presents irregular preterit; discusses pronouns as prepositions; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Chile. Prerequisite: SPA 1023. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
SPA 1025(0.8) Course ID: 006231
Spanish for Health Care
Presents dialog to talk about medical conditions; contrasts the imperfect and preterit past tense; illustrates impersonal constructions with se; explores the geography, culture, history, and political issues of Spanish speaking countries with focus on Costa Rica. Prerequisite: SPA 1024. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
STA Statistics
STA 111(3) Course ID: 007218
Sport Statistics
Introduces students to concepts within the sports world where math and statistics skills are applied. Includes analysis of sport formulas, processes, and calculations. Applies mathematical models and ranking methods to the sports world. Assumes students will have a general knowledge and interest in sports. Pre-requisite or Co-requisite: MAT 065. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
STA 200(3) Course ID: 006640
Statistics: A Force in Human Judgment
This course is concerned with the interaction of the science and art of statistics with our everyday lives emphasizing examples from the social and behavioral sciences. The student will not be required to learn mathematical formulas. Topics include the nature of statistics, uses and misuses of statistics, the scope and limitations of statistics, criteria by which published statistics may be judged, interpretation of probability and the art of decision making. Prerequisite: Completion of the mathematics basic skills requirement.
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)
STA 210(3) Course ID: 005196
Statistics: A Force in Human Judgment
Examines the interaction of the science and art of statistics in everyday life emphasizing examples from the social and behavioral sciences including the nature, scope, limitations, and interpretation of statistics. Prerequisite: MAT 145 or MAT 150 or equivalent. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning
STA 210(3) Course ID: 007335
Making Sense of Uncertainty: An Introduction to Statistical Reasoning
The goal of this course is to help students develop or refine their statistical literacy skills. Both the informal activity of human inference arising from statistical constructs, as well as the more formal perspectives on statistical inference found in confidence intervals and hypothesis tests are studied. Throughout, the emphasis is on understanding what distinguishes good and bad inferential reasoning in the practical world around us. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)
STA 215(3) Course ID: 006938
Introduction to Statistical Reasoning
Introduction to descriptive statistics, normal distributions, linear correlation and regression, sampling, experiments, chance phenomena, one- and two-sample estimation and hypothesis testing, chi-square tests, and use of statistical software. Pre-requisites: Completion of all developmental requirements (reading, writing, and math). Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules
STA 291(3) Course ID: 006641
Statistical Method
Introduction to principles of statistics. Statistical description of sample data including frequency distributions, measures of central tendency, and measures of dispersion. Includes theoretical distributions, statistical estimation, and hypothesis testing. Introduces simple linear regression and correlation. Prerequisite: MAT 150 or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)
STA 296(3) Course ID: 016128
Statistical Methods and Motivations
Introduction to principles of statistics with emphasis on conceptual understanding. Students will articulate results of statistical description of sample data (including bivariate), application of probability distributions, confidence interval estimation and hypothesis testing to demonstrate proper contextualization of real-world data. Prerequisite: MA 113, MA 123, MA 137, or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

STA 2201(1) Course ID: 007406
Descriptive Statistics
Examines statistical description of sample data including frequency distributions, measures of central tendency, and measures of dispersion. Pre-requisite: MAT 150 or equivalent. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

STA 2202(1) Course ID: 007407
Probability Distributions
Examines theoretical distributions and statistical estimation. Pre-requisite: STA 2201. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

STA 2203(1) Course ID: 007408
Statistical Inference
Examines hypothesis testing and introduces simple linear regression and correlation. Pre-requisite: STA 2202. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

SUR 100(12) Course ID: 002046
Surgical Technology Fundamentals Theory
Provides an overview of the history of surgery and the role of the surgical technologists, including professional responsibilities, developing a professional resume, legal and ethical considerations, interpersonal relationships and communication skills. Incorporates safety, hazards preparation, aseptic technique and duties of the scrubbed and the circulating surgical technologist during a surgical procedure. Provides information for the performance and completion of surgical procedures including general surgery, obstetric, ambulatory surgery, wound closures, and standard precaution skills. Pre-requisite: Minimum C grade in [BIO 135 or (BIO 137 and BIO 139)] and (AHS 115 or CLA 131 or MIT 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 228) or (BIO 110); Current CPR or BLS certification. Corequisite: SUR 101 and SUR 125 and SUR 130. Lecture: 12 credits (180 contact hours).
Components: Lecture
Attributes: Technical

SUR 101(1) Course ID: 002047
Surgical Technology Fundamentals Lab
Provides opportunity for demonstration of skills required to prepare the patient, operating room, basic equipment, and supplies; and to function as a member of an operating room team. Incorporates OSHA safety standards, aseptic technique, and duties of the scrubbed and circulating technologist during a surgical procedure. Prerequisite: Minimum “C” grade in [BIO 135 or (BIO 137 and BIO 139)] and (AHS 115 or CLA 131 or MIT 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 228) or (BIO 110); Current CPR certification for Healthcare Professionals. Corequisite: SUR 100. Lecture: 0.5 credits (75 contact hours).
Components: Laboratory
Attributes: Technical

SUR 103(1) Course ID: 002048
Surgical Technology Supplemental Lab
Provides opportunity for supplemental practice of skills required to prepare the patient, operating room, basic equipment, and supplies; and to function as a member of an operating room team. Incorporates OSHA safety standards, aseptic technique, and duties of both the scrubbed and circulating technologist during a surgical procedure. Prerequisite: [BIO 130 or BIO 135 or (BIO 137 and BIO 139)] and (AHS 115 or CLA 131 or MIT 103) and (BIO 130 or BIO 225 or BIO 227 or BIO 110). Current CPR certification for Healthcare Professionals. All prerequisites must be achieved with a grade of “C” or greater. Corequisite: SUR 100. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

SUR 109(3) Course ID: 005375
Introduction to Surgical Technology
Provides a brief overview of the history of surgery and an in-depth introduction of the role and responsibilities of the surgical technologists, an integral health care professional in the delivery of perioperative patient care and surgical services; including professional responsibilities, developing a professional resume, legal and ethical considerations, interpersonal relationships and communication skills. Introduces the basics of biomedical science and identifying information resources. Introduces all-hazards preparation for the surgical technologist, basic principles of aseptic technique, sterilization, surgical scrub, gown and gloving and basic instruments used in surgery along with correlating the impact of microbiology in relationship to the practice of sterile technique and infection control in the operative setting. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

SUR 110(9) Course ID: 005470
Surgical Technology Fundamentals
Incorporates safety, aseptic technique and duties of the scrubbed and the circulating surgical technologist during a surgical procedure; Provides indepth information for the successful preparation, performance, and completion of basic surgical procedures; Addresses specialty areas of general surgery, obstetric with attendant specialty equipment, introduces the theory of abdominal incisions, wound closures, and standard precaution skills in each clinical assignment; Includes biomedical sciences of electricity, physics, and robotics as they pertain to surgical technology. Prerequisite: Admission to Surgical Technology program, current CPR or BLS certification, SUR 109, AHS 115 or consent. Lecture: 9 credits (135 contact hours).
Components: Lecture
Attributes: Technical

SUR 125(2 - 3) Course ID: 002049
Surgical Technology Skills Practicum I
Provides opportunity for application of techniques learned during an assigned surgical procedure with an emphasis on OSHA standards. Prerequisite: Minimum grade of “C” in [SUR 100 or (SUR 109 and 110)] and SUR 125 and SUR 130. Corequisite: SUR 200. Clinical: 6.0 - 7.0 credits (360-420 contact hours).
Components: Clinical
Attributes: Technical

SUR 275(2) Course ID: 002053
Surgical Technology Advanced Practicum I
Provides an advanced experience in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with limited supervision. Prerequisite: Minimum grade of “C” in SUR 200 and SUR 201. Practicum: 2.0 credits (120 contact hours).
Components: Practicum
Attributes: Technical

SUR 280(5) Course ID: 004246 Department Consent Required
Surgical Anatomy
Provides accurate information about the structure and function of the human body. Intended for students who are pursuing a career as a Surgical First Assistant. Prerequisite: Surgical Technology or CNOR. Corequisite: SUR 284 & SUR 295. Lecture: 5.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

SUR 282(3) Course ID: 004247
Perioperative Bioscience
Promotes an understanding of microbial physiology which precedes the understanding of disease transmission and/or prevention; Emphasizes standard precautions and infection control. Contains pharmacology section designed to promote understanding of specific areas of post operative drugs. Inhibits anesthesia section designed to promote understanding of general principles/techniques and drugs used by anesthesia and effects on the patient; Introduces the student to the following: diagnostic testing such as radiology, laboratory, cardiology, wound healing, nutrition peripherally, fluid and electrolyte balance, and techniques in maintaining homeostasis. Prerequisite: Program admission and student must be a certified Surgical Technologist or an RN with operating room experience. Students must provide current documentation of certification. Prerequisite: SUR 280 & SUR 284 & SUR 295. Corequisite: SUR 296. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SUR 284(3) Course ID: 004248
Principles of Surgical Assisting
Introduces the student to the theory involved in surgical assisting; Incorporates anatomy, surgical techniques, aseptic techniques, draping, positioning, suturing, safety, and duties of the surgical team. Prerequisite: Program admission. Student must be a certified Surgical Technologist or an RN with operating room experience OR consent. Corequisite: SUR 280 & SUR 295. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

Course Descriptions
SUR 295(1) Course ID: 004250
Surgical First Assistant Clinical
Includes the performance of entry level duties of a surgical assistant in a clinical setting under the supervision of a qualified preceptor. Follows the Commission on Accreditation of Allied Health programs Surgical Assistant Core Curriculum related to the nature of the cases and the duties involved. Pre-requisite: Program admission. Co-requisite: SUR 280 and SUR 284. Clinical: 1 credit hour (45 contact hours).
Components: Clinical
Attributes: Technical
SUR 296(3) Course ID: 006666
Surgical First Assistant Practicum
Involves advanced training in the preoperative, operative, and postoperative phases of surgery. Exposes student to wide variety of surgical procedures. Emphasizes surgical anatomy, along with critical thinking skills, in every surgical procedure under the supervision of a surgeon who is responsible for overseeing the clinical educational experience of the student. Pre-requisite: SUR 280, SUR 284 and SUR 295. Co-requisite: SUR 282. Practicum: 3.0 credits (270 contact hours).
Components: Practicum
Attributes: Technical
SUR 297(1) Course ID: 016240
Surgical First Assistant Practicum II
Involves advanced training in the preoperative, operative, and postoperative phases of surgery. Exposes student to wide variety of surgical procedures. Emphasis on advanced anatomical knowledge that is applied towards the surgical diagnosis, along with critical thinking skills, in every surgical procedure under the supervision of a surgeon who is responsible for overseeing the clinical educational experience of the student. Pre-requisite: SUR 280, SUR 284, SUR 295, SUR 282, SUR 296. Practicum: 1 credit (90 contact hours)
Components: Practicum
Attributes: Technical
SUR 2011(2) Course ID: 016845
Surgical Skills I
Provides opportunity for application of techniques in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with an emphasis on OSHA standards. Includes otorhinolaryngologic, plastic and reconstructive, and oral and maxillofacial procedures. Practicum: 2.0 credits (120 contact hours).
Components: Practicum
SUR 2012(4 - 5) Course ID: 016846
Surgical Skills II
Provides opportunity for application of techniques in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with an emphasis on OSHA standards. Includes genitourinary, orthopedic, neurosurgery, cardiovascular, peripheral vascular, and ophthalmic surgical procedures. Pre-requisite: SUR 2011. Co-requisite: SUR 200. Practicum: 4.0-5.0 credits (240-300 contact hours)
Components: Practicum
SWK 101(3) Course ID: 016179
Introduction to Sustainability
Introduces the concept of sustainability and its varied interpretations; the core concepts in the study of sustainability. Provides an overview and perspective of issues in sustainability from multiple disciplines and viewpoints. Pre-requisite: Current KCTCS placement scores for College level reading and writing. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Other
SWK 102(3) Course ID: 016180
Sustainable Built Environment
Introduces the ideas of sustainability in the built environment, our history of construction and expansion, and buildings and how they interact with the natural environment. Explores issues from the perspective of sustainable planning, design, and construction issues across disciplines. Pre-requisite: Current KCTCS placement scores for College level reading and writing. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Other
SWK 201(3) Course ID: 016181
Sustainable Societies
Examines sustainability concepts, values, and institutional contexts as they are manifested in societal frameworks in the U.S., and globally. Includes topics such as urban agriculture, individual or community based environmental conservation efforts, corporate sustainability programs, as well as cultural and societal implications of resource allocations as they pertain to equity and social justice. Pre-requisite: Current KCTCS placement scores for College level reading and writing. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Other
SWK 202(3) Course ID: 016182
Sustainable Urban Systems
Investigates the physical and social urban infrastructure networks as they relate to sustainability. Examines the institutions, as well as the formal and informal rules, that use, manage, or govern urban physical and social infrastructures. Considers the role of private groups, non-profits, and other organizations and the networks and systems of support that exists for environmental and sustainable-oriented activity. Pre-requisite: SUS 101 Intro. To Sustainability & SUS 201 Sustainable Societies. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Other
SWK 124(3) Course ID: 000584
Introduction to Social Services
Introduces social welfare concepts and philosophies. Examines the profession of social work and its philosophy and value commitments within social welfare. Covers public and private service delivery systems. (Required of social work majors and recommended it be taken the first year.) Lecture: 2.0 credits; Lab: 2.0 credits.
Components: Laboratory, Lecture
Attributes: Technical
SWK 180(3) Course ID: 000154
Introduction to Gerontology
The major biological, psychological, and sociological issues facing America's aging population are examined. Attention is also focused on the resources available to meet needs of older Americans. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
SWK 220(3) Course ID: 005587
Cultural Diversity in Human Services
Examines current and historical cultural diversity in human services as it applies to clients from various cultural groups. Focuses on cultural self awareness and cultural competence as it pertains to human services professionals and client helper relationships. Draws attention to dominant and minor cultural norms, attitudes and belief systems including the culture of poverty. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
SWK 222(3) Course ID: 000484
Development of Social Welfare
Includes cultural traditions, value orientations, and political and economic forces which have contributed to the emergence of present social welfare policies and systems in the United States. (Required of social work majors and open to all others.) Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
TA 1951 - 3 Course ID: 004554
Instructor Consent Required
Special Projects in Theatre Arts (Project Title)
Projects in Theatre Arts that are not otherwise covered by or extend beyond the scope of TA 190, TA 191 or other theatre arts course offerings. Projects may include, but are not limited to, practical application of techniques in special circumstances; special theatre tours; research projects that will be used as the basis of a practical application project; or theatrical workshop projects designed to cover a special area of practice. Projects will be selected by the instructor and may be repeated with different titles for up to six credit hours. Lecture: 1-3 credits (15-45 contact hours); Laboratory: 1-3 credits (60-180 contact hours).
Pre-requisite: Consent of Instructor.
Components: Laboratory, Lecture
Attributes: Other
TA 264(3) Course ID: 002268
Makeup for the Theatre
Theory and practice in the principles, materials and application of makeup. Lecture, two hours; laboratory, two hours. Prerequisite: TA 150 or consent of instructor.
Components: Laboratory, Lecture
Attributes: Other
### Course Descriptions

**TEC Technical Communication**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course ID</th>
<th>Title</th>
<th>Components</th>
<th>Attributes</th>
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</thead>
<tbody>
<tr>
<td>TEC 18(3)</td>
<td>002071</td>
<td>Developmental Writing for the Workplace</td>
<td>Lecture</td>
<td>Other, English</td>
</tr>
</tbody>
</table>

This course is designed to allow students to survey grammar and punctuation skills, which are essential to writing. Emphasis is on clarity and exactness as required to communicate effectively in today's workplace. Prerequisite: None

**TEC 200(3) Technical Communications**

Focuses on written and oral communications in a technical environment, including a review of grammar, usage, mechanics, and punctuation. Emphasizes preparing business communications such as letters and application materials, creating technical reports and sets of instructions, creating proposals or presentation materials, and developing appropriate technical communication styles for various audiences. Covers professional use of email, social media, websites, and other electronic resources. Pre-requisite: Placement in college level writing or Consent of Instructor. Lecture: 3 credits (45 contact hours).

