Medical Assisting
Marine Technology
Interactive Design
Integrated Engineering Technology
Instructional Design and Learning Technology
Industrial Chemical Technology
Health Education
Geographic Information Systems Technology
General Occupational/Technical Studies
Financial and Customer Services
Equine Studies
Environmental Technology
Environmental Science Technology
Equine Studies
Educational Leadership
Eagle Scout

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.
Welcome to the Kentucky Community and Technical College System (KCTCS). Higher Education Begins Here! Our statewide system of 16 colleges, and more than 70 campuses, is here to provide you with a quality education that is both accessible and affordable.

If you are a new student at a KCTCS college or newly enrolled in a particular academic program, the 2013/14 catalog is your guide to the many academic programs and student services we offer. It is an important tool to help you explore the educational opportunities available at each of the 16 KCTCS colleges.

Also, I invite you to visit our online version of the catalog located on the student section of the KCTCS website at kctcs.edu. This convenient, user-friendly tool allows you to easily search our more than 700 program options.

KCTCS prides itself in providing students with an education that is not only affordable and convenient, but is also relevant to the workplace. Teaching is our top priority. Our faculty focus on you and your educational goals. Our instructors bring real world experience into the classroom to assist you in meeting the challenges ahead.

Thank you so much for your interest in KCTCS. On behalf of the entire System, I wish you the best of luck on your educational journey. If you have further questions, contact the KCTCS college nearest you or call 1-877-KCTCS-4U (1-877-528-2748).

Sincerely,

Michael B. McCall, Ed.D.
President, 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. In just 15 years, it has become the largest provider of higher education and workforce training in the state.

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 every citizen in the state.

KCTCS colleges confer three types of credentials — certificates, diplomas and associate degrees including: associate in arts, associate in science and associate in applied science — upon students who complete credit programs. 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 health care, manufacturing, energy, banking and financial services, construction and trades 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 more than 6,200 businesses and training nearly 61,930 employees annually.

Last year alone, KCTCS trained and educated:

- More than 147,900 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, making the admission process easy to navigate. 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).

To learn more about KCTCS, visit kctcs.edu.

Mission Statement

Kentucky Community and Technical College System

In everything we do, our mission is to improve the quality of life and employability of the citizens of the Commonwealth by serving 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
September
2 Labor Day
November
28 Thanksgiving Day
29 Day After Thanksgiving
December
23 Institutional Closing
24 Institutional Closing
25 Institutional Closing
26 Institutional Closing
27 Institutional Closing
30 Institutional Closing
31 Institutional Closing
January
1 Institutional Closing
2 Institutional Closing
3 Institutional Closing
20 Martin Luther King Day
February
17 President’s Day
April
18 Good Friday (1/2 Day)
May
26 Memorial Day
KCTCS Leadership*

*This page reflects KCTCS leadership as of July 1, 2013

KCTCS Board of Regents
Mr. Porter G. Peeples, Sr., Chair
Ms. Marcia L. Roth, Vice Chair
Ms. Betsy E. Flynn, Secretary
Mr. Richard A. Bean
Mr. Elijah Buell, Jr.
Ms. Ginger M. Carroll
Mr. Robert G. Cooper
Ms. Amber Lee Douglas
Mr. John P. Dove
Dr. Michael Ginsberg
Dr. Gail R. Henson
Mr. M. Patrick Holland
Mr. Barry K. Martin
Ms. Doris C. Thomas

Foundation Board of Directors
F. Lee Hess, Chair
Rick Music, Secretary
Mark A Bailey, Treasurer
Kathy Love, Immediate Past Chair
Barry S. Bishop
Donna Covington
Greg Higdon
Jim LeMaster
Gregory G. Pauley
Linda L. Rumpke
Wes Sights
Dr. C. Nelson Grote, Emeritus Member
Dr. Thelma White
P.G. Peeples, Sr., Ex-Officio Member
Dr. Michael B. McCall, Ex-Officio Member
Timothy R. Burcham, CFRE, Ex-Officio Member

President
Dr. Michael B. McCall

President’s Cabinet
Dr. Jay K. Box, Chancellor
Mr. Timothy R. Burcham, CFRE, Vice President
Mr. Paul B. Czarapata, Vice President
Ms. Beth R. Hilliard, Senior Executive Assistant to the President
Mr. J. Kenneth Walker, Vice President

College Leadership

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

Big Sandy Community and Technical College
Dr. George D. Edwards
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. G. Edward Hughes
President/CEO

Hazard Community and Technical College
Dr. Stephen G. Greiner
President/CEO

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

Hopkinsville Community College
Dr. Patrick R. Lake
Interim President/CEO

Jefferson Community and Technical College
Dr. Anthony L. Newberry
President/CEO

Madisonville Community College
Dr. Judith L. Rhoads
President/CEO

Maysville Community and Technical College
Dr. Ed Story
President/CEO

Owensboro Community and Technical College
Dr. James S. Klauber
President/CEO

Somerset Community College
Dr. Jo Marshall
President/CEO

Southcentral Kentucky Community and Technical College
Dr. Phillip W. Neal (effective July 1, 2013)
President/CEO

Southeast Kentucky Community and Technical College
Dr. F. Lynn Moore (effective July 8, 2013)
President/CEO

West Kentucky Community and Technical College
Dr. Barbara M. Veazey
President/CEO
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 serving Northeast Kentucky with a tradition of accessible, affordable, and quality education including general education that supports a variety of excellent associate degree, diploma, and certificate programs and prepares students for transfer to baccalaureate programs. The College has a strong commitment to meet the academic, workforce training, and lifelong learning needs of its community. 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 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
- Air Conditioning Technology
- Appalachian Studies
- Applied Process Technologies
- Automotive Technology
- Business Studies:
  - Business Administration Systems
  - Medical Information Technology
  - Office Systems Technology
- Computer Aided Drafting and Design
- Computer and Information Technologies
- Computerized Manufacturing and Machining
- Construction Technology
- Cosmetology
- Criminal Justice
- Culinary Arts
- Diagnostic Medical Sonography
- Diesel Technology
- Emergency Medical Services – Paramedic
- Emergency Medical Technician
- Fire/Rescue Science Technology
- General Occupational/Technical Studies
- Health Science Technology
- Horticulture

Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  - Electrical Technology
  - Industrial Maintenance Technology
Nursing (A)
Pharmacy Technology (C, D)
Practical Nursing (C, D)
Radiography (A)
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) 326-2000
Advising Center (606) 326-2040
Adult Education and Literacy (606) 326-2457
Business Office 1-855-2GO-ACTC (1-855-246-2282)
Center for Community, Workforce and Economic Development (606) 326-2232
Community and Technical College Foundation (606) 326-2077
Disability Services (606) 326-2051
Financial Aid 1-855-2GO-ACTC (1-855-246-2282)
Human Resources (606) 326-2044
Library (606) 326-2169
Lifelong Learning (606) 326-2072
Public Relations (606) 326-2400
Records (606) 326-2035
Veterans Affairs (606) 326-2424
Website (webmaster) (606) 326-2107

Administration

President – Dr. Kay Adkins (606) 326-2043
Dean of Academic Affairs – Dr. Janie Kitchen (606) 326-2162
Dean of Business Affairs – Karen Blevins (606) 326-2063
Dean of Resource Development and External Relations, Workforce and Economic Development – Dr. Larry Ferguson (606) 326-2232
Dean of Institutional Planning, Research and Effectiveness – Steve Flouhouse (606) 326-2055
Dean of Marketing and Community Relations – John McGlone (606) 326-2400
Dean of Student Affairs – Willie McCullough (606) 326-2068
Associate Dean of Academic Affairs – Dr. Keith Brammell (606) 326-2426
Associate Dean of Advising and Student Retention – Cris McDavid (606) 326-2003
Associate Dean of Information Technology – Farnoosh Rafiee (606) 326-2069
Registrator – Kevin Coots (606) 326-2064
Director of Financial Aid – Robin Lewis (855) 246-2282
Director of Cultural Diversity – Al Baker (606) 326-2422
Division of Business Education, Social Sciences and Technology – Molly Webb (606) 326-2231
Division of Health Sciences – Michelle Napier (606) 326-2011
Division of Humanities – Dr. Carol Greene (606) 326-2142
Division of Manufacturing, Transportation and Industrial Technologies – Rick Burnett (606) 326-2438
Division of Math and Natural Sciences – Nicole Griffith-Green (606) 326-2236