**TEC 2001(1) Technical Communication Basics**

Covers basic principles of technical communication, including definition of technical communication, audience analysis and adaptation, technical communication style, research strategies, creation of visual aids, appropriate use of social media, websites, and other electronic resources. Includes a review of grammar, usage, mechanics and punctuation. Pre-requisites: Placement in college level writing or Consent of Instructor. Lecture: 1 credit (15 contact hours).

**TEC 2002(1) Communication Applications**

Emphasizes preparing business communications in a technical environment such as sets of instructions, technical reports, and proposals. Covers professional use of email. Includes a review of grammar, usage, mechanics, and punctuation. Pre-requisite: TEC 2001. Lecture: 1 credit (15 contact hours).

**THA Theatre**

<table>
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<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>THA 101(3)</td>
<td>000925</td>
<td>Introduction to Theatre: Principles and Practice</td>
<td>Lecture</td>
<td>AH - Arts and Humanities</td>
</tr>
</tbody>
</table>

Cultivates students judgment, perception, and creative response to theatre, emphasizing what and how theatre communicates through examining both processes and products of theatre.

**THA 126(3) Acting I: Fundamentals of Acting**

Course Code: 000774

Explores a broad spectrum of skills in the creative process of acting ensemble. Includes improvisation, movement disciplines (including theatre games, modern dance, and characterization), emotional and sensory awareness, and the process of integrating these into a clearly defined stage technique. Lecture: 3 hours; Laboratory: 2 hours.

**THA 127(3) Acting Techniques**

Uses movement exercises, sensory work, theatre games and basic stage combat exercises to heighten physical awareness, release personal blocks, and discover the experience of being truthful with fellow actors. Continues with students moving on to individual work to establish physical techniques they will use when working on a production. Provides an exploration of physical and emotional awareness and development of a more creative use of their imaginations. Lecture: 1.0 credit hour (15 contact hours) Lab: 2.0 credit hours (90 contact hours). Prerequisite: THA 126.

**THA 141(3) Costuming & Make-up for the Stage**

Course Code: 006781

Develops an understanding of the basic elements of costume and make-up design and application. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (45 contact hours).

**THA 150(3) Fundamentals of Production**

Course Code: 002265

Provides an understanding of the basics of organizational structure, processes and techniques involved in theatre design, technology and management. Lecture: 3.0 credits (45 contact hours).

**THA 190(1) Instructor Consent Required**

**Production Practicum**

Provides study and practice of production techniques through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

**THA 191(1) Instructor Consent Required**

**Performance Practicum**

Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

**THA 192(1) Instructor Consent Required**

**Production Practicum**

Provides study and practice of production techniques through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

**THA 193(1) Instructor Consent Required**

Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

**THA 196(3) Instructor Consent Required**

**Summer Theatre Workshop**

Includes studies in the theory and application of acting, directing and production principles supplemented by written assignments to be determined by the college Theatre program. Admission by audition or selection by director/collage staff. Open to apprentice students in a Summer Theatre program. Prerequisite: Acceptance by audition or selection by director/collage staff. Lab: 1.0 - 3.0 credit hours (45 - 125 contact hours).

**THA 200(3) Introduction to Dramatic Literature**

Course Code: 003810

Provides a study of representative dramatic literature from Greek Antiquity to the present. Lecture: 3.0 credits (45 contact hours).

**THA 203(3) Acting for the Camera**

Course Code: 004433

Provides study and practice of acting and directing for the camera. Prerequisite: THA 126. Lecture: 3.0 credits (45 contact hours).

**THA 225(3) Acting II: Scene Study (Realism)**

Course Code: 000791

Concentrates on several components of the acting process: preliminary study in modern acting theories, Stanislavski to the present; textual analysis, character study and scene work; studio exercises aimed at refining rehearsal skills for the actor. Prerequisite: THA 126 or Consent of Instructor. Lecture: 2.0 credit hours (30 contact hours), Laboratory: 1.0 credit hour (15 contact hours).

**THA 233(1) Acting III: Scene Study (Styles)**

Course Code: 002267

Introduces the actor to a performance style other than realism while continuing to develop the actor's skills in analysis and rehearsal. Prerequisite: THA 226 or Consent of Instructor. Lecture: 2.0 credit hours (30 contact hours), Lab: 1.0 contact hour (15 contact hours).

**THA 235(3) Unarmed Stage Combat**

Course Code: 015598

Provides a study of unarmed combat for the stage from both the classic and contemporary approaches to staging violence. Techniques for punches, slaps, kicks, falls, and rolls will be covered. Lecture: 3.0 credits (45 contact hours).

**THA 250(3) Stage Electrics**

Course Code: 006782

Provides a comprehensive study of sound production and stage lighting in principle and practice. It concentrates on the fundamentals of circuits, instrumentation, and operation of stage lights and sound. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (90 contact hours).

**TRU Truck Driving**

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</thead>
<tbody>
<tr>
<td>TRU 100(6)</td>
<td>002092</td>
<td>Truck Driving</td>
<td>Lecture</td>
<td>Technical, AH - Arts and Humanities</td>
</tr>
</tbody>
</table>

The purpose of the program is to prepare individuals as professional drivers for the truck driving industry. The course content is designed to familiarize students with the fundamental and operational procedures to become professional truck drivers. This is the entire curriculum. It is not divided into individual courses. Prerequisite: CDL Permit

Components: Laboratory, Lecture
Attributes: Technical
UPH Upholstery

UPH 100(3) Course ID: 002093
Introduction to Upholstery
This course introduces the student to the variety of careers in the upholstery business and provides an overview of the industry including furniture manufacturing, furniture upholstery and repair and employment opportunities. Tools, equipment and techniques used in upholstery are discussed. The terms used in industry are stressed. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

UPH 101(1) Course ID: 002094
Introduction to Upholstery Lab
This course provides practical experience in the use of tools, equipment, and techniques of the upholstery industry. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

UPH 110(3) Course ID: 002095
Upholstery Fabrics and Materials
This course introduces the student to various materials used in upholstery, the techniques for using each material, selection of upholstery fabrics and details concerning the usage of each fabric.
Components: Lecture
Attributes: Technical

UPH 111(1) Course ID: 002096
Upholstery Fabrics and Materials Lab
This course provides practical experience in the use of upholstery fabrics, material and equipment. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

UPH 120(1) Course ID: 002097
Furniture Preparation
This course introduces the student to the various techniques used in the stripping and repairing of furniture frames and to the installation of webbing and springs. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

UPH 121(2) Course ID: 002098
Furniture Preparation Lab
This course provides practical experience in the use of various techniques used in the stripping and repairing of furniture frames and to the installation of webbing and springs. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

UPH 126(1) Course ID: 002100
Padding Installation Lab
This course provides practical experience in the use of padding furniture for upholstery purposes. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

UPH 131(4) Course ID: 002101
Final Cover Fabrication and Installation Lab
This course provides practical experience in the use of various aspects of padding furniture for upholstery. The methods and materials used in making cushions and techniques and materials used in channeling and tufting processes are also taught in this course. Laboratory: 4 credits (180 contact hours).
Components: Laboratory
Attributes: Technical

UPH 151(2) Course ID: 002102
Small Frame Fabrication and Upholstering Lab
This course introduces the student to design and manufacture of small upholstery frames. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

UPH 198(5) Course ID: 002103
Practicum I
Practicum provides supervised on-the-job work experience related to the student's education objectives. Students participating in practicum do not receive compensation. Prerequisite: Permission of Instructor. Practicum: 5 credits (375 contact hours).
Components: Practicum
Attributes: Technical

VCA Visual Communications Art and Design

VCA 102(3) Course ID: 002108
Fundamentals of Drawing
Introduces basic drawing skills and concepts as they are applied for graphic design. Emphasizes how to draw in proper perspective for reproduction purposes. Students must receive a letter grade of "C" or better. Lecture/Lab 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCA 105(3) Course ID: 016768
Drawing Concepts
Develop drawing skills and illustration concepts as they apply to graphic design. Emphasizes how to create form in space and to draw in proper perspective for reproduction purposes. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture
Attributes: Technical

VCA 106(3) Course ID: 002113
Creative Typographical Design
Explores the use of type as a major element of design to solve visual communication problems. Includes the use of layout markers to creatively manipulate type forms and produce interesting, attractive type-only designs. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCA 108(3) Course ID: 002110
Digital Color Theory
Teaches the use of 35 mm cameras, printers, enlargers, and laboratory equipment in relation to black and white photography. Includes basic photographic methods and laboratory equipment in relation to black and white photography. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCA 120(3) Course ID: 002116
Digital Photography I
Introduces the skills and techniques to capture and process digital photographs. Emphasizes basic digital camera operations and lighting techniques. Includes proper techniques to import and organize photographs. Introduces basic Photoshop skills to manipulate and enhance digital photographs. Includes discussions on appropriate resolutions and file formats. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCA 132(3) Course ID: 000203
Illustration For Advertising
Develops skills in visualization and illustration techniques as they apply to advertising and graphic design. Emphasizes visual interpretation of narrative textual information (such as a story, poem or magazine article), editorials, advertising, and books. Uses a variety of media from traditional media to digital media to create professional illustrations as elements of advertising. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

VCA 151(3) Course ID: 005382
Digital Filmmaking I
Provides training in non-studio video production and editing. Includes applied aesthetics and production of dramatic, informational or experiential work on video. Pre-requisite Or Co-requisite: VCA 160 and VCC 166 with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

VCA 152(3) Course ID: 005383
Digital Filmmaking II
Provides training in computer based editing and pre-production planning. Includes applied aesthetics of video editing production of dramatic, informational or experimental work on video. Pre-requisite Or Co-requisite: VCA 160 and VCC 166 with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

VCA 160(3) Course ID: 000207
Commercial Photography I
Teaches the use of 35 mm cameras, printers, enlargers, and laboratory equipment in relation to black and white photography. Includes basic photographic methods and skills in acquiring, developing, printing and presentation of photographs. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCA 161(3) Course ID: 000208
Commercial Photography II
Continues the study of the 35mm camera as it relates to commercial art primarily in a studio setting using digital photography. Includes problem solving through assigned projects. Prerequisite: VCA 160 with a grade of "C" or better or consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

VCA 170(3) Course ID: 000212
Advertising Design I
Introduces the principles and practices of graphic design. Includes terminology and procedures commonly used in graphic design, along with the Macintosh computer system and software used in illustration and graphic design for the print media and for the Internet, and navigation through and searching for information on the Internet using a web browser. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCA 171(3) Course ID: 005395
Advertising Design II
Explores basic to intermediate skills in electronic publishing, design layout, type composition, and prepress for printing and publishing applications. Prerequisite: VCA 170 with a grade of "C" or better or Consent of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
VCA 240(3) Course ID: 000213
Package Design
Explores the development of brand identity as it relates to packaging. Introduces concepts, theories, terminology, design, and production of hard and soft wall three-dimensional packaging and product labels. Emphasizes creative problem solving and legal requirements for the packaging industry. Students must receive a letter grade of "C" or better. Prerequisite: VCC 125 and VCC 110. Lecture: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCA 250(3) Course ID: 004553
Advertising Design
Explores and reviews the role of advertising in the marketing mix and the function of major media forms. Uses a creative brief process to research, create, and design promotional concepts that meet assignment specifications. Explores legal strategies involved in advertising. Students must receive a letter grade of "C" or better. Prerequisite: VCC 125 and VCC 110. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCA 251(3) Course ID: 005384
Digital Filmmaking III
Provides training in single-person video production with an emphasis on Electronic News Gathering style of video. Covers news, interviews, TV commercials, and documentaries. Prerequisite: VCA 152 with a grade of "C" or better or Consent of Instructor. Prerequisite Or Co-requisite: VCA 160 with a grade of "C" or better or Consent of Instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

VCA 252(3) Course ID: 005385
Digital Filmmaking IV
Provides training in multiple-person video production with an emphasis on Film-Style video production, story telling, TV commercials, and documentaries. Prerequisite: VCA 251 with a grade of "C" or better or Consent of Instructor. Prerequisite Or Co-requisite: VCA 160 with a grade of "C" or better or Consent of Instructor. Lecture: 2.0 credits (30 contact hours); Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

VCA 255(3) Course ID: 002120
Corporate Design
Creates and develops a total corporate identity emphasizing relationships between adequate research and development of appropriate concepts for a company image. Students must receive a letter grade of "C" or better. Prerequisite: VCC 125 and VCC 110. Lecture: 1.0 credit (15 contact hours); Lab: 2.0 credits (75 contact hours); 37.5:1 ratio.
Components: Lecture Attributes: Technical

VCA 260(4) Course ID: 000208
Commercial Photography III
Continues Commercial Photography II. Applies principles and techniques with emphasis on digital color photographic illustrations captured in the studio and on location. Begins use of lens perspective controls on the camera. Prerequisite: VCA 161 with a grade of "C" or better or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCA 261(4) Course ID: 000209
Commercial Photography IV
Continues Commercial Photography III. Emphasizes color photography and color management. Guidance in portfolio development as well as exploration of business practices in photography. Prerequisite: VCA 260 with a grade of "C" or better or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCA 267(4) Course ID: 000215
Professional Portfolio Development
Introduces students to proper assembly of a professional portfolio and presentation skills. Students will refine work created in previous classes, identify strengths and weaknesses in their work, create a self-promotional package, attend mock interviews and participate in portfolio exhibit. Students must receive a letter grade of "C" to successfully complete this course. Prerequisite: Permission of Instructor. Lecture: 1.0 credit (15 contact hours); Lab: 2.0 credits (75 contact hours); 37.5:1 ratio.
Components: Laboratory, Lecture Attributes: Technical

VCA 280(2 - 6) Course ID: 000216
Instructor Consent Required
Practicum
Incorporates and applies skills and techniques previously learned in the classroom and commercial art laboratory. Provides practical experience in a variety of commercial art establishments in the community. Prerequisite: VCA 280, VCA 261 or VCA 271 with a grade of "C" or greater or Consent of Instructor. Lecture: 1 credits (15 contact hours); Lab/Practicum: 3 credits (150 contact hours); 50:1 ratio.
Components: Laboratory, Lecture Attributes: Technical

VCA 290(3) Course ID: 000205
Instructor Consent Required
Folio Seminar
Prepares advanced design and photography students to complete a professional portfolio. Explores job interview techniques to help students understand their responsibilities in seeking positions. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Prerequisite: Consent of Instructor.
Components: Lecture Attributes: Technical

VCC 106(3) Course ID: 016769
Typography
Explores the use of type as a major element of design. Students become skilled in selecting appropriate type styles and fonts for a variety of media. Provides experience in using type as a creative tool to produce interesting, type-only designs. Applies elements and principles of design. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Prerequisite Or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 110(3) Course ID: 002111
Design Concepts
Explores in detail the elements and principles of design to develop skills in producing creative ideas and designs for various media forms. Apply concepts in the process of design that includes legal issues, media strategy, and consumer behavior. Students must complete with a final grade of "C" or better to advance in all Visual Communication courses. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 115(3) Course ID: 005141
Strategic Concepts
Introduces advertising, promotion, creative and marketing concepts related to the visual communication field. Topics also include legal issues, media strategy, and consumer behavior. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCC 125(3) Course ID: 006859
Computer Graphics I
Introduces students to computer applications that are specific to the visual communication industry. Develops primary skills using software applications for page layout, illustration and digital imaging. Students must complete with a final grade of "C" or better to advance in all Visual Communication courses. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 150(3) Course ID: 004475
Mac Basics
Provides an introduction to Apple/Mac computer technology. Emphasizes industry specific needs, including hardware and software. Presents basic uses of the Internet, email, file management and computer ethics. This course fulfills the computer/digital literacy requirement. Students must receive a letter grade of "C" or better. Basic keyboarding recommended. Prerequisite: RDG 020. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Digital Literacy

VCC 168(3) Course ID: 008150
Photoshop Basics
Develops skills to digitally manipulate, enhance, and create composite photographs. Introduces raster graphics and their use in the visual communication industry. Creation and manipulation of graphics from simple to increasingly complex images and designs will be the focus of this course. Students must receive a letter grade of "C" or better. Prerequisite: Digital Literacy. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Digital Literacy

VCC 200(3) Course ID: 002124
Computer Illustration
Develops skills in computer illustration and drawing using industry standard software. Introduces vector graphics and their uses in the visual communication industry. Creation of vector graphics from simple to increasingly complex designs will be the focus of this course. Students must receive a letter grade of "C" or better. Prerequisite: Digital Literacy. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical
VCC 205(3) Course ID: 004454
Introduction to HTML
Introduces the creation of Web sites using hypertext markup language (HTML) and cascading style sheets (CSS). Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
VCC 210(3) Course ID: 002125
Advanced Computer Illustration
Provides students with advanced knowledge and skills in computer illustration. Creation of vector graphics and complex designs will be the focus of this course. Students must receive a letter grade of "C" or better. Pre-requisite Or Co-requisite: VCC 200. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCC 212(3) Course ID: 005589
Vinyl Graphics and Applications
Introduces concepts, vocabulary, and processes used in relation to the design and production of graphics for the sign industry. Provides knowledge in the operation of wide format printers and vinyl cutters/plotters to create special graphics used for indoor and outdoor advertising. Covers the procedures used to prepare vinyl graphics and substrates for different applications. Students must receive a letter grade of "C" or better. Pre-requisite Or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCC 214(3) Course ID: 005731
Production Design I
Introduces concepts, vocabulary, and processes used in relation to the design and production of graphics for various media and promotional materials. Provides students with knowledge and training of various production equipment along with software applications used to design graphics. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCC 216(3) Course ID: 006660
Production Design II
Introduces students to the technologies of pad printing and screen printing. Provides students with knowledge and training of various equipment and procedures to properly prepare graphics for these printing technologies. Provides students with training in appropriate software applications used to design and prepare graphics or a variety of substrates and promotional items. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite Or Co-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCC 218(3) Course ID: 006661
Production Design III
Provides basic knowledge of the steps and procedures used to prepare graphics, troubleshoot, and correct files for digital printing. Provides students with the basic skills to produce and utilize PDF files. Provides knowledge in the importance of proper imposition and page-layout of various publications. Provides knowledge and training of various finishing and binding techniques used in the industry. Students must receive a final grade of "C" or better to Advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCC 220(3) Course ID: 004473
Instructor Consent Required
InDesign Basics
Develops skills in page design and layout using Adobe InDesign software. Students will understand apply concepts and mechanics of page layout to produce various publications using graphic design concepts learned. Students must receive a letter grade of "C" or better. Prerequisite: Digital Literacy. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCC 230(3) Course ID: 004462
Instructor Consent Required
Advanced InDesign
Provides advanced skills in page design and layout using Adobe InDesign software. Design and creation of a variety of complex and multi-page documents will be the focus of this course. Students must receive a letter grade of "C" or better. Prerequisite: VCC 220. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCC 245(3) Course ID: 016771
Graphic Design II
Explores the uses of elements and principles of design in the creative ideation process. Uses the creative brief process to research, design, and create corporate identities, packaging, promotional items, and advertising campaigns. Introduce concepts, theories, terminology, and design of corporate logos, packaging, and advertising. Introduces legal requirements within the industry. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 215. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCC 255(3) Course ID: 016772
Emerging Media Design
Explores fundamental principles of design, function, and usability of new media technology, including games, mobile applications, web-based media and other digital media platforms. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 235. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCC 260(3) Course ID: 001509
Instructor Consent Required
Publication Design
Provides advanced knowledge of designing publications for the print media using a combination of Adobe InDesign, Photoshop and Illustrator. Creation of a variety of complex and multi-page documents will be the focus of this course. Students must receive a letter grade of "C" or better. Prerequisite: VCC 110 and VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCC 260(3) Course ID: 016773
Computer Graphics II
Provides advanced skills in computer graphics using Adobe InDesign, Photoshop, and Illustrator. Creation of a variety of complex and multi-page documents will be the focus of this course. Students will also gain knowledge in working with PDF files, color separations, preflighting and imposition for printing. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCC 266(3) Course ID: 005142
Instructor Consent Required
Advanced Photoshop
Provides supervised on-the-job work experience related to the student's educational objectives. Students participating in Internships do not receive compensation for their work. Co-Op/Internship: 3 credits (180 contact hours). Prerequisite: Permission of Instructor.
Components: Co-Op
Attributes: Technical
VCC 270(3) Course ID: 005798
Instructor Consent Required
Acrobat Basics
Provides students with the basic skills using Adobe Acrobat to produce and utilize PDF documents. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
VCC 297(3) Course ID: 004469
Instructor Consent Required
Practicum
Provides students with advanced knowledge and skills in computer graphics for the sign industry. Provides knowledge in the operation of wide format printers and vinyl cutters/plotters to create special graphics used for indoor and outdoor advertising. Covers the procedures used to prepare vinyl graphics and substrates for different applications. Students must receive a letter grade of "C" or better. Pre-requisite Or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCM Visual Communications Multimedia
VCM 110(3) Course ID: 004453
Fundamentals of Animation
Explores the fundamentals of 2-D animation through history, theory and practical application. Covers the basic concepts of animation, including: character design and development, character environment, and storyboarding. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
VCM 115(3) Course ID: 004452
2-D Animation
Introduces basic computer animation using industry standard software. Uses software to create 2-D animations for various multi-media functions. Students must receive a letter grade of "C" or better. Lecture: 1.0 credit (15 contact hours), Laboratory: 2.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical
VCM 125(3) Course ID: 015851
Foundations of Video Production
Introduces students to the basics of video production and animation. Includes screenwriting, storyboards, and planning a video production and animation project. Familiarizes students with video, lighting, and sound equipment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
VCM 140(3)  Course ID: 001762
Digital Video
Presents techniques for digital audio and video acquisition, equipment, and editing software. Emphasis on planning and creating storyboards for digital video project from conception to final product. Students must receive a letter grade of “C” or better. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCM 210(3)  Course ID: 004344
3-D Animation
Introduces the principles of animation. Uses commercial 3-D animation packages and storyboards to produce 3-D models and animations. Students must receive a letter grade of “C” or better. Prerequisite Or Co-requisite: VCM 115. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

VCM 215(3)  Course ID: 005143
After Effects
Introduces basic compositing techniques and motion graphics using Adobe AfterEffects. Emphasizes an understanding of pre-production for AfterEffects, green screen, lighting, compositing, creating mattes, animating text, syncing to audio and exporting movies. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCM 220(3)  Course ID: 001767
Webpage Design
Introduces students to principles and elements used in web design. Explores basic web design tools such as mark-up languages, cascading style sheet, and web authoring software. Identifies fundamentals including website layout, navigation, font usage, color schemes, and site structure to create visually-pleasing websites. Students must receive a letter grade of “C” or better. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (75 contact hours/37.5:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

VCM 225(3)  Course ID: 005732
Advanced 3-D Animation
Familiarizes students with advanced techniques of computer animation. Covers the production of 3-D animations using advanced lighting and rendering tools, inverse kinematics, and dynamic scene elements. Students must receive a letter grade of “C” or better. Prerequisite Or Co-requisite: VCM 210. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCM 230(3)  Course ID: 004345
Advanced Webpage Design
Introduces aesthetic, navigational, accessibility, usability, and interactivity issues for web designers. Prerequisite: VCM 220 with a grade of “C” or better or Consent of Instructor. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (75 contact hours).
Components: Laboratory
Attributes: Technical

VCM 240(3)  Course ID: 004456
Advanced Digital Video
Emphasizes planning and creation of digital video projects through a non-linear editing environment is the focus of this course. Deploys audio/video content through various delivery systems. Students must receive a letter grade of “C” or better. Prerequisite Or Co-requisite: VCM 140. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (75 contact hours/37.5:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

VCP 250(3)  Course ID: 005795
Screen Printing
Includes how to identify and perform the proper methods of the operations of a screen printing process, including registration, placement, screen preparations, artwork preparations, and using inks and substrates to produce quality screen printed products to specification. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 125 and VCC 166. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCP 255(3)  Course ID: 001508
Instructor Consent Required
Special Topics Lab
This course provides the student with additional hands-on experience. Topic will be specified by instructor. Laboratory: 3 credits (45 contact hours). Course may be scheduled a maximum of three times, with a total of 9 credit hours/135 clock hours. Prerequisite: Permission of Instructor.
Components: Laboratory
Attributes: Technical

VET 110(5)  Course ID: 007425
Introduction to Veterinary Technology
Introduces students to veterinary medicine and technology through the lecture component covering hospital operation, professional standards, and ethics. Introduces the study of breeds and species of domesticated animals and the basic concepts of animal behavior. Studies the nature and form of medicines and the calculation of dose and dosages. The lab component teaches and reinforces restraint techniques; lab procedures, equipment identification, medical terminology, and medication administration; and small animal nutrition. Co-requisite: AGR 240; BIO 112; BIO 113. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

VET 112(4)  Course ID: 007426
Veterinary Microbiology
Examines the characteristics of microorganisms and their relationships to animal health and diseases. Introduces fundamental microbiological principles and laboratory techniques. Pre-requisite: BIO 112, BIO 113, and VET 110. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VET 114(5)  Course ID: 007427
Animal Anatomy and Physiology
Provides a functional integration of basic science and clinical information as it relates to animals in an integrated lecture and laboratory approach, employing the organ system approach, using domestic and laboratory animals as models to discuss anatomy and physiology. Utilizes preserved animal specimens, fresh and preserved, as well as skeletons and models, in the laboratory to reinforce concept courses. Pre-requisite: VET 110. Co-requisite: VET 112. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

VET 120(2)  Course ID: 007428
Clinical Practicum I
Provides practical experience in veterinary clinics and/or related facilities; students complete an average of approximately 12 hours of clinical practicum per week. Prerequisite: VET 110, 112, and 114. Co-requisite: VET 130. Clinical: 2.0 credits (96 contact hours).
Components: Clinical
Attributes: Technical

VET 130(5)  Course ID: 007429
Veterinary Laboratory Procedures I
Introduces the student to essential nursing skills, covers surgical nursing concepts, small and large animal medical nursing, aseptic technique, and surgical instrumentation. The lab component prepares the student to assist the veterinarian in performing surgery by introducing anesthesia and operation of the anesthesia machine and nursing procedures during the surgical process. Introduces radiographic procedures and covers dental prophylaxis, recognition of dental abnormalities, and charting. Pre-requisite: VET 110, 112, and 114. Co-requisite: VET 120. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

VET 210(3)  Course ID: 007430
Pharmacology
Introduces the major drug classifications, covers the use and control of drugs, measurements and conversion factors, and methods of drug action and interaction used in small and large animal practice. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 220 and VET 230. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VET 220(5)  Course ID: 007431
Parasitology and Clinical Lab
Covers the study of internal and external parasites of companion, exotic, and farm animals. Life cycles, diagnostic protocol, control, and treatment of the most common parasites will be discussed. Familiarizes students with laboratory techniques performed in veterinary hospitals and clinics. Examination and testing of blood, feces, urine, and exudates are performed for diagnostic and prognostic purposes. Development of skills necessary to maintain a safe laboratory working environment, institute quality control programs, collect, process, store, and transport clinical biological specimens. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 210 and VET 230. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

VET 230(5)  Course ID: 007432
Veterinary Lab Procedures II
Covers development, treatment, prevention, and control of infectious and non-infectious diseases. Develops skills in surgical nursing, anesthesia monitoring, critical care, emergency medicine, and radiographic techniques. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 210 and VET 220. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

VET 240(5)  Course ID: 007433
Veterinary Lab Procedures III
Emphasizes lab animal care, advanced radiographic techniques, ultrasound, and clinical pathology, this course as a continuation of VET 230. Refine skills introduced in previous courses. Uses field trips to veterinary and research facilities when appropriate. Pre-requisite: VET 210, VET 220, and VET 230. Co-requisite: AGR 280 and VET 250. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

VET 250(5)  Course ID: 007434
Clinical Practicum II
Provides practical experience in veterinary hospitals, clinics, and/or related facilities; students complete an average of 16 hours per week. Pre-requisite: VET 210, VET 220, and VET 230. Co-requisite: VET 240. Clinical: 5.0 credits (240 contact hours).
Components: Clinical
Attributes: Technical
WGS 200(3) Course ID: 000815
Introduction to Women's and Gender Studies in the Social Sciences
Introduces women’s and gender studies from a social science perspective, using a cross-cultural and interdisciplinary approach. Emphasizes social science explanations for sex-type behavior, social perceptions of women and men, and the roles of women in social and cultural life. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

WGS 201(3) Course ID: 000821
Introduction to Women's and Gender Studies in the Arts and Humanities
Introduces women's and gender studies from a humanities perspective, using a cross-cultural and interdisciplinary approach including art and literature. Examines issues and problems of women in contemporary society through the lens of race, gender, class, and socio-political spheres. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

WLD 100(2) Course ID: 004575
Dry-Fuel Systems
A working knowledge of oxy-fuel identification, set-up, inspection, and maintenance; consumable identification, selection and care; principles of operation; and effects of variables for manual and mechanized oxy-fuel cutting, welding, brazing and principles and practices, and metallurgy. Shop safety and equipment use are also covered. Lecture: 2 credits (30 contact hours) Corequisite: WLD 101 or Consent of Instructor.
Components: Lecture
Attributes: Technical

WLD 101(2) Course ID: 004576
Dry-Fuel Systems Lab
Manipulative skills necessary to weld and cut plate and pipe in all positions, as well as brazing, braze welding, and gouging. Lab: 2 credits (60 contact hours/30:1 ratio) Corequisite: WLD 100 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 110(2) Course ID: 004605
Cutting Processes
A working knowledge of various cutting processes used by the welding industry. Will include, but is not limited to, safety, theory of operation, setup and operating techniques, troubleshooting and making minor equipment repairs, tooling and definitions, identification, evaluation, repair and prevention of discontinuities of cut surfaces. Includes oxy-fuel cutting, plasma arc cutting, exothermic cutting, air carbon arc cutting, shielded metal arc cutting, and mechanical cutting process. Lecture: 2 credits (30 contact hours) Corequisite: WLD 111 or Consent of Instructor.
Components: Lecture
Attributes: Technical