Faculty

Alley, Alan C, Associate 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
Beever, Nick Paul, Assistant Professor, AA, Huntington College of Business, 1978
Bird, Pamela, Professor, MA, Morehead State University, 1978
Blair, Kathy, Instructor, MSN, University of Phoenix, 2012
Bogg, Christopher J, Associate Professor, AAS, Institute of Electronics Technology, 1992
Borders III, Andrew J, Associate Professor, MS, Southern Baptist Theological Seminary, 1979
Bowman, Curtis D, Associate 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, Professor, BS, Morehead State University, 1979
Brammell, Keith, Professor, DMD, University of Kentucky, 1985
Brown, Sara A, Associate/Librarian II, MSLS, University of Kentucky, 2003
Brown, Shawn Micheal, Assistant Professor, MA, Morehead State University, 2007
Bryant, Sheree Nicole, Associate Professor, AS, Ohio University Southern Campus, 2003
Burnett, Richard D, Professor, AS, Ashland Community and Technical College, 2000
Burton, Frederick J, Associate Professor, AS, Morehead State University, 2001
Cavins, Jacqueline L, Associate Professor, AAS, Ashland Community and Technical College, 1986
Chaffins, Robert A, Professor, BS, Morehead State University, 2000
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
Coots, Philip K, Professor, MA, Southern Illinois University, 1988
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
Dufore, Derek, Instructor, DC, National University of Life Sciences, 2010
Dunn, Barbara E, Associate Professor, AAS, Ashland Community and Technical College, 2004
Edwards, Kathryn Hare Tucci, Professor, MA, Marshall University, 1991
Figgins, Edward E, Associate Professor, BA, Morehead State University, 1988
Flath, Mary C, Professor, PhD, Medical University of South Carolina, 1991
Flouhouse, Steven D, Professor, MS, Marshall University, 1991
Fosson, Woodrow, Instructor, Associate of Applied Technology, ACTC, 2001
Fosterwelsh, Wendy, Associate Professor, MFA, Georgia Southern University, 2004
Frawley, Donald L, Associate Professor, JD, University of Kentucky, 1974
Frye, Betty E, Professor/Librarian I, MLS, University of South Carolina, 1989
Gehringer, Rebecca N, Professor, MA, Morehead State University, 1986
George, Karen Marie, Professor, MA, Marshall University, 1979
Greene, Carol M, Professor, PhD, Indiana University of Pennsylvania, 2005
Griffith-Green, Nicole, Associate Professor, MS, Morehead State University, 1998
Hall, Raliff J, Professor, MS, Morehead State University, 1993
Henderson, Rachel, Instructor, MSN, Chamberlain College of Nursing, 2012
Henry, Harold Edmond, Associate Professor, AAS, Ashland Technical College, 2002
Hoover, Timothy J, Professor, MA, Eastern Illinois University, 1981
Howard, Warren H, Associate Professor, MA, Morehead State University, 2003
Howerton, Deena, Instructor, BSN, Bellarmine University, 2002
James, Jesse, Instructor, AAS, Ashland CTC, 2010
Joy, Jonathan, Instructor, MA, Marshall University, 2004
Justice, Debra, Associate Professor, MA, Marshall University, 1997
Kitchen, Janie R, Professor, DNP, Case Western Reserve University, 2011
Klinepeter, Pamela, Associate/Librarian II, MLS, University of Kentucky, 2005
Koll, Travis, Assistant professor, Masters, California State University, Fresno, 2007
Kumar, Ramamurthy Chandra, Professor, MS, Florida Institute of Technology, 1986
Lanthorn, Charles A, Associate Professor, Certification, Ashland Technical College, 1981
Limeris, Lois E, Associate Professor, AAS, Ashland Technical College, 2002
Lonangthath, Matthew, Instructor, AAS, Ashland Community and Technical College, 2013
Mahan, Daniel, Associate Professor, MA, Samford University, 1984
Mains, Heather, Instructor, MSN, Walden University, 2010
Martin, Frances, Assistant Professor, AME, Morehead State University, 1994
McCarty, Shannon, Assistant 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, Assistant Professor, BSN, Marshall University, 1988
McGinnis, Vickie, Instructor, MA, University of Kentucky, 1994
McGone, John K, Associate Professor, MS, Morehead State University, 1994
Mengista, Aschalew, Associate Professor, PhD, University of Wales College of Medicine, 2002
Merritt, Richard, Instructor, MA, Marshall University, 2011
Mohebian, Hossein, Professor, MA, Marshall University, 1983
Mothers, Kellie, Instructor, Patrick Henry VS, 2011
Napier, Michelle H, Professor, MSN, Bellarmine College, 1990
Napora, Joseph S, Professor, MA, Miami University, 1976
Onion, Matthew W, Professor/Librarian I, MLS, Indiana University, 1972
O’Pell, Donald Ray, Professor, MS, Marshall University, 1984
Pancake, Danny, Associate Professor, Certification, Manpower Development and Training Program, 1975
Poteet, Amy J, Professor, MA, Morehead State University, 1987
Rafic, Farnoosh, Professor, MA, Marshall University, 1982
Ratliff, Terri Lynn, Assistant Professor, BA, Marshall University, 1993
Riggs, Mark, Assistant Professor, MS, Mississippi State University, 2000
Roark, Mary L, Assistant Professor, MS Nursing, Bellarmine University, 2007
Robinson, Natalie, Associate Professor, MSN, Bellarmine University, 2007
Schmidt, James C, Professor, PhD, Cincinnati, 1976
Shelton, Cynthia, Professor, AME, Marshall University, 1992
Shortridge, Mary E, Associate Professor, MA, Morehead State University, 1982
Skidmore, Ashley, Assistant Professor, MA, University of Kentucky, 2006
Swanson, Uma G, Professor, MA Auburn University, 1969
Sweatman, Mark R, Professor, MA, University of Kentucky, 1990
Tackett, Donald R, Associate Professor, Diploma, Ashland Technical College, 1980
Thompson, Alice C, Professor, MA, Marshall University, 1988
Thornton, Jack D, Associate Professor, AAS, Columbus State University, 1986
Tucker, Ernest M, Professor, MA, University of Louisville, 1962
Tussey, Laura, Associate Professor, MA, Marshall University, 2000
Vanover, Wayne D, Associate Professor, BBA, Morehead State University, 1980
Waugh, Della Beth, Instructor, BA, Marshall University, 1994
Webb, Molly J, Associate Professor, MBA, Bellarmine College, 1982
Big Sandy Community and Technical College

Mission Statement/Status of Accreditation
Big Sandy Community and Technical College, a member of the Kentucky Community and Technical College System, is a public, comprehensive educational institution awarding certificates, diplomas, and associate degrees. As a progressive, learning-centered institution, the College offers accessible and affordable educational, cultural, and social opportunities. Utilizing diverse methods of instructional delivery and associated services, the College provides quality learning experiences for those preparing for entry into the workforce, transferring to a baccalaureate institution, and seeking to enhance their knowledge and skills. Big Sandy Community and Technical College also delivers customized training and services responsive to the workforce needs of citizens, businesses, and industries.