WLD 111(3) Course ID: 004577
Cutting Processes Lab
Designed to provide the student with practical experience to become proficient in the use of various metal cutting processes. Safety, setup, and operating techniques are employed. Students will troubleshoot and make minor repairs to equipment. Students will also learn to identify, repair, and prevent reoccurrence of cut surface discontinuities. Processes shall include, but not limited to: OFC, PAC, AAC, and mechanical methods. Various materials will be used where appropriate. Lab: 3 credits (90 contact hours/30:1 ratio) Corequisite: WLD 110 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 120(2) Course ID: 004600
Shielded Metal Arc Welding
Teaches students the identification, inspection, and maintenance of SMAW electrodes; principles of SMAW; the effects of variables on the SMAW process to weld plate and pipe; and metallurgy. Lecture: 2 credits (30 contact hours). Corequisite: WLD 121 or Consent of Instructor.
Components: Lecture
Attributes: Technical

WLD 121(3) Course ID: 004578
Shielded Metal Arc Welding Fillet Lab
Provides laboratory experiences in which the student acquires the manipulative skills to perform fillet welds in all positions. Lab: 3 credits (90 contact hours/30:1 ratio) Corequisite: WLD 120 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 123(3) Course ID: 004599
Shielded Metal Arc Welding Groove with Backing Lab
Provides experiences in which students acquire the manipulative skills to do groove welds in all positions with backing. Lab: 3 credits (90 contact hours/30:1 ratio). Corequisite: WLD 120 and 121 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 125(3) Course ID: 004597
Gas Tungsten Arc Welding Identification, inspection, and maintenance of GTAW machines; identification, selection and storage of GTAW electrodes; principles of GTAW; the effects of variables on the GTAW process; and metallurgy. This course also teaches the theory and application of Plasma Arc Cutting. Corequisite: WLD 131 or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

WLD 131(3) Course ID: 004580
Gas Tungsten Arc Welding Fillet Lab
Teaches the necessary manipulative skills needed to apply the Gas Tungsten Arc on various joint designs on plate with both ferrous and non-ferrous metals. Plasma Arc cutting included. Corequisite: WLD 130 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

WLD 132(3) Course ID: 004581
Gas Tungsten Arc Welding Groove Lab
Teaches the method of operation and application of the gas tungsten arc welding process for welding groove welds in both ferrous and non-ferrous plate in all positions. Prerequisite: WLD 130 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

WLD 140(2) Course ID: 004582
Gas Metal Arc Welding Identification, inspection, and maintenance of GMAW machines; identification, selection, and storage of GMAW electrodes; principles of GMAW; and the effects of variables on the GMAW process. Theory and applications of related processes such as FCAW and SAW and metallurgy are also included. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

WLD 141(3) Course ID: 004583
Gas Metal Arc Welding Fillet Lab
Teaches the practical application and manipulative skills of Gas Metal Arc Welding and the proper safety situations needed in this process. Both ferrous and non-ferrous metals will be covered, as well as various joint designs on plate in all positions. Corequisite: WLD 140 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

WLD 143(3) Course ID: 004584
Gas Metal Arc Welding Groove Lab
Teaches the method of operation and application of the gas metal arc welding process for welding groove welds in both ferrous and non-ferrous plate in all positions using both short circuiting and spray transfer where appropriate. Prerequisite: WLD 140 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

WLD 145(1) Course ID: 004586
Gas Metal Arc Welding Aluminum Lab
Teaches welding aluminum using the GMAW process. Fillets and groove welds are made in all positions in both plate and pipe. Short Circuiting and Spray transfers are used where appropriate. Prerequisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

WLD 147(1) Course ID: 004585
Flux Cored Arc Welding Lab
Acquaints the student with the method of operation and application of the flux cored welding system. Prerequisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical
WLD 151(2) Course ID: 004603
Basic Welding A
Introduction to welding, cutting processes, and related equipment. Basic setup, operation, and related safety are applied. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

WLD 152(5) Course ID: 004441
Basic Welding B
An introduction to common cutting and welding processes used in industry. Theory, setup, operation, and related safety are applied. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

WLD 161(1) Course ID: 004602
Submerged Arc Welding Lab
Designed to provide the student with a working knowledge of SAW set-up, maintenance, and consumable identification. Includes practice in basic SAW principles and techniques related to the field of study. Laboratory: 1 credit (30 contact hours/30:1 ratio). Prerequisite: WLD 140 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 170(2) Course ID: 004587
Blueprint Reading for Welding Lab
Provides a study of occupationally specific prints for welders. Advanced study of multi-view drawings, assembly drawings, datum dimensions, numerical control drawings, sheet metal prints, castings and forgings, instrumentation and control charts and diagrams, working drawings, geometric dimensioning and tolerancing and use of reference materials and books are included. Occupational specifics including welding drawings, symbols, joint types, grooves, pipe welding symbols, testing symbols and specification interpretations are stressed. Lecture: 2 credits (30 contact hours). Corequisite: WLD 171 or Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 171(3) Course ID: 004588
Blueprint Reading for Welding Lab
Provides students with practice fabricating from a blueprint. Students will read and fabricate from detail prints, control distortion during fabrication, and follow the proper sequence in welding a fabricated part. Students will use welding symbols and study weld sizes and strengths. Lab: 3 credits (90 contact hours/30:1 ratio). Corequisite: WLD 170 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WMT 120(4) Course ID: 002177
Wood Product Manufacturing
Fundamentals of wood processing and an overview of the secondary wood processing industry are covered in this course. The nature of wood, material selection, terminology, safe set-up, and operation of common woodworking equipment will be discussed. Each student will fabricate a wood product while being introduced to custom woodworking techniques, as well as mass production concepts related to product engineering.
Components: Lecture Attributes: Technical

WMT 110(2) Course ID: 002176
Technical Drawing and Blueprint Reading
Fundamentals of orthographic and pictorial drafting techniques; and reading and interpreting architectural, furniture and cabinet drawings are the focus of this course. Students will apply blueprint reading skills by preparing materials and cutting lists for actual jobs.
Components: Lecture Attributes: Technical

WLD 220(2) Course ID: 004589
Welding Certification Lab
Provides students an opportunity to test on all types of welding for certification standards. Laboratory: 3 credits (90 contact hours/30:1 ratio). Corequisite: WLD 220 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 221(3) Course ID: 004590
Welding Certification Lab
Provides students an opportunity to test on all types of welding for certification standards. Laboratory: 3 credits (90 contact hours/30:1 ratio). Corequisite: WLD 220 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 225(3) Course ID: 004591
Shielded Metal Arc Welding Open Groove Lab
Designed to build upon SMAW Plate Lab I & II. Offers the student the opportunity to advance skills in the practical aspects of vee/butt plate welding using SMAW Lab: 3 credits (90 contact hours/30:1 ratio). Prerequisite: WLD 120 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 227(3) Course ID: 004592
Shielded Metal Arc Welding Pipe Lab A
Teaches the required manipulative skills to arc weld pipe using mild steel electrodes in the 2G and 5G positions including proper pipe preparations, electrodes, safety precautions, and welding sequences. Lab: 3 credits (90 contact hours/30:1 ratio). Prerequisite: WLD 225 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 229(3) Course ID: 004593
Shielded Metal Arc Welding Pipe Lab B
Teaches the required manipulative skills to arc weld pipe using mild steel electrodes in the 6G position including proper pipe preparations, electrodes, safety precautions, and welding sequences. Lab: 3 credits (90 contact hours/30:1 ratio). Prerequisite: WLD 229 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 235(3) Course ID: 004594
Gas Tungsten Arc Welding Pipe Lab A
Teaches the method of operation and application of the gas tungsten arc welding system for welding of both ferrous and non-ferrous pipe in 2G and 5G positions. Lab: 3 credits (90 contact hours/30:1 ratio). Prerequisite: WLD 133 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 237(3) Course ID: 004595
Gas Tungsten Arc Welding Pipe Lab B
Teaches the method of operation and application of the gas tungsten arc welding process for welding of both ferrous and non-ferrous pipe in 6G position. Lab: 3 credits (90 contact hours/30:1 ratio). Prerequisite: WLD 133 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 239(1) Course ID: 005310
Orbital Tube Welding Lab
Familiarizes students with the orbital weld system, basic setup, operation, and safety. Prerequisite: WLD 130 & WLD 131 or Permission of Instructor. Laboratory: 1 credit (30 contact hours).
Components: Laboratory Attributes: Technical

WLD 240(2) Course ID: 004596
Materials Technology
Provides the student with a working knowledge of materials used in welding. This class includes materials identification and classification. Metallurgy is included with a detailed analysis of physical, mechanical, and chemical properties. Introduces the student to the application of metallurgy to welding including preheat, interpass temperature, and post-weld heat treatment and their effects on welding and welding's effect on them. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

WLD 245(3) Course ID: 004604
Gas Metal Arc Welding Pipe Lab A
Acquaints the student with the operation and application of the Gas Metal Arc System for welding in 2G and 5G positions. Laboratory: 3 credits (90 contact hours/30:1 ratio). Prerequisite: WLD 143 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 247(3) Course ID: 004597
Gas Metal Arc Welding Pipe Lab B
Acquaints the student with the operation and application of the Gas Metal Arc System for welding groove welds in pipe in 6G position. Lab: 3 credits (90 contact hours/30:1 ratio). Prerequisite: WLD 143 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 251(1) Course ID: 004608
Welding Automation Lab
Provides the student a working knowledge and hands-on experience using automatic welding equipment such as robotic welding systems, bug-o systems, and automated GTA welding systems. Lab: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 253(1) Course ID: 004607
Pipe Fitting and Template Development Lab
Provides experiences in pipe template development and job knowledge and experience with the techniques and tools used to field layout, cut, and fit the various pipe joints that are used in pipe trades. Lab: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 298(1 - 6) Course ID: 004443
Instructor Consent Required
Welding Practicum
Provides on-the-job work experience related to the student's educational objectives. Students participating in the Practicum do not receive compensation. Laboratory: 1-6 credits (30-180 contact hours/30:1 ratio). Prerequisite: Consent of Instructor.
Components: Practicum Attributes: Technical

WLD 299(1 - 6) Course ID: 004588
Instructor Consent Required
Cooperative Education Program
Provides supervised on-the-job work experience related to the student's educational objectives. Prerequisite: Consent of Instructor.
Components: Co-Op Attributes: Technical
WMT 160(2) Course ID: 002178
Wood Finishing
This course is an overview of contemporary spray finishing materials and processes for millwork assemblies. Each student will learn to set-up and troubleshoot a variety of common finishing systems while experimenting with finishing materials and supplies.
Components: Lecture Attributes: Technical

WMT 198(2 - 4) Course ID: 002179
Instructor Consent Required
Practicum
The practicum provides supervised work experience related to the student's educational objective. Students participating in the practicum do not receive compensation. The course may be taken for 2 - 4 credits. Prerequisite: Permission of the Instructor
Components: Practicum Attributes: Technical

WMT 199(2) Course ID: 002180
Instructor Consent Required
Cooperative Education
Co-op provides supervised work experience related to the student's educational objectives. Students participating in the cooperative education program receive compensation for their work. Prerequisite: Permission of the Instructor, Co-Op. 2 credits (150 contact hours).
Components: Co-Op

WMT 230(2) Course ID: 002184
Introduction to Panel Processing
An overview of the terminology, materials, processing equipment and related software utilized by panel processing manufacturers of residential and commercial case work. Emphasis will be placed on the design and fabrication of frameless cabinetry to the use of panel saws, edgebanders, CNC boring equipment and case clamp's. Lecture: 2 credits (60 contact hours).
Components: Lecture Attributes: Technical

WMT 240(4) Course ID: 002185
Cabinet Making Technology
This course is an overview of the cabinet and store fixtures industries. Emphasis will be placed on the design and construction of face frame as well as frameless (32mm) systems. Each student will plan and build a vanity, kitchen cabinet or store fixture which utilizes contemporary casework techniques. Prerequisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).
Components: Lecture

WMT 250(4) Course ID: 002186
Furniture Technology
Furniture design principles, structural considerations, joinery, fasteners, veneering, and use of specialized machines for complex operations are the focus of this course. Each student will plan and build a piece of furniture which includes at least one drawer, a door and some veneering. Prerequisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).
Components: Lecture

WMT 260(4) Course ID: 002187
Millwork Technology
Design of moulding, doors, and door frames; windows; stairs; and mantels are the focus of this course. Emphasis will be placed on construction principles, joinery, and fasteners for millwork assemblies. Each student will build one or more millwork items. Prerequisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).
Components: Lecture

WMT 270(2) Course ID: 002188
Moulder/Grinder Operation
This course is an introduction to the setup, operation, and maintenance of moulding and grinding equipment. The student will use tools, measuring devices and visual inspection techniques to ensure quality to customer specifications. Students will set up and operate a moulder or plane, shape and groove woodstock. Students will read work tickets and examine the pattern shape to determine moulder setup procedure and type of woodstock to be cut. Prerequisite: Permission of the Instructor. Lecture: 2 credits (60 contact hours).
Components: Lecture Attributes: Technical

WMT 280(2) Course ID: 002189
Estimating
This course is an introduction to estimating costs and materials for wood products. Special emphasis will be placed on projecting material and labor costs for custom wood products as well as mass produced items. Prerequisite: Permission of the Instructor. Lecture: 2 credits (60 contact hours).
Components: Lecture

WMT 290(4) Course ID: 002190
Advanced Wood Processing
This course is a capstone experience for advanced wood processing technicians involving the integration of computer aided design and world-class manufacturing of wood products. Prerequisite: Permission of the Instructor. Lecture: 4 credits (120 contact hours).
Components: Lecture

WPP 2001(1) Course ID: 016787
Soft Skills
Workplace Principles examines the changing workforce and the skills needed to adapt to constantly changing demands and expectations. The course includes but is not limited to problem solving, teamwork, time management, and self-management skills. Lecture: 1.0 credits (15 contact hours).
Components: Lecture Attributes: Technical

WPP 2002(1) Course ID: 016788
Job Search
Workplace Principles examines the changing workforce and the skills needed to adapt to constantly changing demands and expectations. The course includes but is not limited to problem solving, teamwork, time management, and self-management skills. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

WPP 2003(1) Course ID: 016789
Employment Preparation
Workplace Principles examines the changing workforce and the skills needed to adapt to constantly changing demands and expectations. The course includes but is not limited to problem solving, teamwork, time management, and self-management skills. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

ZOO Zoo Technology
ZOO 230(3 - 6) Course ID: 005347
Applied Experiences in Zoo Technology
Provides experience working in a fully accredited zoo and exposure to zookeeping with many facets of animal husbandry. Practicum: 3 - 6 credits (180-360 contact hours).
Components: Practicum Attributes: Technical
Appendix A

Determination of Residency Status for Admission and Tuition Purposes

13 KAR 2.045.

RELATETO: KRS Chapter 13B, 164.020, 164.030, 164A.330(6)

STATUTORY AUTHORITY: KRS 164.020(8)

NECESSITY, FUNCTION, AND CONFORMITY: KRS 164.020(8) requires the Council on Postsecondary Education to determine tuition and approve the minimum qualifications for admission to a state postsecondary education institution and authorizes the Council to set different tuition amounts for residents of Kentucky and for nonresidents. This administrative regulation establishes the procedure and guidelines for determining the residency status of a student who is seeking admission to, or who is enrolled at, a state-supported postsecondary education institution.