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
Occidental/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)
Applied Engineering Technology (C)
Automotive Technology (C, A)
Business Studies:
- Business Administration Systems (C, D, A)
- Medical Information Technology (C, D, A)
- Office Systems Technology (C, D)
Civil Engineering Technology (A)
Collision Repair Technology (C, D)
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 (A)
Diesel Technology (C, D)
Emergency Medical Technician (C)
Energy Technologies (C)
Engineering and Electronics Technology (C, D)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Horticulture (C, D)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C)
Manufacturing Engineering Technology (C)
Manufacturing Industrial Technology: Electrical Technology (C, D)
Manufacturing Industrial Technology: Industrial Maintenance Technology (C, D)
Masonry (C, D)
Mining Technology (C, A)
Motorcycle Technology (C, A)
Nursing (A)
Practical Nursing (C, D)
Plumbing (C)
Respiratory Care (C, A)
Surgical Technology (C, 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
1Bert T. 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) 789-5690
bigsandy.kctcs.edu

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

Academic Affairs (Program Information) (606)886-7342
Admissions & Records Office (606) 886-3863 Option 2
Business Office 1-855-GO-BSCTC (1-855-462-7282)
Center for Student Engagement (606) 889-4840
Disability Services (606)886-7359
Diversity (606) 886-7374
Financial Aid 1-855-GO-BSCTC (1-855-462-7282)
Library (606) 886-3863 Ext. 64834
Marketing and Communications (606) 218-1207
President’s Office (606) 886-7332
Provost’s Office (606) 886-7351
Security (606) 788-2817
Student Services (606) 886-7351
Website (606) 886-7395
Workforce Solutions (606) 788-2946

Administration

President Dr. George D. Edwards
Provost Dr. Nancy B. Johnson
Vice President of Institutional Services Bobby McCool
Interim Chief Business Affairs Officer-Dean of Finance Michelle Meek
Dean of Learning Initiatives Vacant
Dean of Student Services Vacant
Associate Dean of Academic Affairs-Allied Health Programs Myra Elliott (606) 889-4715
Associate Dean of Academic Affairs-General Education Dr. Patsy Jackson
Interim Associate Dean of Academic Affairs – Learning Support Services Dr. Chris Daniel (606) 886-7354
Associate Dean of Academic Affairs-Technical Programs Keithen McKenzie
Associate Dean of Student Services – Admissions and Records Jimmy Wright (606) 886-7347
Associate Dean of Student Services-Enrollment Management Billie Jean Cole (606) 889-4808
Associate Dean of Student Services – Student Support Services Susan Chafin (606) 889-4840
Director of Advancement Kelli Hall (606) 886-7382
Director of Cultural Diversity Tina Terry (606) 886-7374
Director of Distance Learning Paula Thompson (606) 218-1253
Director of East Kentucky Science Center and Planetarium Steven L J Russo (606) 889-4809
Director of Facilities, Safety and Auxiliary Services John Herald (606) 886-7335
Director of Financial Aid Denise Trusty 1-855-GO-BSCTC (1-855-462-7282)
Director of Human Resources Vacant (606) 889-4724
Director of Institutional Effectiveness Denese Atkinson (606) 889-4777
Director of Information Technology John Dove (606) 886-7360
Director of Grants Mazola Salmons (606) 889-4729

Director of Library Services Melissa Forsyth (606) 889-4749
Director of Technology Innovations Dr. Richard Roe (606) 218-1243
Director of Transformation Initiatives Melinda Justice (606) 889-4826
Director of Regional Diversity (ECHO) Lisa K. Stumbo (606) 889-4792
Interim Director of Workforce Solutions Harold Burton (606) 788-2946
Facilities Management Specialist Emma Jeannie Howard McCoy (606) 889-4710
Office of Marketing and Communications Randall Roberts (606) 218-1207

Faculty

Adam, Kelly J, Professor, MS, Southern Connecticut University, 1993
Adams, Gilbert K, Associate Professor, AA, Morehead State University, 1992
Akahlghi, Mohammad R, Professor, PhD, University of Oregon, 1978
Allen, Collista, Assistant Professor, BSN, University of Phoenix, 2009
Azeem, Arif, Professor, MS, Western Michigan University, 1982
Baldridge, Harold, Instructor, BS, University of Kentucky, December 1968
Ball, Tammy, Professor, MA, University of Louisville, 1996
Barlow, Donald L, Associate Professor, PhD, Ball State University, 1987
Bays, Leslie M, Instructor, MA, Morehead State University, 2010
Bell, Daniel E, Professor, MA, Northern Illinois University, 1986
Bennin, Hope E, Professor, MA, University of Wisconsin, 1987
Burchett, Nicole, Assistant Professor, AAS, Bluegrass Community & Technical College, 2003
Campbell, Eric, Assistant Professor, AAS, Big Sandy Community & Technical College, 2007
Cantrell, Etta L, Professor, MHE, Morehead State University, 1985
Carroll, Charlene, Professor, MS, 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 J, Professor, BS, Morehead State University, 2013
Conn, Nancy, Associate Professor, BSN, University of Kentucky, 1976
Dales, Heather, Instructor, BSN, Radford University, 2001
Daniel, Christopher A, Associate Professor, EdD, Liberty University, 2013
Dempsey, Jeremy, Assistant Professor, MA, Marshall University, 2005
DeRossett, Kimberly R, Professor, BS, Eastern Kentucky University, 1984
Dixon, Eric, Associate Professor, DDM, University of Kentucky, 1993
Durham, Roberta, Instructor, BSN, Morehead State University, 2009
Elliott, Myra T, Professor, MS, University of Kentucky, 1993
Fields, Carmen, Assistant Professor, AAS, Somerset Community College – Laurel Campus, 2002
Fields, Michelle, Associate Professor, MA, Marshall University, 1995
Fitzpatrick, John J, Instructor, AAS, Big Sandy Community & Technical College, 2011
Forsyth, Melissa M, Professor / Librarian I, MS, University of Kentucky, 1993
Fossitt, Leslie, Assistant Professor, MA, Georgetown College, 2007
Froman, Michael K, Associate Professor, BS, Eastern Kentucky University, 1979
Garrett, Clara N, Professor, MS, Eastern Kentucky University, 1979
Gillis, Bill R, Professor, PhD, Florida State University, 1990
Goodman, Gina, Associate Professor, AS, Prestonsburg Community College, 2004
Gogorth, Sandra, Associate Professor, BSN, Morehead State University, 2010
Hackeray, Randal Clinton, Assistant Professor, MA, Morehead State University, 2007
Hall, Cindy, Assistant Professor, MA, Morehead State University, December 2008
Hall, Joshua, Instructor, 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, Assistant Professor, AAS, Prestonsburg Community College, 1993
Herald, Jane, Associate Professor, AM, Morehead State University, 1974
Herman, Douglas E, Professor, PhD, Ohio University, 1980
Heywood, Timothy G, Professor, MS, University of Idaho, 1981
Hicks, Jeffrey T, Associate Professor, MA, Morehead State University, 2000
Hobbrock, Kenneth Wayne, Instructor, AAS, Big Sandy Community & Technical College, 2010

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Bluegrass Community and Technical College

Mission Statement/Status of Accreditation
Bluegrass Community and Technical College (BCTC) is transforming 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 sustains strong partnerships to provide a skilled workforce, prepare students to transfer for baccalaureate degrees, support economic vitality, and improve quality of life. We are committed to fostering excellence in teaching and learning with comprehensive and responsive programs and services, at campuses and centers across the region, and through distance learning.

BCTC provides general education and transfer programs, career and technical programs, transitional education and literacy skills development, workforce training, and continuing education. We strive to create intellectual and physical environments that promote diversity and inclusion, cultural and global awareness, critical thinking, civic responsibility, professional competence, and sustainability.

BCTC is a public college and member of the Kentucky Community and Technical College System awarding 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.

Theatre (A)

Occupational/Technical Curricula

Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diplomas (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:
Medical Information Technology (C, D, A)
Office Systems Technology (C, D, A)
Business Management and Marketing (C, A)
Civil Engineering Technology (A)
Clinical Laboratory Technology (C)
Collision Repair Technology (C, D)
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 Assisting/Dental Hygiene (D)
Dental Hygiene (A)
Dental Laboratory Technology (C, A)
Education (C, 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)
Geographic Information Systems Technology (C)
Health Information Technology (C, A)
Human Services (C, A)
Homeland Security / Emergency Management (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)
Practical Nursing (C, D)
Radiography (A)
Real Estate (C)
Respiratory Care (C, A)
Security Management (C)
Surgical Technology (D, A)
Welding Technology (C, D, A)

Contact Information

Cooper Campus
470 Cooper Drive
Lexington, KY 40506-0235
(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
(859) 246-6200
bluegrass.kctcs.edu

Danville Campus
59 Corporate Drive
Danville, KY 40422-9690
(859) 239-7030
bluegrass.kctcs.edu

Lawrenceburg Campus
1500 Bypass North US 127
Lawrenceburg, KY 40342-9465
(502) 839-8488
bluegrass.kctcs.edu

Winchester-Clark County Campus
2020 Rolling Hills Lane
Winchester, KY 40391
(859) 737-3098
bluegrass.kctcs.edu

Additional Sites

**Downtown Adult Education Center**
120 W. High Street
Lexington, KY 40508
(859) 253-9603 for English Speakers
(859) 246-6897 for Spanish Speakers
bluegrass.kctcs.edu

**Georgetown Advanced Manufacturing Center**
PSC/NA-K
1001 Cherry Blossom Way
Georgetown, Ky 40324
(502) 570-6357

**Lancaster Higher Education Center**
67 Public Square
Lancaster, Ky 40444
(859) 792-1513

**North American Racing Academy**
Thoroughbred Training Center
3380 Paris Pike
Lexington, KY 40511
(859) 293-0209

**Thoroughbred Training Center**
3380 Paris Pike
Lexington, KY 40511
(859) 256-3557

Phone Numbers
(859) 246-6200
(859) 246-6210
(859) 246-6611
(859) 246-6661
1-855-246-BGRS (1-855-246-2477)
(859) 246-6220
(859) 246-6530
1-855-246-BGRS (1-855-246-2477)
(859) 246-6643
(859) 246-6380
(859) 246-6507
(859) 246-6490
(859) 246-4620
(859) 246-6666

**Administration**
President/CEO August A. Julian
Vice President, Academics David Hellmich
Dean of Academics Greg Feeney
Dean of Academics Bonnie Nicholson
Vice President, Student Development
and Enrollment Management Palisa Williams-Rushin
Vice President, Information Technology Services Ren Bates
Vice President, Workforce
and Institutional Development Mark Manuel
Vice President, Finance and Operations Lisa Bell
Vice President, Multiculturalism and Inclusion Charlene Walker
Vice President, Regional Campuses and Outreach Tri Roberts
Chief Officer, Public Information and Marketing Linda Epling