Section 1 Definitions

(1) “Academic term” means a division of the school year during which a course of studies is offered, and includes a semester, quarter, or single consolidated summer term as defined by the institution.

(2) “Continuous enrollment” means enrollment in a state-supported postsecondary education institution at the same degree level for consecutive terms, excluding summer term, since the beginning of the period for which continuous enrollment is claimed unless a sequence of continuous enrollment is broken due to extenuating circumstances beyond the student’s control, including serious personal illness or injury, or illness or death of a parent.

(3) “Degree level” means enrollment in a course or program that could result in the award of a:

   (a) Certificate, diploma, or other program award at an institution;
   (b) Baccalaureate degree or lower, including enrollment in a course by a nondegree-seeking postbaccalaureate student;
   (c) Graduate degree or graduate certification other than a first-professional degree in law, medicine, dentistry, or “Pharm. D.”;
   (d) Professional degree in law, medicine, dentistry, or “Pharm. D.”.

(4) “Dependent person” means a person who cannot demonstrate financial independence from parents or persons other than a spouse and who does not meet the criteria for independence established in Section 5 of this administrative regulation.

(5) “Determination of residency status” means the decision of a postsecondary education institution that may include a formal hearing that results in the classification of a person as a Kentucky resident or as a nonresident for admission and tuition assessment purposes.

(6) “Domicile” means a person’s true, fixed, and permanent home and is the place where the person intends to remain indefinitely, and to which the person expects to return if absent without intending to establish a new domicile elsewhere.

(7) “Full-time employment” means continuous employment for at least forty-eight (48) weeks at an average of at least thirty (30) hours per week.

(8) “Independent person” means a person who demonstrates financial independence from parents or persons other than a spouse and who meets the criteria for independence established in Section 5 of this administrative regulation.

(9) “Institution” means an entity defined by KRS 164.001(12) if the type of institution is not expressly stated and includes the Kentucky Virtual University, the Council on Postsecondary Education, and the Kentucky Higher Education Assistance Authority.

(10) “Kentucky resident” means a person determined by an institution for tuition purpose to be domiciled in and a resident of Kentucky as determined by this administrative regulation.

(11) “Nonresident” means a person who:

   (a) Is domiciled outside by Kentucky;
   (b) Currently maintains legal residence outside Kentucky; or
   (c) Is not a Kentucky resident as determined by this administrative regulation.

(12) “Parent” means one (1) of the following:

   (a) A person’s father or mother; or
   (b) A court-appointed legal guardian if:
      1. The guardianship is recognized by an appropriate court within the United States;
      2. There was a relinquishment of the rights of the parents; and
      3. The guardianship was not established primarily to confer Kentucky residency on the person.

(13) “Preponderance of the evidence” means the greater weight of evidence or evidence that is more credible and convincing to the mind.

(14) “Residence” means the place of abode of a person and the place where the person is physically present most of the time for a noneducational purpose in accordance with Section 3 of this administrative regulation.

(15) “Student financial aid” means all forms of payments to a student if one

   (1) condition of receiving the payment is the enrollment of the student at an institution, and includes student employment by the institution or a graduate assistantship.
   (2) “Sustenance” means living expenses including room, board, maintenance, transportation, and educational expenses including tuition, fees, books, and supplies.

Section 2 Scope

(1) State-supported postsecondary education institutions were established and are maintained by the Commonwealth of Kentucky primarily for the benefit of qualified residents of Kentucky. The substantial commitment of public resources to postsecondary education is predicated on the proposition that the state benefits significantly from the existence of an educated citizenry. As a matter of policy, access to postsecondary education shall be provided so far as feasible at reasonable cost to a qualified individual who is domiciled in Kentucky and who is a resident of Kentucky.

(2) The Council on Postsecondary Education may require a student who is neither domiciled in nor a resident of Kentucky to meet higher admission standards and to pay a higher level of tuition than resident students.

(3) This administrative regulation shall apply to all student residency determinations regardless of circumstances, including residency determinations made by the state-supported institutions for prospective and currently-enrolled students; the Southern Regional Education Board for contract spaces; reciprocity agreements, if appropriate; the Kentucky Virtual University; academic common market programs; the Kentucky Educational Excellence Scholarship Program; and other state student financial aid programs, as appropriate.

Section 3 Determination of Residency Status; General Rules

(1) A determination of residency shall include:

   (a) An initial determination of residency status by an institution during the admission process or upon enrollment in an institution for a specific academic term or for admission into a specific academic program;
   (b) A reconsideration of a determination of residency status by an institution based upon a changed circumstance; or
   (c) A formal hearing conducted by an institution upon request of a student after other administrative procedures have been completed.

(2) An initial determination of residency status shall be based upon:

   (a) The facts in existence when the credentials established by an institution for admission for a specific academic term have been received and during the period of review by the institution;
   (b) Information derived from admissions materials;
   (c) If applicable, other materials required by an institution and consistent with this administrative regulation; and
   (d) Other information available to the institution from any source.

(3) An individual seeking a determination of residency status shall demonstrate that status by a preponderance of the evidence.

(4) A determination of residency status shall be based upon verifiable circumstances or actions.

(5) Evidence and information cited as the basis for Kentucky domicile and residency shall accompany the application for a determination of residency status.

(6) A student classified as a nonresident shall retain that status until the student is officially reclassified by an institution.

(7) A student may apply for a review of a determination of residency status once after other administrative procedures have been completed.

(8) If an institution has information that a student’s residency status may be incorrect, the institution shall review and determine the student’s correct residency status.

(9) If the Council on Postsecondary Education has information that an institution’s determination of residency status for a student may be incorrect, it may require the institution to review the circumstances and report the results of that review.

Appendix
(10) An institution shall impose a penalty or sanction against a student who gives incorrect or misleading information to an institutional official, including payment of nonresident tuition for each academic term for which resident tuition was assessed based on an improper determination of residency status. The penalty or sanction may also include:
(a) Student discipline by the institution through a policy written and disseminated to students; or
(b) Criminal prosecution.

Section 4 Presumptions Regarding Residency Status

(1) In making a determination of residency status, it shall be presumed that a person is a nonresident if:
(a) A person is, or seeks to be, an undergraduate student and admissions records show the student to be a graduate of an out-of-state high school within five (5) years prior to a request for a determination of residency status;
(b) A person’s admissions records indicate the student’s residence to be outside of Kentucky at the time of application for admission;
(c) A person moves to Kentucky primarily for the purpose of enrollment in an institution;
(d) A person moves to Kentucky and within twelve (12) months enrolls at an institution more than half time;
(e) A person has a continuous absence of one (1) year from Kentucky; or
(f) A person attended an out-of-state higher education institution during the past academic year and paid in-state tuition at that institution.

(2) A presumption arising from subsection (1) of this section shall only be overcome by preponderance of evidence sufficient to demonstrate that a person is domiciled in and is a resident of Kentucky.

Section 5 Determination of Whether a Student is Dependent or Independent

(1) In a determination of residency status, an institution shall first determine whether a student is dependent or independent. This provision is predicated on the assumption that a dependent person lacks the financial ability to live independently of the person upon whom the student is dependent and therefore lacks the ability to form the requisite intent to establish domicile. A determination that a student is independent shall be one (1) step in the overall determination of whether a student is or is not a resident of Kentucky.

(2) In determining the dependent or independent status of a person, the following information shall be considered as well as other relevant information available at the time the determination is made:

(a) Whether the person has been claimed as a dependent on the federal or state tax returns of a parent or other person for the year preceding the date of application for a determination of residency status; or
(b) Whether the person is no longer claimed by a parent or other person as a dependent or as an exemption for federal and state tax purposes; and
(c) Whether the person has financial earnings and resources independent of a person other than an independent spouse necessary to provide for the person’s own sustenance.

(3) An individual who enrolls at an institution immediately following graduation from high school and remains enrolled shall be presumed to be a dependent person unless the contrary is evident from the information submitted.

(4) Domicile may be inferred from high school and remains enrolled shall be presumed to be a dependent person unless the contrary is evident from the information submitted.

(5) Whether the person has been claimed as a dependent on the federal or state tax returns of a parent or other person for the year preceding the date of application for a determination of residency status; or

(6) Financial assistance from or a loan made by a parent or family member other than an independent spouse, if used for sustenance of the student:

(a) Shall not be considered in establishing a student as independent; and
(b) Shall be a factor in establishing that a student is dependent.

Section 6 Effect of a Determination of Dependent Status on a Determination of Residency Status

(1) The effect of a determination that a person is dependent shall be:
(a) The domicile and residency of a dependent person shall be the same as either parent. The domicile and residency of the parent shall be determined in the same manner as the domicile and residency of an independent person; and
(b) The domicile and residency of a dependent person whose parents are divorced, separated, or otherwise living apart shall be Kentucky if either parent is domiciled in and is a resident of Kentucky regardless of which parent has legal custody or is entitled to claim that person as a dependent pursuant to federal or Kentucky income tax provisions.

(2) If the parent or parents of a dependent person are Kentucky residents and are domiciled in Kentucky but subsequently move from the state:
(a) The dependent person shall be considered a resident of Kentucky while in continuous enrollment at the degree level in which currently enrolled; and
(b) The dependent person’s residency status shall be reassured if continuous enrollment is broken or the current degree level is completed.

Section 7 Member of Armed Forces of the United States, Spouse and Dependents; Effect on a Determination of Residency Status

(1) A member, spouse, or dependent of a member whose domicile and residency was Kentucky at the time of induction into the Armed Forces of the United States, and who maintains Kentucky as home of record and permanent address, shall be entitled to Kentucky residency status:
(a) During the member’s time of active service; or
(b) If the member returns to this state within six (6) months of the date of the member’s discharge from active duty.

(2) A member of the armed services on active duty for more than thirty (30) days and who has a permanent duty station in Kentucky shall be classified as a Kentucky resident and shall be entitled to in-state tuition as shall the spouse or a dependent child of the member.

(b) A member, spouse, or dependent of a member shall not lose Kentucky residency status if the member is transferred on military orders while the member, spouse, or dependent requesting the status is in continuous enrollment at the degree level in which currently enrolled.

(3) Membership in the National Guard or civilian employment at a military base alone shall not qualify a person for Kentucky residency status under the provisions of subsections (1) and (2) of this section. If a member of the Kentucky National Guard is on active duty status for a period of not less than thirty (30) days, the member shall be considered a Kentucky resident, as shall the spouse of a dependent child of the member.

(4) A person’s residency status established pursuant to this section shall be reassessed if the qualifying condition is terminated.

Section 8 Status of Nonresident Aliens; Visas and Immigration

(1) A person holding a permanent residency visa or classified as a political refugee shall establish domicile and residency in the same manner as another person.

(b) Time spent in Kentucky and progress made in fulfilling the conditions of domicile and residency prior to obtaining permanent residency status shall be considered in establishing Kentucky domicile and residency.

(2) A person holding a nonimmigrant visa with designation A, E, G, H-1, H-4 if accompanying a person with an H-1 visa, I, K, L, N, R, shall establish domicile and residency the same as another person.

(b) A person who has petitioned the federal government to reclassify his or her visa status based on marriage to a Kentucky resident and who can demonstrate that the petition has been filed and acknowledged by the federal government, may establish Kentucky domicile and residency at that time.

(3) A dependent person holding a nonimmigrant visa with designation B, C, D, F, H-2, H-3, H-4 if accompanying a person with an H-2 or H-3 visa, M, J, O, P, Q, S, T, D, or TN shall not be classified as a Kentucky resident, because that person does not have the capacity to remain in Kentucky indefinitely and therefore cannot form the requisite intent necessary to establish domicile as defined in Section 1(6) of this administrative regulation.

(b) A dependent person holding a visa as described in paragraph (a) of this subsection, who is a dependent of a person holding a visa as described in subsection (2) of this section, shall be considered as having the visa of the parent.

(c) A dependent person holding a visa described in subsection (2) of this section or paragraph (a) of this subsection, if a parent is a citizen of the United States and is a resident of and domiciled in Kentucky, shall be a resident of the United States for the purposes of this administrative regulation.

(4) A person shall be a Kentucky resident for the purpose of this administrative regulation if the person graduated from a Kentucky high school and:
(a) Is an undocumented alien;
(b) Holds a visa listed in subsections (2) or (3) of this section; or
(c) Is a dependent of a person who holds a visa listed in subsections (2) or (3) of this section.

(5) Except as provided in paragraph (b) of this subsection, a person who has petitioned the federal government to reclassify visa status shall continue to be ineligible until the petition has been decided by the federal government.

(a) A person who has petitioned the federal government to reclassify his or her visa status based on marriage to a Kentucky resident and who can demonstrate that the petition has been filed and acknowledged by the federal government, may establish Kentucky domicile and residency at that time.

Section 9 Beneficiaries of a Kentucky Educational Savings Plan Trust

A beneficiary of a Kentucky Educational Savings Plan Trust shall be granted residency status if the beneficiary meets the requirements of KRS 164A.330(6).
Appendix

includes the following actions:

(1) A student shall report under the proper residency classification, which in son shall be subject to the provisions for continuous enrollment, if applicable.

upon a request by the student or a review initiated by the institution.

ents of a dependent person changes, an institution shall reassess residency either

(1) If a person becomes independent or if the residency status of a parent or par

not a resident of Kentucky.

(4) The absence of a fact contained in subsection (3) of this section shall have

probative value in a determination that a person is domiciled in and is a resident

because of the ease and convenience in completing them, shall have limited

order to provide basic sustenance.

(b) A student or prospective student shall respond to all requests for informa-

tion regarding domicile or residency requested by an institution.

(2) The following facts, although not conclusive, shall have probative value in

their entirety and shall be individually weighted, appropriate to the facts and cir-

cumstances in each determination of residency:

(a) Acceptance of an offer of full-time employment or transfer to an employer

in Kentucky or contiguous area while maintaining residence and domicile in

Kentucky;

(b) Continuous physical presence in Kentucky while in a nonstudent status

for the twelve (12) months immediately preceding the start of the academic

term for which a classification of Kentucky residency is sought;

(c) Filing a Kentucky resident income tax return for the calendar year pre-

ceding the date of application for a change in residency status; or

(2) Payment of Kentucky withholding taxes while employed during the calendar

year for which a change in classification is sought;

(d) Full-time employment of at least one (1) year while living in Kentucky;

(e) Attendance as a full-time, nonresident student at an out-of-state institu-

tion based on a determination by that school that the person is a resident of

Kentucky;

(f) Abandonment of a former domicile or residence and establishing domicile

and residency in Kentucky with application to or attendance at an institution

following and incidental to the change in domicile and residency;

(g) Obtaining licensing or certification for a professional and occupational

purpose in Kentucky;

(h) Payment of real property taxes in Kentucky;

(i) Ownership of real property in Kentucky, if the property was used by the

student as a residence preceding the date of application for a determination of

residency status;

(j) Marriage of an independent student to a person who was domiciled in and

a resident of Kentucky prior to the marriage; and

(k) The extent to which a student is dependent on student financial aid in

order to provide basic sustenance.

(3) Except as provided in subsection (4) of this section, the following facts,

because of the ease and convenience in completing them, shall have limited

probative value in a determination that a person is domiciled in and is a resident

of Kentucky:

(a) Kentucky automobile registration;

(b) Kentucky driver’s license;

(c) Registration as a Kentucky voter;

(d) Long-term lease of at least twelve (12) consecutive months of noncol-

legiate housing; and

(e) Continued presence in Kentucky during academic breaks.