**Faculty**
Adair, Gerald M, Associate Professor, MA, Florida Atlantic University, 2000
Adams, Neftali, Instructor, BS, University of Kentucky, 2005
Adkins, Michael A, Associate Professor, MS, University of Missouri, 1980
Akins, Marilyn, Assistant Professor, PhD, Cornell University, 1993
Allen, Keith, Instructor, MS, University of Kentucky, 2012
Anderson, Melissa M, Associate Professor, BS, Eastern Kentucky University, 2012
Anderson, Stephanie A, Associate Professor, BA, University of Kentucky, 1987
Anthony, Joseph G, Professor, MA, University of Long Island, 1979
Bailey, Mary F, Assistant Professor, AAS, Eastern Kentucky University, 2003
Baker, Lucinda, Associate Professor, MA, Ohio University, 1997
Baker, Melinda, Instructor, DNP, University of Kentucky, 2013
Ball, Andrew Barrett, Associate Professor, MA, University of Kentucky, 1988
Barber, Antonio, Instructor, AAS, Central Kentucky Technical College, 2003
Barber, Cynthia E., Professor, MAT, University of Kentucky, 1984
Baxter, Martin S, Associate Professor, MEd, Eastern Kentucky University, 2012
Bentley, Michael D, Assistant Professor, MA, Bowling Green State University, 2000
Bieg, Robert J, Associate Professor, Eastern Kentucky University, 1998
Binzer, Michael A, Associate Professor, BS, University of Cincinnati, 1987
Birch, Timothy E, Associate Professor, BA, University of Kentucky, 1991
Birchfield, Martha J, Professor, MEd, University of Kentucky, 1976
Black, Ina Kaye, Associate Professor, MS, Eastern Kentucky University, 1997
Blair, Kimberly, Instructor, AAS, Bluegrass Community & Technical College, 2010
Blankenship, Paul D, Professor, MS, West Virginia University, 1990
Blaydes, Mary, Associate Professor, MS, University of Kentucky, 2002
Boedner, Paula, Assistant Professor, BS, Eastern Kentucky University, 2010
Boes, Don, Associate Professor, MFA, Indiana University, 1985
Bradley, James W, Associate Professor, MS, University of South Carolina, 1999
Brandford, Arica, Instructor, BSN, Purdue University, 2001
Brecht, Sharon K, Professor, MA, Morehead State University, 1983
Bronner, Nancy, Associate Professor, MS, University of Kentucky, 1979
Brown, Dana, Associate Professor, BS, Murray State University, 2002
Buckner, Terry, Associate Professor, MS, University of Kentucky, 2001
Callan Jr, Paul C, Associate Professor, MS, Eastern Kentucky University, 1992
Camargo, Irene, Instructor, M.A., East Central University, 1993
Carlton, Mary, Instructor, MA, University of Mobile, 2006
Carr, Sharon H, Associate Professor, MA, University of Kentucky, 1986
Chesher, William, Instructor, BS, Eastern Kentucky University, 2011
Chirwa, Robert M, Associate Professor, MS, University of Kentucky, 2005
Chittenden, C David, Associate Professor, MBA, University of Kentucky, 1971
Clark, Jamie, Assistant Professor, MA, Morehead State University, 2002
Coley, Bobby J, Associate Professor, MS, Eastern Kentucky University, 2006
Conley, Yasmin K, Associate Professor, PhD, University of Kentucky, 2005
Couplin, Charles Hamilton, Professor, MEd, University of Kentucky, 1995
Craycraft, Kevin, Associate Professor, AAS, Central Kentucky Technical College, 2005
Cropper, Maureen Elizabeth Tobin, Associate Professor, MSIS, Louisiana State University, 2004
Crowe, Kathi, Assistant Professor, MA, Eastern Kentucky University, 1979
Davis, Angela M, Associate Professor, MA, University of South Carolina, 2000
Davis, Robin M, Associate Professor, MS, University of Kentucky, 1981
<table>
<thead>
<tr>
<th>Name</th>
<th>Title, Degree, Institution, Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kavanaugh, Susan C</td>
<td>Professor, MSEd, University of Kentucky, 1981</td>
</tr>
<tr>
<td>Kalala, Nkongolo</td>
<td>Associate Professor, PhD, University of Kentucky, 1995</td>
</tr>
<tr>
<td>Jones, Mary W</td>
<td>Instructor, MS, Eastern Kentucky University, 2013</td>
</tr>
<tr>
<td>Jones, Jenny</td>
<td>Associate Professor, MBA, Eastern Kentucky University, 1992</td>
</tr>
<tr>
<td>Johnson, ER</td>
<td>Assistant Professor, PhD, University of Kentucky, 1984</td>
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<tr>
<td>Johnson, Tanya R</td>
<td>Assistant Professor, BA, University of Kentucky, 1992</td>
</tr>
<tr>
<td>Jones, Jenny</td>
<td>Associate Professor, MBA, Central Kentucky Technical College, 2002</td>
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<tr>
<td>Kelly, Debra Ann</td>
<td>Professor, MEd, University of Cincinnati, 1980</td>
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<tr>
<td>Kelly, Ryan S</td>
<td>Professor, MS, Florida State University, 1995</td>
</tr>
<tr>
<td>King, Richard N</td>
<td>Professor, MS, University of Kentucky, 1994</td>
</tr>
<tr>
<td>Knight, Brandon</td>
<td>Associate Professor, MA, Texas Tech University, 1998</td>
</tr>
<tr>
<td>Knowles, Tracy Lyn</td>
<td>Associate Professor, MS, University of Indiana, 1998</td>
</tr>
<tr>
<td>Kolasa, James Reid</td>
<td>Professor, MS, University of Kentucky, 1994</td>
</tr>
<tr>
<td>Land, Carolyn</td>
<td>Assistant Professor, MSN, Wright State University, 1993</td>
</tr>
<tr>
<td>Lane Jr, Leon</td>
<td>Associate Professor, MA, University of Kentucky, 1993</td>
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<tr>
<td>Lanier, Rebecca A</td>
<td>Associate Professor, MSEd, University of Kentucky, 1992</td>
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<tr>
<td>Lefler, Patricia Sue</td>
<td>Professor, PhD, University of Indiana, 2004</td>
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<tr>
<td>Lenning, Kristan</td>
<td>Associate Professor, MS, University of Indiana, 1983</td>
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<tr>
<td>Leon, Ana E</td>
<td>Professor, MS, Jacksonville State University, 1987</td>
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<tr>
<td>Leonard, Cynthia W</td>
<td>Associate Professor, MA, University of Kentucky, 1984</td>
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<tr>
<td>Lewis, Michelle</td>
<td>Instructor, AAS, Eastern Kentucky University, 2004</td>
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<td>Liles, Tammy Jo</td>
<td>Professor, MS, University of Kentucky, 1994</td>
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<td>Littrell, Michael</td>
<td>Instructor, MS, Eastern Kentucky University, 2008</td>
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<td>Livingston, Daniel</td>
<td>Assistant Professor, BFA, Eastern Kentucky University, 2005</td>
</tr>
<tr>
<td>Long, Jarvis</td>
<td>Instructor, BBA, Eastern Kentucky University, 1974</td>
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<tr>
<td>Lynch, Laura</td>
<td>Assistant Professor, MS, Eastern Kentucky University, 2006</td>
</tr>
<tr>
<td>Madison, Lynn H</td>
<td>Associate Professor, MA, Georgetown College, 1987</td>
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<td>Magee, David A</td>
<td>Professor, MBA, University of Cincinnati, 1981</td>
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<td>Martin, Diana Wallace</td>
<td>Professor, MA, University of Kentucky, 1990</td>
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<td>Matchuney, James K</td>
<td>Associate Professor, BS, University of Indiana, 1987</td>
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<td>Mayer, Danny</td>
<td>Associate Professor, PhD, University of Kentucky 2007</td>
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<td>Mayo, Karen</td>
<td>Associate Professor, MA, Eastern Kentucky University, 2000</td>
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<td>McCarty, Anne M</td>
<td>Associate Professor, BS, University of Massachusetts, 1976</td>
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<td>Miller, Kausha C</td>
<td>Professor, MNS, Southeast Missouri State University, 2000</td>
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<td>Miller, Patricia A</td>
<td>Associate Professor, MSEd, University of Kentucky, 1996</td>
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<td>Miller, Patricia P</td>
<td>Professor, MAED, University of Kentucky, 1994</td>
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<td>Miriri, Landrea A</td>
<td>Professor, MA, Montclair State University, 1988</td>
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<td>Motamedi, Hossein</td>
<td>Associate Professor, MA, University of Kentucky, 1986</td>
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<td>Mueller, Chad Eric</td>
<td>Professor, MS, University of Colorado, 1995</td>
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<td>Mulliken, Larry McDowell</td>
<td>Associate Professor, MS, Eastern Kentucky University, 1973</td>
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<td>Murphy, Donna L</td>
<td>Professor, MHE, Morehead State University, 1982</td>
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<td>Murphy, William Kevin</td>
<td>Associate Professor, MBA, University of Kentucky, 1991</td>
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<td>Nation, Patrice A</td>
<td>Associate Professor, PhD, Oklahoma State University, 1988</td>
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<td>Olson-Biglieri, Joanne M</td>
<td>Professor, MA, Bowling Green State University, 1984</td>
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<td>Otnio, Idah Aoko</td>
<td>Professor, MA, Eastern Kentucky University, 2001</td>
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<td>Ott, John S</td>
<td>Associate Professor, MA, University of Kentucky, 1988</td>
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<td>Ozbun, John</td>
<td>Professor, MAED, University of Louisville, 1989</td>
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<td>Papanicolaou, Thomas</td>
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<td>Parin, Vicki D</td>
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<td>Pelfrey, DeAnna S</td>
<td>Associate Professor, MS, Eastern Kentucky University, 2005</td>
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<td>Pelfrey, Holly Joyce</td>
<td>Associate Professor, MSEd, University of Kentucky, 1993</td>
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<td>Pest, Elisabeth</td>
<td>Instructor, BS, McKendree College, 2002</td>
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<td>Perry Jr, Clavis C</td>
<td>Associate Professor, MA, Western Kentucky University, 1985</td>
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<td>Pevley, Jennifer</td>
<td>Associate Professor, MAED, Eastern Kentucky University, 2007</td>
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<td>Platt, Tricia C</td>
<td>Associate Professor, MS, University of Cincinnati, 1989</td>
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<td>Potter, Robyn J</td>
<td>Associate Professor, MS, Eastern Kentucky University, 2008</td>
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<td>Potteker, Clarice L</td>
<td>Associate Professor, MA, University of Kentucky, 2000</td>
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<td>Ramsey, Tammy Jones</td>
<td>Associate Professor, MFA, Spaulding University, 2004</td>
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<td>Richardson, Kathleen E</td>
<td>Professor, MALIS, Rosary College, 1983</td>
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<td>Rickert, Gregory W</td>
<td>Associate Professor, MA, University of Kentucky, 1992</td>
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<td>Rigney, Leif E</td>
<td>Associate Professor, MA, Eastern Kentucky University, 2001</td>
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<td>Rinehart, Peggy</td>
<td>Instructor, DNP, Bellarmine University, 2012</td>
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<td>Ripley, Michael Brett</td>
<td>Professor, MA, Eastern Kentucky University, 1990</td>
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<td>Ritchie, Olivia</td>
<td>Instructor, BSED, Eastern Kentucky University, 2010</td>
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<td>Roberts, Danny D</td>
<td>Instructor, AAS, Central Kentucky Technical College, 2004</td>
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<td>Robertson, Allan S</td>
<td>Associate Professor, BS, University of Kentucky, 1995</td>
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<tr>
<td>Robertson, Marshall Hughes</td>
<td>Professor, MA, University of Kentucky, 1984</td>
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<td>Roemmele, Lise I</td>
<td>Associate Professor, MS, University of New York at Stony Brook, 1997</td>
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<td>Rogers, Thomas Foster</td>
<td>Professor, MArch, University of Kentucky, 2007</td>
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<tr>
<td>Ross-Brown, Kimberly</td>
<td>Associate Professor, MA, University of Nebraska, 1996</td>
</tr>
<tr>
<td>Roue, Mary Goza</td>
<td>Associate Professor, MS, Florida State University, 1979</td>
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<tr>
<td>Royalty Jr, Bobby G</td>
<td>Associate Professor, MS, Eastern Kentucky University, 2006</td>
</tr>
<tr>
<td>Rutherford, Maria</td>
<td>Associate Professor, MA, University of Kentucky, 2006</td>
</tr>
<tr>
<td>Sallie, Melanie D</td>
<td>Associate Professor, BSN, University of Kentucky, 1991</td>
</tr>
<tr>
<td>Salyers, David</td>
<td>Instructor, AAS, Central Kentucky Technical College, 2003</td>
</tr>
<tr>
<td>Saunier, Margaret E</td>
<td>Professor, PhD, University of Kentucky, 1987</td>
</tr>
<tr>
<td>Schuman, Daniel B</td>
<td>Professor, PhD, University of Kentucky, 2002</td>
</tr>
</tbody>
</table>
Scott Jr, John C, Associate Professor, MA, Eastern Kentucky University, 1990
Shear, Susan Knox, Assistant Professor, MHA, University of Kentucky, 1994
Simms, Ruth A, Associate Professor, MS, Eastern Kentucky University, 1995
Simpson, Zachary, Instructor, BHS, University of Kentucky, 2011
Singleton, Debbie Lynn, Professor, MAEd, University of Kentucky, 1977
Sloan, Perry, Instructor, AAS, Bluegrass Community and Technical College, 2003
Smoote, Richard C, Professor, PhD, University of Kentucky, 1988
Snyder, William D, Associate Professor, DMD, University of Kentucky, 1993
Spencer, Janelle, Professor, MSEd, University of Kentucky, 1992
Stiles, V Carol, Associate Professor, MSW, University of Louisville, 1999
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, Associate Professor, PhD, Cornell University, 1989
Sturgill, David, Assistant Professor, BS, University of Kentucky, 1995
Sullivan-Davis, Deborah, Assistant Professor, PhD, University of Kentucky, 2003
Swango, Kathleen, Associate Professor, MA, Morehead State University, 1982
Taghizadeh, Rasoul, Associate Professor, MS, University of Kentucky, 1989
Taylor, Edwin D, Associate Professor, BS, Eastern Kentucky University, 2008
Tibbatts, James, Instructor, BA, University of Western Ontario, 1986
Todd, Adrienne H, Assistant Professor, MA, Eastern Kentucky University, 1997
Topley, Maureen, Instructor, BSN, Duquesne University, 1986
Tucker, Cindy, Associate 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
Wachtel, David, Professor, PhD, State University of New York at Buffalo, 1983
Walker, Robert, Associate Professor, MS, Eastern Kentucky University, 1979
Watts, Jean, Associate Professor, MEM, Duke University, 1987
Webb, Dixie, Assistant Professor, MSN, University of Kentucky, 1977
Webster-Little, Stacy, Associate 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, Associate 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
Worth, Benjamin James, Professor, PhD, University of Kentucky, 2004
Wyatt, Nelda K, Associate Professor, EdD, University of Kentucky, 1999
Yeager, Constance, Associate Professor, BSN, University of Kentucky, 1991
York, Lee Ann, Assistant Professor, MS, University of Kentucky, 1999
Zeps, Valdis J, Associate Professor, PhD, University of Washington, 1989
Mission Statement/Status of Accreditation

Elizabethtown Community and Technical College (ECTC) is a comprehensive open access college that prepares people to live and work in a constantly changing world through dynamic teaching and learning environments.

ECTC accomplishes its mission 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 education, short-term customized training for business and industry designed to strengthen the work force and expand the life skills, knowledge and 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, 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 our diverse communities.

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:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
  - Office Systems 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 (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)
- 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, D)
- Quality Management Systems (C, D, A)
- Radiography (A)
- Real Estate (C)
- Respiratory Care (C, A)
- Welding Technology (C, D, A)
- Workforce Solutions (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
Ext. 68858

Springfield Campus
160 Corporate Drive
Springfield, KY 40069
859-336-1743

Leitchfield Campus
101 East Carroll Gibson Boulevard
Leitchfield, KY 42754

General Information

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

(270) 706-8695
(270) 706-8455
(270) 706-8819
(270) 706-8812
(270) 706-8530
(270) 706-8815
(270) 706-8700
elizabethtown.kctcs.edu
Administration

President/CEO
Dr. Thelma J. White

Interim Provost/Chief Academic Officer
Dr. Diane Owlesy

Chief Student Affairs Officer
Dr. Dale Buckles

Chief Operations Officer
Keith Johnson

Dean of Business Affairs
Jonathan Thompson

Dean of Instructional and Professional Development
Sue French

Dean of Institutional Effectiveness

and Off Campus Programs

Dean of Workforce Development
Dr. Jack Dilbeck

and Continuing Education

Interim Campus Director Springfield
Dr. Tom Davenport

Chief Institutional Advancement Officer
Darrin Powell

Human Resources Director
Ron Harrell

Financial Aid Director
Kris Wood

Public Relations Director
Michael Barlow

Cultural Diversity Director
Mary Jo King

Information Technology Director
Felicia Toliver

Library Director
Chris Lee

Learning Lab Director
Ann Thompson

Distance Learning
Pam Harper

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
Dr. Penelope Logsdon

Division of Social & Behavioral Sciences
Paul Sturgeon

Theresa Stewart

Faculty

Ames, William Nelson, Professor, MSN, Spalding University, 1998

Ballard, Sue K, Professor, MS, Eastern Kentucky University, 1976

Barrow, Ramona, Assistant Professor, MS, Strayer University, 2004

Beauchamp, Cheryl, Instructor, MBA, DeVry University, 2008

Biddle, Mary, Instructor, MSN, Walden University, 2012

Blanks, Rhonda, Assistant Professor, MSN, University of Phoenix, 2010

Bow, Bobby K, Associate Professor, 16 years teaching experience, 22 years occupational experience

Bratcher, Tracy Renea, Associate Professor, MA, Western Kentucky University, 1998

Brockman, Douglas W, Associate Professor, AAS/AAT, Elizabethtown Technical College, 2000

Brown, Charles J, Associate Professor, MBA, University of Louisville, 1969

Brown, Margaret, Assistant Professor, MA, Western Kentucky University, 2007

Buck, David C, Associate Professor, MAT, University of Louisville, 1991

Buck, Ellen P, Professor, MA, University of Louisville, 1985

Cameron, Sandra W, Professor, ME, University of Louisville, 2007

Cantrell, Charles C, Associate Professor, MED, University of Kentucky, 1986

Cantrell, Douglas E, Professor, MA, University of Kentucky, 1985

Cantrell, Lisa A, Professor, MA, Morehead State University, 1986

Case, Ryan M, Associate Professor, PhD, University of California, 2004

Chandler-Cousins, Lois, Associate Professor, ME, University of North Carolina, 1997

Chion, John, Associate Professor, AAS, Elizabethtown Community & Technical College, 2002

Clark, Fredericka S, Associate Professor, AS, Sullivan College, 1995

 Clemmons, Jerry L, Professor, MS, Eastern Kentucky University, 2010


Cole, William, Associate Professor MS, Murray State University, 2001

Condilff, Sara E, Assistant Professor, MAE, University of Kentucky, 2007

Cordova, Timothy M, Professor, MA, Midwestern State University, 2002

Coulston, Charles, Instructor, MS, University of Kentucky, 2006

Cow, Julie S, Professor, MAE, Western Kentucky University, 1998

Coyle, Michael B, Professor, MA, Vanderbilt University, 1966

Davis, John D, Assistant Professor, PhD, University of Kentucky, 2003

Dile, Beverly, Professor, MS, West Virginia University, 1984

Dixon, Lucinda, Instructor, DWM, Auburn University, 2010

Doty, Brent Morgan, Associate Professor, MA, Western Kentucky University, 2003

Dryden, John, Instructor, MA, University of Louisville, 2003

Edwards, Sarah, Assistant Professor, MA, Walden University, 2007

Eicher, Katrina M, Professor, MA, University of Nebraska, 1989

Embry, Robin D, Professor, MSN, University of Louisville, 1994

Erwin, Jill, Assistant Professor, MAE, University of Louisville, 2001

Esawi, FK, Instructor, PhD, University of Kentucky, 1997

Fentress, Phyllis J, Professor, MSN, Spalding University, 1991

Fisher, Pat, Associate Professor, BS, University of Louisville, 1992

Fulkerson, Douglass, Instructor, MA, University of Kentucky, 1992

Gabhart, Stephen, Instructor, AS, Western Kentucky University, 2008

Gahburt, Kimbera, Instructor, MS, McKendree University, 2008

Galloway, Joseph, Assistant Professor, MS, Western Kentucky University, 2005

Glutting, Martha J, Professor, MSN, University of Louisville, 1989

Haque, Khondaker E, Professor, MA, University of Pittsburgh, 1981

Hardesty, Celeste, Instructor, BS, University of Louisville, 2007

Harris, Robert I, Professor, MA, Western Kentucky University, 1975

Hart, Judy A, Associate Professor, MED, University of Louisville, 1991

Hawkins, Jacqueline, Associate Professor, MA, Florida State University, 2006

Hazzard, Michael W, Associate Professor, BS, Western Kentucky University, 2007

Hendricks, Arthur A, Associate Professor, AAS, Elizabethtown Technical College, 2001