(4) The absence of a fact contained in subsection (3) of this section shall have

significant probative value in determining that a student is not domiciled in or is

not a resident of Kentucky.

Section 11 Effect of a Change in Circumstances on Residency Status

(1) If a person becomes independent or if the residency status of a parent or par-

ents of a dependent person changes, an institution shall reassess residency either

upon a request by the student or a review initiated by the institution.

(2) Upon transfer to a Kentucky institution, a student’s residency status shall be

assessed by the receiving institution.

(3) A reconsideration of a determination of residency status for a dependent per-

son shall be subject to the provisions for continuous enrollment, if applicable.

Section 12 Student Responsibilities

(1) A student shall report under the proper residency classification, which in-

cludes the following actions:

(a) Raising a question concerning residency classification;

(b) Making application for change of residency classification with the design-

nated office or person at the institution; and

(c) Notifying the designated office or person at the institution immediately

upon a change in residency.

(2) If a student fails to notify an institutional official of a change in residency, an

institutional official may investigate and evaluate the student’s residency status.

(3) If a student fails to provide, by the date specified by the institution,

information required by an institution in a determination of residency status, the

student shall be notified by the institution that the review has been canceled and

that no determination has been made.

(b) Notification shall be made by registered mail, return receipt requested.

(c) Notification shall be made within ten (10) calendar days after the deadline

for receipt of materials has passed.

(4) The formal hearing conducted by an institution and the final recommended

order shall be a final administrative action with no appeal to the Council on

Postsecondary Education.

(b) A formal administrative hearing conducted by the Council on Postsecond-

ary Education for residency determinations related to eligibility for the Aca-

demic Common Market and Regional Contract Programs shall be conducted

pursuant to the provisions of KRS Chapter 13B and 13 KAR 2:070. The

recommended order issued by the President of the Council shall be a final

administrative action.

(5) A student shall not be entitled to appeal a determination of residency status if

the determination made by an institution is because a student has failed to meet

published deadlines for the submission of information as set forth in subsection

(3) of this section. A student may request a review of a determination of resi-

dency status in a subsequent academic term.

Section 13 Institutional Responsibilities Each institution shall:

(1) Provide for an administrative appeals process that includes a residency appeals

officer to consider student appeals of an initial residency determination and

which shall include a provision of fourteen (14) days for the student to appeal the

residency appeals officer’s determination;

(2) Establish a residency review committee to consider appeals of residency

determinations by the residency appeals officer. The residency review committee

shall make a determination of student residency status and notify the student in

writing within forty-five (45) days after receipt of the student appeal;

(3) Establish a formal hearing process as described in Section 14 of this admin-

istrative regulation; and

(4) Establish written policies and procedures for administering the responsi-

bilities established in subsections (1), (2), and (3) of this section and that are:

(a) Approved by the institution’s governing board;

(b) Made available to all students; and

(c) Filed with the council.

Section 14 Formal Institutional Hearing

(1) A student who appeals a determination of residency by a residency review

committee shall be granted a formal hearing by an institution if the request is

made by a student in writing within fourteen (14) calendar days after notification

of a determination by a residency review committee.

(2) If a request for a formal hearing is received, an institution shall appoint a

hearing officer to conduct a formal hearing. The hearing officer shall:

(a) Be a person not involved in determinations of residency at an institution

except for formal hearings; and

(b) Not be an employee in the same organizational unit as the residency ap-

peals officer.

(3) An institution shall have written procedures for the conduct of a formal hear-

ing that have been adopted by the board of trustees or regents, as appropriate, and

that provide for:

(a) A hearing officer to make a recommendation on a residency appeal;

(b) Guarantees of due process to a student that include:

1. The right of a student to be represented by legal counsel; and

2. The right of a student to present information and to present testimony and

information in support of a claim of Kentucky residency; and

(c) A recommendation to be issued by the hearing officer.

(4) An institution’s formal hearing procedures shall be filed with the Council on

Postsecondary Education and shall be available to a student requesting a formal

hearing.

Section 15 Cost of Formal Hearings

(1) An institution shall pay the cost for all residency determinations including the

cost of a formal hearing.

(2) A student shall pay for the cost of all legal representation in support of the

student’s claim of residency.

(17 Ky.R. 2557; eff. 4-5-1991; Am. 22 Ky.R. 1656; 1988; eff. 5-16-1996; 23

Ky.R. 3380; 3797; 4099; eff. 6-16-1997; 24 Ky.R. 2136; 2705; 25 Ky.R. 51; eff.

7-13-1998; 25 Ky.R. 2177; 2577; 2287; eff. 6-7-1999; 749; 1238; eff. 11-12-

2002; 36 Ky.R. 1083; 1951; 2033-M; eff. 4-2-2010.)
# Appendix B

## Math Course Transitions

### Crosswalk – Mathematics

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<th>New Courses</th>
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<td>MAT 159 Analytical Geometry and Trigonometry</td>
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<tr>
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<td>MAT 154 Trigonometry</td>
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<td>MA 213 Calculus III</td>
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<tr>
<td>Dropped</td>
<td>MA 214 Calculus IV</td>
</tr>
<tr>
<td>Dropped</td>
<td>MA 241 Geometry for Middle School Teachers</td>
</tr>
<tr>
<td>Dropped</td>
<td>MAH 155 Applied Mathematics</td>
</tr>
<tr>
<td>Dropped</td>
<td>MAT 115 Mathematics for Middle &amp; Elementary Teachers I</td>
</tr>
<tr>
<td>Dropped</td>
<td>MAT 121 Mathematics for Business</td>
</tr>
<tr>
<td>Dropped</td>
<td>MAT 125 Technical Mathematics</td>
</tr>
<tr>
<td>Dropped</td>
<td>MAT 215 Mathematics for Middle &amp; Elementary Teachers II</td>
</tr>
<tr>
<td>Dropped</td>
<td>MATH 109 Technical Mathematics</td>
</tr>
<tr>
<td>Dropped</td>
<td>MATH 151 Mathematics for Elementary Education I</td>
</tr>
<tr>
<td>Dropped</td>
<td>MATH 152 Mathematics for Elementary Education II</td>
</tr>
<tr>
<td>Dropped</td>
<td>MATH 211 Mathematics for Elementary Teachers I</td>
</tr>
<tr>
<td>Dropped</td>
<td>MATH 212 Mathematics for Elementary Teachers II</td>
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<tr>
<td>Dropped</td>
<td>STA 200 Statistics: A Force in Human Judgment</td>
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<tr>
<td>Dropped</td>
<td>STA 291 Statistical Methods</td>
</tr>
<tr>
<td>MAT 100 College Algebra Workshop</td>
<td>MT 100 College Algebra Workshop</td>
</tr>
<tr>
<td>MAT 105 Business Mathematics</td>
<td>MT 105 Business Mathematics</td>
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<tr>
<td>MAT 110 Applied Mathematics</td>
<td>MT 110 Applied Mathematics</td>
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<tr>
<td>MAT 1101 Logic and Reasoning</td>
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<tr>
<td>MAT 1102 Statistics</td>
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<tr>
<td>MAT 1103 Algebra and Graphing</td>
<td>MT 1103 Algebra and Graphing</td>
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<tr>
<td>MAT 1104 Consumer Math, Geometry and Measurement</td>
<td>MT 1104 Consumer Math, Geometry and Measurement</td>
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<tr>
<td>MAT 116 Technical Mathematics</td>
<td>MT 115 Technical Mathematics</td>
</tr>
<tr>
<td>MAT 126 Technical Algebra and Trigonometry</td>
<td>MT 125 Technical Algebra and Trigonometry</td>
</tr>
<tr>
<td>Dropped</td>
<td>MT 139 Instructor Consent Required AAS Mathematics: (Topic)</td>
</tr>
<tr>
<td>MAT 146 Contemporary College Mathematics</td>
<td>MT 145 Contemporary College Mathematics</td>
</tr>
<tr>
<td>MAT 150 College Algebra</td>
<td>MT 150 College Algebra and Functions</td>
</tr>
<tr>
<td>MAT 155 Trigonometry</td>
<td>MT 155 Trigonometry</td>
</tr>
<tr>
<td>MAT 160 Precalculus</td>
<td>MT 160 Precalculus</td>
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<tr>
<td>MAT 165 Finite Mathematics and its Applications</td>
<td>MT 165 Finite Mathematics and its Applications</td>
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<tr>
<td>MAT 170 Brief Calculus with Applications</td>
<td>MT 170 Brief Calculus with Applications</td>
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<tr>
<td>MAT 175 Calculus I</td>
<td>MT 175 Calculus I</td>
</tr>
<tr>
<td>MAT 185 Calculus II</td>
<td>MT 185 Calculus II</td>
</tr>
<tr>
<td>MAT 205 Mathematics For Elementary and Middle School Teachers I</td>
<td>MT 205 Mathematics For Elementary and Middle School Teachers I</td>
</tr>
<tr>
<td>MAT 206 Mathematics For Elementary and Middle School Teachers II</td>
<td>MT 206 Mathematics For Elementary and Middle School Teachers II</td>
</tr>
<tr>
<td>MAT 261 Introduction to Number Theory</td>
<td>MT 261 Introduction to Number Theory</td>
</tr>
<tr>
<td>MAT 275 Calculus III</td>
<td>MT 275 Calculus III</td>
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<tr>
<td>MAT 285 Differential Equations</td>
<td>MT 285 Differential Equations</td>
</tr>
<tr>
<td>STA 220 Statistics</td>
<td>ST 291 Statistical Methods</td>
</tr>
</tbody>
</table>
**Historical Mathematics Course Transitions**

Below is a table clarifying the math course transition that took place Fall 2004. Courses with the MT prefix that are below the 100-level are transitional courses. MT courses between 100 and 139 are specifically designed for occupational/technical programs. Courses numbered 140 and above are designed as transfer courses.

<table>
<thead>
<tr>
<th>New Course</th>
<th>Credit</th>
<th>Prereq. Course</th>
<th>Replaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT 050 Dev. Math Workshop</td>
<td>1-2</td>
<td>None</td>
<td>MAH 065, MTH 199</td>
</tr>
<tr>
<td>MT 055 Pre-Algebra</td>
<td>3</td>
<td>None</td>
<td>MAH 060, MTH 100</td>
</tr>
<tr>
<td>MT 065 Basic Algebra w/Measurement</td>
<td>3</td>
<td>MT 055</td>
<td>MAH 070, MTH 110</td>
</tr>
<tr>
<td>MT 075 Pre-College Geometry</td>
<td>3</td>
<td>MT 055</td>
<td>MAH 075</td>
</tr>
<tr>
<td>MT 100 College Algebra Workshop</td>
<td>2</td>
<td>MAH 100</td>
<td></td>
</tr>
<tr>
<td>MT 105 Business Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 121</td>
</tr>
<tr>
<td>MT 110 Applied Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 151</td>
</tr>
<tr>
<td>MT 115 Technical Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 125, MTH 120, MTH 130, MTH 150</td>
</tr>
<tr>
<td>MT 120 Intermediate Algebra w/Applications</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 083, MA 108, MTH 160</td>
</tr>
<tr>
<td>MT 122 Intermediate Algebra: A Functional Approach</td>
<td>4</td>
<td>MT 065</td>
<td>MAH 080</td>
</tr>
<tr>
<td>MT 125 Technical Algebra &amp; Trigonometry</td>
<td>3</td>
<td>MT 065</td>
<td>MTH 170, MTH 175, MTH 101</td>
</tr>
<tr>
<td>MT 139 AAS Mathematics Application: (Topic)</td>
<td>1-3</td>
<td>MT 120 or MT 122</td>
<td>MT 107</td>
</tr>
<tr>
<td>MT 145 Contemporary College Mathematics</td>
<td>3</td>
<td>MT 120 or MT 122 or MT 125</td>
<td>MT 109</td>
</tr>
<tr>
<td>MT 150 College Algebra</td>
<td>3</td>
<td>MT 120 or MT 122 or MT 125</td>
<td>MT 109</td>
</tr>
<tr>
<td>MT 155 Trigonometry</td>
<td>3</td>
<td>MT 120 or MT 122 or MT 125</td>
<td>MT 109</td>
</tr>
<tr>
<td>MT 190 Mathematics Workshop</td>
<td>1 – 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Mathematics Crosswalk of Courses for Purpose of Pre-requisites**

| MA 110 – Analytical Geometry and Trigonometry | 4 | MT 160 – Pre-calculus | 5 |
| MA 162 – Finite Mathematics and Its Applications | 3 | MT 165 – Finite Mathematics and Its Applications | 3 |
| MA 123 – Elementary Calculus               | 3 | MT 170 – Brief Calculus with Applications | 3 |
| MA 113 – Calculus I                        | 4 | MT 175 – Calculus I | 5 |
| MA 114 – Calculus II                       | 4 | MT 185 – Calculus II | 5 |
| MA 213 – Calculus III                      | 4 | MT 275 – Calculus III | 4 |
| MA 214 – Calculus IV                       | 3 | MT 285 – Differential Equations | 3 |
# Biology Crosswalk

This table includes changes made to Biology courses effective Fall 2010.