Hicks, MeLeah Dyer, Professor, MA, Western Kentucky University, 1994

Higdon, Rebecca, Associate Professor, BA, Midway College, 2007

Hill, C C, Professor, PhD, University of Kentucky, 1966

Holman, Richard, Associate Professor, MBA, Georgia State University, 1976

Hornback, Mary C, Professor, Western Kentucky University, 1989

Howard, Linda G, Professor, MAE, Western Kentucky University, 1980

Jantzen Jr, Dalton, Professor, BS, Western Kentucky University, 2005

Johnson, Cyril, Assistant Professor, BS, Western Kentucky University, 2006

Johnson, Taylor, Assistant Professor, MS, Western Kentucky University, 2005

Jones, Megan, Assistant Professor, MS, Morehead State University, 2010

Keaton, David, Instructor, MA, University of Pittsburgh, 2010

Kelley, Lawrence, Associate Professor, MA, University of Memphis, 2006

Kelle, Shawn A, Associate Professor, PhD, University of Louisville, 2005

Kennedy, Kevin, Professor, MS, Indiana University, 1996

Kroll, Daniel, Assistant Professor, AAS, Elizabethtown Community & Technical College, 2008

Likins, Stephen S, Assistant Professor, AS, Western Kentucky University, 1999

Lilgren, Deena, Assistant Professor, MA, University of Louisville, 2009

Lloyd, Daniel Montgomery, Associate Professor, MS, Eastern Illinois University, 1998

Logsdon, Charles G, Professor, MA, University of Louisville, 1999

Logsdon, Penelope S, Professor, EdD, Western Kentucky University, 2011

Lowe, Robert Alan, Associate Professor, AAS, Elizabethtown Technical College, 2003

MacKellar, Laurie A, Associate Professor / Librarian II, MLS, University of Kentucky, 1992

Madras, Nadin, Associate Professor, MS, Marquette University, 2001

Mayhew, Linda N, Professor, EdD, University of Kentucky, 1992

McCorbie, Bradley Assistant Professor, MSN, Indiana Wesleyan University, 2009

McFalls, Tiffany, Assistant Professor, MS, Southeastern Louisiana University, 2004

Meredith, Rosemary L, Associate Professor, BS, University of Louisville, 1995

Metzger, Revel L, Professor, MA, Western Kentucky University, 1998

Meyer, Callista, Associate Professor / Librarian II, MLS, University of Kentucky, 2007

Mink, Ellen, Professor, MA, Western Kentucky University, 2000

Molgaard, Ronald E, Professor, MS, Western Kentucky University, 2010

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

Nail, Joe J, Professor, BS, University of Louisville, 2000

Nason, Dean W, Associate Professor, MAE, Western Kentucky University, 1979

Nemes, Janice E, Professor, MAT, University of Louisville, 1983

Nusbaum, David D, Associate Professor, MA, University of Montana, 1987

Owens, Johnny, Professor, MAE, Western Kentucky University, 1986

Owens, Rebecca M, Associate Professor, MSN, University of Louisville, 1995

Owsley, Wanda D, Professor, PhD, University of Louisville, 2009

Page, Martha, Assistant Professor, MS, Vanderbilt University, 1979

Parrett, Kevin, Instructor, MS, Sullivan University, 2005

Parris, Steven B, Professor, MA, Webster University, 1991

Pate, Lloyd, Instructor, AAS, Elizabethtown Technical College, 2003

Potat, Wanda E, Professor, MA, Western Kentucky University, 1979

Poteet, Gordon D, Associate Professor, MS, Western Kentucky University, 1997

Raizor, Glenn, Assistant Professor, AAS, Elizabethtown Community & Technical College, 2005

Ray, Rachel, Assistant Professor, MA, Indiana University, 2005
Redmon, Jason, Instructor, MA, Northern Michigan University, 2007
Reed, Joseph, Instructor, AAS, Elizabethtown Community & Technical College, 2008
Rich, Amanda, Instructor, 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, Instructor, MBA, University of Phoenix, 2011
Schork, James E, Professor, EdD, Northern Illinois, 1994
Shank, Kevin, Instructor, MA, University of Louisville, 2008
Slone, Anthony, Associate Professor, MBA, Ashland University, 2001
Spalding, Jared C, Associate Professor, BS, Western Kentucky University, 2002
Spataro, Charles P, Professor, MA, Ball State University, 1978
Spratt, Sharon I, Professor, MA, Western Kentucky University, 1989
Stearns, Gary M, Professor, PhD, University of Kentucky, 1990
Stewart, Theresia B, Associate Professor, MA, North Eastern University, 1977
Stiles, Deborah, Instructor, BSN, University of Louisville, 2010
Sturgeon, Paul D, Professor, BS, University of Louisville, 1993
Sutherland, Marty L, Associate Professor, BS, Southern Illinois University, 1996
Thomson, 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
Walston, Patricia, Assistant Professor, MA, University of Louisville, 2000
Wicks, Edward, Assistant Professor, MS, Syracuse University, 2001
Williams, Richard D, Associate Professor, MA, Western Kentucky University, 1978
Wolf, Joe, Assistant 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
Yates, Rita Jo, Associate Professor, MSSW, University of Louisville, 1995
Young, Cody, Assistant Professor, AAS, Bluegrass Community & Technical College, 2004
Zulevich, Louis, Assistant 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. Partnerships with school districts, colleges, universities, business and industry, and the community at large are part of our seamless system of entrepreneurial-learning, which creates pathways to success through:

- Certificate, diploma, associate degree and transfer programs.
- Developmental, adult, and continuing education.
- Workforce and customized training.
- Support services for the enhancement of student learning and success.

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

- Air Conditioning Technology (C, D)
- Apprenticeship Studies (A)
- Automotive Technology (C, D)
- Business Studies:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
  - Collision Repair Technology (C, D)
  - Computer Aided Drafting and Design (C, D)
  - 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 and Wellness Technology (C, A)
Health Education (C)
Health Information Technology (C, A)
Human Services (A)
Instructional Design & Learning Technology (C, A)
Interactive Design Technology (C)
Interdisciplinary Early Childhood Education (C, D, A)
Kentucky Medication Aide (C)
Manufacturing Engineering Technology (C, A)
Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D, A)
Medicaid Nurse Aide (C)
Medical Assisting (C, A)
Nursing (A)
Pharmacy Technology (C)
Plumbing Technology (C)
Visual Communication:
  - Design and Technology (C, D)
  - Multimedia (C)
Welding Technology (C, D)

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

Boone Campus
500 Technology Way
Florence, KY 41042

Covington Campus
1025 Amsterdam Rd.
Covington, KY 41011

Edgewood Campus
790 Thomas More Parkway
Edgewood, KY 41017

Park Hills Center
1030 Old State Rd.
Park Hills, KY 41011

Urban Center
525 Scott Boulevard
Covington, KY 41011

General Information
Admissions (859) 442-1134
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)
Career Services (859) 442-1149
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
Marketing and Public Relations (859) 442-1172
Registrar (859) 442-1136
Safety and Security  (859) 442-4129
Transfer Director  (859) 442-1183
Urban Center  (859) 442-1601
Veterans Affairs  (859) 442-4111
Workforce Solutions  (859) 442-1170
Website gateway.kctcs.edu
Facebook facebook.com/GatewayCTC