<table>
<thead>
<tr>
<th>New Course #</th>
<th>Old Course #</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 026</td>
<td>BSL 025</td>
<td>Orientation to College Biology</td>
</tr>
<tr>
<td>BIO 112</td>
<td>BIO 103</td>
<td>Basic Ideas of Biology</td>
</tr>
<tr>
<td>BIO 113</td>
<td>BIO 111</td>
<td>Introduction to Biology Lab</td>
</tr>
<tr>
<td>BIO 114</td>
<td>BSL 102</td>
<td>Biology I</td>
</tr>
<tr>
<td>BIO 115</td>
<td>BSL 100</td>
<td>Biology Laboratory I</td>
</tr>
<tr>
<td>BIO 116</td>
<td>BSL 103</td>
<td>Biology II</td>
</tr>
<tr>
<td>BIO 117</td>
<td>BSL 101</td>
<td>Biology Laboratory II</td>
</tr>
<tr>
<td>BIO 118</td>
<td>-----------</td>
<td>Microbes and Society</td>
</tr>
<tr>
<td>BIO 220</td>
<td>BIO 204</td>
<td>The Genetic Perspective</td>
</tr>
<tr>
<td>Dropped</td>
<td>BSL 214</td>
<td>Medical Microbiology</td>
</tr>
<tr>
<td>Dropped</td>
<td>BSL 244</td>
<td>Principles of Environmental Science</td>
</tr>
<tr>
<td>Dropped</td>
<td>PGY 206</td>
<td>Elementary Physiology</td>
</tr>
<tr>
<td>BIO 120</td>
<td>BIO 102</td>
<td>Human Ecology</td>
</tr>
<tr>
<td>BIO 121</td>
<td>-</td>
<td>Introduction to Ecology Laboratory</td>
</tr>
<tr>
<td>BIO 122</td>
<td>BSL 116</td>
<td>Introduction to Conservation Ecology</td>
</tr>
<tr>
<td>BIO 124</td>
<td>BSL 120</td>
<td>Principles of Ecology</td>
</tr>
<tr>
<td>BIO 130</td>
<td>BSL 109</td>
<td>Aspects of Human Biology</td>
</tr>
<tr>
<td>BIO 135</td>
<td>BSL 107</td>
<td>Basic Anatomy and Physiology w/ Lab</td>
</tr>
<tr>
<td>BIO 137</td>
<td>BSL 110</td>
<td>Human Anatomy and Physiology I</td>
</tr>
<tr>
<td>BIO 139</td>
<td>BSL 111</td>
<td>Human Anatomy and Physiology II</td>
</tr>
<tr>
<td>BIO 140</td>
<td>BIO 106/BSL 140</td>
<td>Botany</td>
</tr>
<tr>
<td>BIO 141</td>
<td>BIO 106/BSL 140 and BIO 107</td>
<td>Botany with Laboratory</td>
</tr>
<tr>
<td>BIO 142</td>
<td>BIO 104/BSL 160</td>
<td>Zoology</td>
</tr>
<tr>
<td>BIO 143</td>
<td>BIO 104/BSL 160 and BIO 105</td>
<td>Zoology with Laboratory</td>
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<tr>
<td>BIO 150</td>
<td>BIO 150</td>
<td>Principles of Biology I</td>
</tr>
<tr>
<td>BIO 151</td>
<td>BIO 151</td>
<td>Principles of Biology Laboratory I</td>
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<td>BIO 152</td>
<td>BIO 152</td>
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<tr>
<td>BIO 153</td>
<td>BIO 153</td>
<td>Principles of Biology Laboratory II</td>
</tr>
<tr>
<td>BIO 220</td>
<td>BIO 204</td>
<td>The Genetic Perspective</td>
</tr>
<tr>
<td>Dropped</td>
<td>BSL 214</td>
<td>Medical Microbiology</td>
</tr>
<tr>
<td>Dropped</td>
<td>BSL 244</td>
<td>Principles of Environmental Science</td>
</tr>
<tr>
<td>Dropped</td>
<td>PGY 206</td>
<td>Elementary Physiology</td>
</tr>
<tr>
<td>BIO 224</td>
<td>BSL 215</td>
<td>Introduction to Molecular and Cell Biology</td>
</tr>
<tr>
<td>BIO 225</td>
<td>BSL 212</td>
<td>Medical Microbiology w/ Lab</td>
</tr>
<tr>
<td>BIO 226</td>
<td>BIO 208</td>
<td>Principles of Microbiology</td>
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<tr>
<td>BIO 227</td>
<td>BIO 208/209</td>
<td>Principles of Microbiology with Laboratory</td>
</tr>
<tr>
<td>BIO 295</td>
<td>BSL 295</td>
<td>Independent Investigation in Biology</td>
</tr>
<tr>
<td>BIO 299</td>
<td>BSL 299</td>
<td>Selected Topics in Biology: Topic</td>
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## Crosswalk for Chemistry Courses

<table>
<thead>
<tr>
<th>Approved Course Prefix/Number</th>
<th>Approved Course Title Implementation Fall 2009</th>
<th>Old Course Prefix/Number</th>
<th>“OLD” Course Title</th>
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<tbody>
<tr>
<td>DEACTIVATED</td>
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<td></td>
</tr>
<tr>
<td>CHE 120</td>
<td>The Joy of Chemistry*</td>
<td>CHM 101</td>
<td>Chemistry: A Cultural Approach</td>
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<tr>
<td>CHE 125</td>
<td>The Joy of Chemistry Laboratory*</td>
<td>NEW</td>
<td></td>
</tr>
<tr>
<td>CHE 130</td>
<td>Introductory General and Biological Chemistry*</td>
<td>CHM 100</td>
<td>Introductory General and Biological Chemistry</td>
</tr>
<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry*</td>
<td>CHE 104</td>
<td>Introductory General Chemistry</td>
</tr>
<tr>
<td>CHE 145</td>
<td>Introductory General Chemistry Laboratory*</td>
<td>CHM 104</td>
<td>Introductory General Chemistry Laboratory</td>
</tr>
<tr>
<td>CHE 150</td>
<td>Introduction to Organic and Biological Chemistry*</td>
<td>CHE 106</td>
<td>Introduction to Inorganic, Organic, and Biochemistry</td>
</tr>
<tr>
<td>CHE 155</td>
<td>Introduction to Organic and Biological Chemistry Laboratory*</td>
<td>NEW</td>
<td></td>
</tr>
<tr>
<td>CHE 160</td>
<td>Preparation for General College Chemistry</td>
<td>CHM 102</td>
<td>Preparation for General College Chemistry</td>
</tr>
<tr>
<td>CHE 170</td>
<td>General College Chemistry I*</td>
<td>CHE 105</td>
<td>General College Chemistry I</td>
</tr>
<tr>
<td>CHE 173</td>
<td>General College Chemistry I Workshop</td>
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<tr>
<td>CHE 175</td>
<td>General College Chemistry Laboratory I*</td>
<td>CHM 105</td>
<td>General Chemistry Laboratory I</td>
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<tr>
<td>CHE 180</td>
<td>General College Chemistry II*</td>
<td>CHE 107</td>
<td>General College Chemistry II</td>
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<tr>
<td>CHE 183</td>
<td>General College Chemistry II Workshop</td>
<td>NEW</td>
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<tr>
<td>CHE 185</td>
<td>General College Chemistry Laboratory II*</td>
<td>CHM 107</td>
<td>General Chemistry Laboratory II</td>
</tr>
<tr>
<td>CHE 220</td>
<td>Analytical Chemistry*</td>
<td>CHE 226</td>
<td>Analytical Chemistry</td>
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<tr>
<td>CHE 270</td>
<td>Organic Chemistry I*</td>
<td>CHE 230</td>
<td>Organic Chemistry I</td>
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<tr>
<td>CHE 275</td>
<td>Organic Chemistry Laboratory I*</td>
<td>CHE 231</td>
<td>Organic Chemistry Laboratory I</td>
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<td>CHE 280</td>
<td>Organic Chemistry II*</td>
<td>CHE 232</td>
<td>Organic Chemistry II</td>
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<td>CHE 285</td>
<td>Organic Chemistry Laboratory II*</td>
<td>CHE 233</td>
<td>Organic Chemistry Laboratory II</td>
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<td>CHE 290</td>
<td>Selected Topics in Chemistry: (Topic)</td>
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<tr>
<td>CHE 295</td>
<td>Selected Topics in Chemistry Laboratory: (Topic)</td>
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<tr>
<td>CHE 299</td>
<td>Laboratory Research in Chemistry: (Topic)</td>
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<tr>
<td>DEACTIVATED</td>
<td></td>
<td>CHEM 175</td>
<td>Applied General and Organic Chemistry</td>
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*General Education Status
## Agricultural Technology: 2011-2012

<table>
<thead>
<tr>
<th>New Courses</th>
<th>Old Courses</th>
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<tbody>
<tr>
<td>AGR 125  Introduction to Fertilizers and Soils</td>
<td>AG 125  Introduction to Fertilizers and Soils</td>
</tr>
<tr>
<td>AGR 130  Field Applications in Agriculture</td>
<td>AG 130  Field Applications in Agriculture</td>
</tr>
<tr>
<td>AGR 140  Issues in Agriculture</td>
<td>AG 140  Issues in Agriculture</td>
</tr>
<tr>
<td>AGR 150  Agriculture Power</td>
<td>AG 150  Agriculture Power</td>
</tr>
<tr>
<td>AGR 165  Agriculture Seminar</td>
<td>AG 160  Agriculture Seminar</td>
</tr>
<tr>
<td>AGR 170  Introduction to Equipment, Machines, and Engines</td>
<td>AG 170  Introduction to Equipment, Machines, and Engines</td>
</tr>
<tr>
<td>AGR 180  Agriculture Internship I</td>
<td>AG 180  Agriculture Internship I</td>
</tr>
<tr>
<td>AGR 190  Agriculture Internship II</td>
<td>AG 190  Agriculture Internship II</td>
</tr>
<tr>
<td>AGR 200  Agriculture Internship III</td>
<td>AG 200  Agriculture Internship III</td>
</tr>
<tr>
<td>AGR 220  Computers in the Agriculture Environment</td>
<td>AG 220  Computers in the Agriculture Environment</td>
</tr>
<tr>
<td>AGR 230  Career Development in Agriculture</td>
<td>AG 230  Career Development in Agriculture</td>
</tr>
<tr>
<td>AGR 240  Introduction to Animal Science</td>
<td>AG 240  Introduction to Animal Science</td>
</tr>
<tr>
<td>AGR 250  Introduction to Plants/Crop Production</td>
<td>AG 250  Introduction to Plants/Crop Production</td>
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## Art: 2010-2011

<table>
<thead>
<tr>
<th>New Courses</th>
<th>Old Courses</th>
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<tbody>
<tr>
<td>AAD 100  Introduction to Arts Administration</td>
<td>Same</td>
</tr>
<tr>
<td>Dropped</td>
<td>AE 272  Workshop in Art Education</td>
</tr>
<tr>
<td>ART 100  Introduction to Art</td>
<td>Same</td>
</tr>
<tr>
<td>ART 104  Introduction to African Art</td>
<td>AH 104  Introduction to African Art</td>
</tr>
<tr>
<td>ART 105  Ancient through Medieval Art History</td>
<td>AH 105  Ancient through Medieval Art</td>
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<tr>
<td>ART 106  Renaissance Through Modern Art History</td>
<td>AH 106  Renaissance Through Modern Art</td>
</tr>
<tr>
<td>ART 112  2-Dimensional Design</td>
<td>ART 120  2-Dimensional Design</td>
</tr>
<tr>
<td>ART 113  3-Dimensional Design</td>
<td>ART 130  3-Dimensional Design</td>
</tr>
<tr>
<td>ART 201  Ancient Art History</td>
<td>AH 210  Ancient Art History</td>
</tr>
<tr>
<td>ART 202  Medieval Art</td>
<td>AH 211  Medieval Art</td>
</tr>
<tr>
<td>ART 203  Renaissance Art</td>
<td>AH 212  Renaissance Art</td>
</tr>
<tr>
<td>ART 204  Modern Art</td>
<td>AH 213  Modern Art</td>
</tr>
<tr>
<td>ART 208  Introduction to Art Education</td>
<td>AE 270  Introduction to Art Education</td>
</tr>
<tr>
<td>ART 211</td>
<td>Life Drawing</td>
</tr>
<tr>
<td>ART 221</td>
<td>Painting II</td>
</tr>
<tr>
<td>ART 240</td>
<td>Ceramics</td>
</tr>
<tr>
<td>ART 241</td>
<td>Ceramics II</td>
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<tr>
<td>Dropped</td>
<td>AS 102</td>
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<td>AS 103</td>
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<tr>
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<td>AS 215</td>
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<td>ATS 299</td>
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### Biotechnology: 2011-2012

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<tbody>
<tr>
<td>BTN 101 Introduction to Biotechnology</td>
<td>BT 101 Introduction to Biotechnology</td>
</tr>
<tr>
<td>BTN 110 Nucleic Acid Methods</td>
<td>BT 110 Nucleic Acid Methods</td>
</tr>
<tr>
<td>BTN 201 Biotechnology Techniques I</td>
<td>BT 201 Biotechnology Techniques I</td>
</tr>
<tr>
<td>BTN 202 Biotechnology Techniques II</td>
<td>BT 202 Biotechnology Techniques II</td>
</tr>
<tr>
<td>BTN 210 Cell Culture and Function</td>
<td>BT 210 Cell Culture and Function</td>
</tr>
<tr>
<td>BTN 220 Immunological Methods</td>
<td>BT 220 Immunological Methods</td>
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### Business Administration Systems: 2011-2012

<table>
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<tr>
<td>Dropped</td>
<td>B&amp;E 100 Introduction to Business and Economics</td>
</tr>
<tr>
<td>BAS 120 Personal Finance</td>
<td>BA 120 Personal Finance</td>
</tr>
<tr>
<td>Dropped</td>
<td>BA 151 Introduction to Electronic Commerce</td>
</tr>
<tr>
<td>Dropped</td>
<td>BA 152 Introduction to Web Design</td>
</tr>
<tr>
<td>Dropped</td>
<td>BA 153 Intermediate Web Page Design</td>
</tr>
<tr>
<td>BAS 155 Personal Selling</td>
<td>BA 155 Personal Selling</td>
</tr>
<tr>
<td>BAS 160 Introduction to Business</td>
<td>BA 160 Introduction to Business</td>
</tr>
<tr>
<td>BAS 170 Entrepreneurship</td>
<td>BA 170 Entrepreneurship</td>
</tr>
<tr>
<td>Dropped</td>
<td>BA 196 Introduction to Food Management Practicum</td>
</tr>
<tr>
<td>BAS 200 Small Business Mgmt</td>
<td>BA 200 Small Business Management</td>
</tr>
<tr>
<td>BAS 212 Introduction to Finan</td>
<td>BA 212 Introduction to Financial Management</td>
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**Collision Repair Technology : 2011-2012**

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<td>ABR 100 Introduction to Auto Body Repair</td>
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<td>CAD 230 Construction Techniques</td>
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<td>CAD 252 Commercial Detailing</td>
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<td>CAD 291 Special Problems</td>
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<td>CAD 292 Industrial Applications</td>
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### New Courses

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<th>Courses that are equivalent to New Courses</th>
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<td>PERL I</td>
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<td>Visual Basic I</td>
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<td>Java I</td>
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<td>IT 120/CIT 160</td>
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<td>Home and Small Office Networks</td>
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<td>CIT 163</td>
<td>Small-Medium Business or ISP</td>
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<td>CIT 164</td>
<td>Introduction to Routing and Switching</td>
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<td>Network Design and Support</td>
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<td>Database Design Fundamentals</td>
<td>IT 170/ CIT 170/CIS 270</td>
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<td>CIT 171</td>
<td>SQL I</td>
<td>IT 147/CIS 147/CIT 171</td>
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<td>Attacks and Exploits</td>
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<td>CIT 283</td>
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<td>MS Client/Server Config</td>
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<td>Internet Protocols</td>
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<td>CIT 260</td>
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<td>CIT 261</td>
<td>MS Active Directory Services</td>
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<td>Microsoft Server Administration</td>
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<tr>
<td>CIT 266</td>
<td>MS Enterprise Administration</td>
<td>CIT 266</td>
<td>Comparable to NIS 242 or NIS 244 or NIS 245</td>
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<td>SQL II</td>
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<td>CIT 276</td>
<td>3-D Game Development: Language</td>
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<td>Visual Basic III</td>
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<td>Computer Forensics</td>
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<td>MS Windows OS Security</td>
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<td>CIT 286</td>
<td>UNIX/Linux OS Security</td>
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<td>CIT 287</td>
<td>Cisco OS Security</td>
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<td>CIT 299</td>
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**Computerized Manufacturing and Machining: 2012-2013**

*(Previously listed under Machine Tool Technology)*

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<td>CMM 132 CAD/CAM/CNC</td>
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<td>MTT 138 Intro to Programming &amp; CNC Machines</td>
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<td>CMM 150 Shop Theory</td>
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<td>CMM 151 Machinery’s Handbook and Metallurgy</td>
<td>MTT 151 Machinery’s Handbook and Metallurgy</td>
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<td>CMM 152 Jigs, Fixtures and Gaging</td>
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<td>CMM 153 Mold Theory</td>
<td>MTT 153 Mold Theory</td>
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<td>CMM 154 Die Theory</td>
<td>MTT 154 Die Theory</td>
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<td>CMM 160 Basic Bench and Machine Processes</td>
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<tr>
<td>CMM 168 Special Topics in Computerized Manufacturing &amp; Machining</td>
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<th>Special Topics in Machine Tool Technology</th>
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<td>Industrial Machining I</td>
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<td>CMM 218</td>
<td>Advanced Machining Techniques for Manufacturing</td>
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**Cosmetology: 2011-2012**

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**Criminal Justice: 2011-2012**

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<td>CRJ 102</td>
<td>INTRODUCTION TO CORRECTIONS</td>
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<td>CRJ 218</td>
<td>Police Supervision</td>
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<td>CRJ 107</td>
<td>Introduction to Firearms</td>
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<td>CRJ 110</td>
<td>Principles of Asset Protection</td>
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<td>CRJ 201</td>
<td>Introduction to Criminalistics</td>
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<td>CRJ 202</td>
<td>Issues and Ethics in Criminal Justice</td>
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<td>CRJ 203</td>
<td>Community Corrections: Probation and Parole</td>
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<td>CRJ 204</td>
<td>Criminal Investigations</td>
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<td>Delinquency and the Juvenile Justice System</td>
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<td>CRJ 210</td>
<td>Physical Security Technology &amp; Systems</td>
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<td>CRJ 211</td>
<td>Liability and Legal Issues</td>
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<td>CRJ 215</td>
<td>Introduction to Law Enforcement</td>
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<td>CRJ 216</td>
<td>Criminal Law</td>
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<td>Criminal Procedures</td>
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<td>Prison &amp; Jail Administration</td>
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<td>Introduction to Corporate &amp; Industrial Security</td>
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<td>Introduction to Business and Industrial Fraud</td>
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<td>CRJ 279</td>
<td>Terrorism and Political Violence</td>
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Dental Assisting/Dental Hygiene: 2011-2012

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Dental Hygiene (BCTC): 2011-2012

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<td>DMS 111 Abdominal Synography</td>
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<td>DMS 117 Vascular Sonography I</td>
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<td>DMS 118 Vascular Sonography II</td>
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**Digital Game and Simulation Design: 2012-2013**

*(Previously listed under Digital Game Design)*

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<td>DGD 232  3D Character Development</td>
<td>IT 232 3-D Digital Game Character Development</td>
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<td>DGD 234  3D Animation</td>
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**Education: 2011-2012**

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<td>EDU 120  Child &amp; Adolescent Development</td>
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<td>EDU 130  Introduction to Special Education</td>
<td>ED 103 Introduction to Special Education</td>
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<td>EDU 140  Introduction to Behavioral Management</td>
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<td>EDU 150  Practical Experiences for the Paraeducator</td>
<td>ED 105 Practical Experiences for the Paraeducator</td>
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<td>EDU 201  Introduction to American Education</td>
<td>ED 201 Introduction to American Education</td>
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<td>EDU 204  Technology in the Classroom</td>
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<td>EDU 240  Elementary &amp; Middle School Literature</td>
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<td>EDU 270  Elementary School Literature</td>
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<td>EDU 280  Education Externship/Co-op</td>
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## Education: 2013-2014

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### Emergency Medical Services – Paramedic: 2013-2014

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<td>EMS 200</td>
<td>Introduction to Paramedicine - NEW</td>
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<td>EMS 210</td>
<td>Emergency Pharmacology - NEW</td>
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<td>EMS 211</td>
<td>Fundamentals Lab - NEW</td>
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<td>Clinical Experience I - NEW</td>
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<td>Cardiovascular Emergencies - NEW</td>
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<td>EMS 221</td>
<td>Cardiac and Trauma Lab - NEW</td>
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<td>Clinical Experience II - NEW</td>
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<td>Traumatic Emergencies - NEW</td>
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<td>Medical Lab - NEW</td>
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<td>Clinical Experience III - NEW</td>
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<td>Special Populations - NEW</td>
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<td>EMS 270</td>
<td>EMS Operations - NEW</td>
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<td>EMS 275</td>
<td>Seminar in Advanced Life Support (ALS) - NEW</td>
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<td>EMS 285</td>
<td>Field Internship &amp; Summation - NEW</td>
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<td>ESP 110</td>
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<td>Electrical Concepts</td>
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<td>Electrical Machinery and Controls</td>
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<td>ESP 211</td>
<td>Power Plant Operations I</td>
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<td>Power Plant Operations II</td>
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<td>ES 130 Electrical Concepts</td>
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<td>ES 132 Electrical Machinery and Controls</td>
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<td>ES 211 Power Plant Operations I: Introduction to Power Plant Operations</td>
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<td>ES 212 Power Plant Operations II: Boilers/Fuel/Air Combustion/Emissions</td>
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<td>ES 213 Power Plant Operations III: Water/Steam/Turbines/Generators</td>
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## Engineering & Electronics Technology (Previously MIT: Engineering Technology): 2011-2012

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<td>ELT 106</td>
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<td>Computer Applications for Technicians</td>
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**Engineering and Electronics Technology: 2012-2013**

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**Foreign Language: 2010-2011**

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### General College Studies: 2010-2011

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### Global Studies: 2011-2012

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### Health Physics: 2011-2012

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<td>Ethical and Legal Issues in Homeland Security</td>
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### Human Services: 2011-2012

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<td>Values of Human Services in a Contemporary Society</td>
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<td>HMS 103</td>
<td>Theories and Techniques in Human Services</td>
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<td>Group Dynamics for Human Services</td>
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<td>HMS 210</td>
<td>Drugs, Society &amp; Human Behavior</td>
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<td>Introductions to Addictions</td>
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<td>HMS 212</td>
<td>Crisis Intervention</td>
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<td>HMS 220</td>
<td>Cultural Diversity in Human Services</td>
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<td>HMS 235</td>
<td>Teaching Persons with Mental Retardation</td>
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<td>HMS 250</td>
<td>Clinical Practice in Human Services</td>
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<td>HMS 265</td>
<td>Working with Disabilities in Human Services</td>
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<td>Special Topics in Human Services: (Topic)</td>
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<td>Introduction to Social Services</td>
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### Industrial Safety: 2012-2013

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### Industrial Technology: 2012-2013

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<td>ITE 250</td>
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### Logistics and Operations Management: 2013-2014

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### Masonry: 2011-2012

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<tr>
<td>MSY 115</td>
<td>MASE 115 Intermediate Masonry</td>
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<tr>
<td>MSY 198</td>
<td>MASE 198 Practicum I</td>
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<td>MSY 199</td>
<td>MASE 199 Cooperative Education I</td>
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<td>MASE 201 Special Problems II</td>
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<td>MSY 205</td>
<td>MASE 205 Advanced Masonry</td>
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<td>MSY 215</td>
<td>MASE 215 Masonry Lab</td>
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<td>MSY 225</td>
<td>MASE 225 Brick Construction</td>
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<td>MSY 235</td>
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<td>MSY 245</td>
<td>MASE 245 Anchors and Reinforcement</td>
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<td>MSY 251</td>
<td>MASE 251 Concrete Finishing</td>
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<td>MSY 253</td>
<td>MASE 253 Masonry Floors and Steps</td>
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<tr>
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<td>MASE 255 Glass Blocks and Tile</td>
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<td>MSY 257</td>
<td>MASE 257 Stone</td>
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<td>MSY 275</td>
<td>MASE 275 Fireplace Construction</td>
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<td>MSY 291</td>
<td>MASE 291 Special Problems III</td>
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# Math: 2012-2013

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# Medical Information Technology: 2012-2013

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<tr>
<td>MIT 104 Medical Insurance</td>
<td>OST 104 Introduction to Medical Insurance</td>
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<tr>
<td>MIT 106 Introduction to Medical Transcription</td>
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<td>MIT 204 Medical Coding</td>
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<td>MIT 205 Advanced Medical Coding</td>
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<td>MIT 206 Medical Transcription</td>
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<td>MIT 208 Inpatient Coding</td>
<td>OST 208 Introduction to Hospital Coding</td>
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<tr>
<td>MIT 212 Medications</td>
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<td>MIT 217 Medical Office Procedures</td>
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<td>MIT 227 Medical Office Software</td>
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<td>MIT 228 Electronic Medical Records</td>
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<tr>
<td>MIT 230 Medical Information Management</td>
<td>OST 230 Medical Records and Data Management</td>
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# Medical Laboratory Technology: 2013-2014

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<td>MLT 115 Serology</td>
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<td>MLT 119 Applied Laboratory</td>
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<td>MLT 209 Clinical Diagnostic Microbiology II</td>
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<td>MLT 217</td>
<td>Fundamentals of Hematology</td>
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<td>MLT 218</td>
<td>Clinical Hematology</td>
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<td>MLT 225</td>
<td>Immunohematology I</td>
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<td>MLT 233</td>
<td>Clinical Chemistry I</td>
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<td>Advanced Clinical Chemistry</td>
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**Mining Technology: 2011-2012**

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<td>MNG 123 Mining Electricity I</td>
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<td>MNG 125 Mining Electricity I Lab</td>
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<td>MNG 150 Mining Laws</td>
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<td>ET 154 Spoil Management</td>
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<tr>
<td>Dropped</td>
<td>ET 155 Elements of Underground and Surface Mining</td>
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<td>ET 156 Elements of Underground and Surface Mining Lab I</td>
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<td>ET 157 Elements of Underground and Surface Mining Lab II</td>
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<td>MNG 190 Mine Emergency Technician</td>
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<td>ET 271 Mining Mechanics and Hydraulics</td>
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<td>MNG 275 Mine Management</td>
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## Music: 2010-2011

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<td>MUS 120, MUIC 171, MUIC 174</td>
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<td>MUS 150, MUIC 171, MUIC 174</td>
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<td>MUS 151, Class Instruction in Piano II</td>
<td>MUS 151, MUIC 171, MUIC 174</td>
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<td>MUS 152, Class Instruction in Piano III</td>
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<td>MUS 155, Voice Class for Non-Music Majors</td>
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<td>MUS 174, Theory for Non Music Majors</td>
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<td>MUS 192, University Chorus</td>
<td>MUS 192, MUIC 171, MUIC 174</td>
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<td>MUS 206, American Music History</td>
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<td>MUS 222, History and Sociology of Rock Music</td>
<td>MUS 222, MUIC 171, MUIC 174</td>
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<td>MUS 260, Teaching Music for the Elementary Grades I</td>
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<td>MUS 261, Teaching Music for the Elementary Grades II</td>
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## Nuclear Medicine & Molecular Imaging: 2011-2012

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<tr>
<td>NMI 142, Radiation Biology and Protection</td>
<td>NMMI 142, Clinical Procedures I</td>
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<td>NMI 150, Clinic I</td>
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<td>NMI 160, Clinical Procedures II</td>
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<td>NMI 161, Physics and Instrumentation II</td>
<td>NMMI 161, Clinical Procedures II</td>
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### Nursing (BCTC): 2011-2012

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<td>NRN 235 Nursing III</td>
<td>NR 235 Nursing III</td>
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<td>NRN 245 Nursing IV</td>
<td>NR 245 Nursing IV</td>
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<tr>
<td>NRN 255 Nursing V</td>
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### Philosophy: 2010-2011

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<tr>
<td>PHI 110 Medical Ethics</td>
<td>PHL 110 Bioethics: Moral Issues in Health Care</td>
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<td>PHI 130 Ethics</td>
<td>PHI 130 Introduction to Philosophy: Morality and Society</td>
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<tr>
<td>PHI 150 Business Ethics</td>
<td>PHL 120 Business Ethics</td>
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<td>PHI 260 History of Philosophy I: From Greek Beginnings to the Middle Ages</td>
<td>PHI 260 History of Philosophy I: From Greek Beginnings to the Middle Ages</td>
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<td>PHI 270 History of Philosophy II: From the Renaissance to the Present Era</td>
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### Physics: 2010-2011

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<td>PHY 151 Introductory Physics I</td>
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<td>PHY 152 Introductory Physics II</td>
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<td>PHY 160 Physics and Astronomy for Elementary Teachers</td>
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<td>PHY 161 Introductory Physics I Laboratory</td>
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### Appendix

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**Political Science: 2010-2011**

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<td>POL 212 Culture and Politics in Developing Nations</td>
<td>PS 212 Culture and Politics in the Third World</td>
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<td>POL 235 World Politics</td>
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<td>POL 255 State Government</td>
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<td>POL 280 Issues in Public Policy</td>
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<td>POL 299 Special Topics in Political Science</td>
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**Professional Studio Artist: 2011-2012**

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<td>PSJ 116 Ancient Techniques</td>
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<td>PSJ 117 Metal Casting/Finishing Techniques</td>
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<td>PSJ 210 Jewelry/Metals III</td>
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<td>PSJ 211 Hollowware and Metal Forming</td>
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<td>PSJ 212 Metallurgy of Precious Metals</td>
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*NOTE: POL 271 removed from general education status.*
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## Professional Studio Artist: 2013-2014

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## Psychology: 2010-2011

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<td>PSY 185 Human Potential</td>
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<td>PSY 230 Psychosocial Aspects of Death and Dying</td>
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## Psychology: 2012-2013

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## Psychology: 2013-2014

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<td>IMG 106  Patient Care in Radiography</td>
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<td>IMG 108  Radiographic Procedures I</td>
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<td>IMG 109  Clinical Practice I</td>
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<td>IMG 110  Radiography II</td>
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<td>IMG 119  Clinical Practice II</td>
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<td>IMG 224  Radiation Protection and Biology</td>
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<td>IMG 255  Magnetic Resonance Physics and Instrumentation</td>
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<td>IMG 260  Computed Tomography Imaging Procedures</td>
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### Reading: 2012-2013

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### Real Estate: 2011-2012

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<td>REA 121 Appraising</td>
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<td>REA 122 Construction and Blueprints</td>
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<tr>
<td>REA 200 Real Estate Principles II</td>
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<td>REA 201 Property Management</td>
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<td>REA 202 Real Estate Investments I</td>
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<td>REA 205 Farm Brokerage</td>
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<td>REA 212 Real Estate Investments II</td>
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<td>REA 220 Real Estate Brokerage Management</td>
<td>RE 220 Real Estate Brokerage Management</td>
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<td>REA 222 Uniform Standards of Professional Appraisal</td>
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<td>REL 102 Philosophy of Religion</td>
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<td>REL 120 Introduction to the Old Testament</td>
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<td>REL 130* Introduction to Comparative Religion</td>
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*Cross-listed with ANT 130
### Theatre: 2010-2011

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<td>TA 126</td>
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<td>Acting I: Fundamentals of Acting</td>
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<tr>
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<td>TA 127</td>
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<td>Acting Techniques</td>
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<td>Introduction to Dramatic Literature</td>
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### Transitional Mathematics: 2012-2013

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### Women’s and Gender Studies: 2010-2011

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Appendix F

Gainful Employment Disclosures

These disclosures provide important information about the educational debt, earnings, and completion rates of students who attend the program. Below you will find links to the GE disclosures for each college.

Ashland Community and Technical College:

Big Sandy Community and Technical College:

Bluegrass Community and Technical College:
http://www.bluegrass.kctcs.edu/Academics/Gainful_Employment_Disclosure_Information.aspx

Elizabethtown Community and Technical College:

Gateway Community and Technical College:

Hazard Community and Technical College:

Henderson Community College:

Hopkinsville Community College:

Jefferson Community and Technical College:

Madisonville Community College:

Maysville Community and Technical College:

Owensboro Community and Technical College:

Somerset Community College:

Southcentral Kentucky Community and Technical College:

Southeast Community and Technical College:

West Kentucky Community and Technical College:
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