Administration

President Dr. G. Edward Hughes
Executive Assistant to the President Sharon Poore
Provost/Vice President for Academic Affairs Dr. Laura Urban
Vice President for Business Affairs and Administrative Services W. Michael Baker
Vice President, Resource Development and External Affairs Laura Cook Kroeger
Vice President, Workforce Solutions & Innovation Dr. Angie Taylor
Vice President, Student Affairs Ingrid Washington
Vice President, Knowledge Management and Strategic Initiatives Dr. Patricia Goodman
Associate Provost for Academic Affairs Dr. Teri VonHandorf
Associate Provost/Dean of Nursing and Allied Health Dr. Ross Santell
Dean, Enrollment Services Andre Washington
Dean, Workforce Solutions Carissa Schutzman
Associate Dean, Student Development Mallis Graves
Associate Dean, Student Development Lisa Mohr
Division Chair, Arts, Humanities and Social Science Dr. Susan Santos
Division Chair, Developmental Education and Orientation to College, and Director, Quality Enhancement Plan Dr. Kerri McKenna
Division Chair, Business, Design and Technology Antoinette Bloom
Division Chair, Manufacturing and Trades Technologies Dec Wright
Division Chair, Transportation Technologies Sam Collier
Division Chair, Allied Health Susan Chaney
Division Chair, Nursing Teresa Mank
Division Chair, Science, Technology and Mathematics Dr. Yohanes Honu
Registrar Robin Wright
Special Assistant to the President Jack Keller
Director of Adult Education/COMPASS Coordinator Peg Russell
Director, Advising Center Ann Schultz
Director, Budget and Accounting James Younger
Director, Center for Workforce Development Philip Accardi
Director, Disability Services Colleen Kane
Director, Early College Initiatives Shelby Krentz
Director, First Year Experience Vacant
Director, Financial Aid Justin Cristello
Director, Grants and Contracts Dr. Amber Decker
Director, Inclusion and Cultural Initiatives and Assistant to the President Michael Lee
Director, Human Resources Phyllis Yeager
Director, Information Services Melissa Sears
Director, Learning Environments/eLearning Doug Penix
Director, Knowledge Management Jeremy Berberich
Director, Library and Information Services Vacant
Director, Maintenance and Operations George Hall
Director, Marketing and Public Relations Margaret Thomson
Director, North Central Area Health Education Center Rose Mueller
Director, Print Center Henry Bang
Director, Safety and Security Tim Chesser
Director, Transfer Services Michael Rosenberg

Faculty

Albert, Stephanie Winter, Assistant Professor, MEd, Northern Kentucky University, 1993
Auberger, Anne, Instructor, BSN, Wheeling Jesuit University, 1992
Bang, Henry, Instructor, 8 Years Teaching Experience, 38 Years Occupational Experience
Bessler, Martha, Instructor, AAS, Northern Kentucky University, 1997
Bethel, Carol L, Professor, MBA, Xavier University, 1989
Bloom, Antoinette, Assistant Professor, 18 Years Teaching Experience, 13 Years Occupational Experience
Blum-Pretty, Sherry, Instructor, MA, Northern Kentucky University, 2010
Bowen, Richard, Professor, AAB, Cincinnati State Technical & Community College, 1976
Brown, Paula, Instructor, 37 Years Teaching Experience, 40 Years Occupational Experience
Burch, Courtney, Assistant Professor, MA, Northern Arizona University, 2009
Camm, Jana, Associate Professor, MEd, Northern Kentucky University, 1981
Carrino, Amy, Assistant Professor, JD, Salmon P Chase College of Law, 1988
Carter, Amber, Assistant Professor, BS, Eastern Kentucky University, 2009
Cathcart, John, Assistant Professor, MS, Texas A&M University, 2010
Chaney, Susan, Associate Professor, MEd, Northern Kentucky University, 1980
Cloud, Amelia, Instructor, MDiv, Lexington Theological Seminary, 2001
Coller, Samuel E, Associate Professor, AAB, Cincinnati State Technical & Community College, 1988
Collins, Thomas W, Professor, BS, University of Cincinnati, 1977
Cirz, Karen, Instructor, MS St. Joseph University, 1993
Da Silva, Fares, Assistant Professor, MA, Indiana State University, 2008
Daly, Paula A, Professor, BS, Northern Kentucky University, 1985
DeBerry, Ronald, Assistant Professor, MBA, Morehead State University, 2009
DeChene, Jennifer, Professor, PhD, University of Louisville, 2003
Donshoo, Kevin H, Associate Professor, AS, University of the State of New York, 1982
Down, Sharon, Instructor, MA, University of Virginia, 1993
Driggers, Kathleen, Instructor/Library IV, MS, University of Kentucky, 2007
Ervin, Justin, Assistant Professor, PhD, Northern Arizona University, 2011
Fritz, Diane, Assistant Professor, MS, Medical University of Ohio, 1997
Gayle, Veronica, Instructor, BS, Eastern Kentucky University, 1971
Grooms, Chad M, Assistant Professor, MBA, Morehead State University, 1998
Hanlon John T, Associate Professor, BS, Northern Kentucky University, 1998
Harris, Vernon R, Associate Professor, BS, Northern Kentucky University, 2000
Haysbert, Ronald, Assistant Professor, BTM, DeVry University, 2009
Heinrich, Joshua, Instructor, MA, The George Washington University, 2011
Herzog, Tracey, Instructor, BSN, Northern Kentucky University, 2007
Honu, Yohanes, Associate Professor, PhD, Southern Illinois University, 2004
Jing, Weizhong, Assistant Professor, MS, New Jersey Institute of Technology, 1998
Jones, Kenneth, Assistant Professor, 8 Years Teaching Experience, 12 Years Occupational Experience, ASE Master Certification
Kane, Colleen N, Associate Professor, MEd, University of North Florida, 1980
Karle, Martha, Instructor, BS, Eastern Kentucky University, 1984
Ko, Sarah, Instructor, AAS, Gateway Community and Technical College, 2008
Lestem, Jennifer, Instructor, BS Eastern Kentucky University, 1999
Lintz, Lauren, Assistant Professor/Library III, ML, Kent State, 2007
Loh, Diana, Assistant Professor, MSN, Northern Kentucky University, 2011
Lorman, Michael A, Instructor, 26 Years Teaching Experience, 22 Years Occupational Experience
Lybrock, Adam C, Instructor, Automotive Technician Diploma, Hibbing Community College, 2000
Mahan, Jerrell L, Assistant Professor, AAS, Northern Kentucky University, 1991
Mathew, George, Professor, PhD, University of Kentucky, 1994
Mauk, Craigton, Associate Professor, PhD, Oregon State University, 1992
Mauk, Teresa Norton, Associate Professor, MS, University of Kentucky, 1998
McKenna, Kerri, Assistant Professor, EdD, Northern Kentucky University, 2011
Neeley, Rocky, Assistant Professor, MA, University of Cincinnati, 2008
Nelson, Lance, Associate Professor, BA, Marshall University, 1987
Poppel, Elizabeth, Assistant Professor, BA, College of Mount St. Joseph, 1993
Ramanayake, Deepanishantha, Assistant Professor, MS, Morehead State University, 2008
Read, Richard, Associate Professor, MSEEE, University of Cincinnati, 1970
Reynolds, Jon, Instructor, BA, Centre College, 1995
Rhine, James, Assistant Professor, MA, Ohio State University, 1984
Rice, Barbara, Assistant Professor, MBA, West Virginia University, 1997
Rickert, 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
Rittenhiler, Nancy A., Assistant Professor, BSN, Northern Kentucky University, 2001
Rogers, Randy, Instructor, BS, West Virginia University, 1984
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, Assistant Professor, PhD, Walden University, 2004
Schilling, Judith C, Assistant Professor, MEd, Northern Kentucky University, 1987
Selzer, Thomas J., Instructor, Automotive Technician Diploma, Pinellas Vocational Technical Institute, 1986
Settemoir, Beth, Assistant Professor, ME, University of Cincinnati, 2008
Shearer, Joseph, Assistant Professor, MS, University of Kentucky, 2001
Siekman-Hall, Stacey L., Instructor, MS, University of Cincinnati, 2008
Smith, Monica M., Instructor, AAS, Cincinnati State Technical and Community College, 2009
Speier, Rose, Assistant Professor, BSN, Indiana Wesleyan University, 2010
Stewart, Gregory, Assistant Professor, PHD, Ohio University, 1993
Stocksler, Robyn, Assistant Professor, MA, University of Cincinnati, 2004
Takakura, Ilona, Assistant Professor, MS, California State University, 2003
Textor, Mary, Instructor, MA, Northern Kentucky University, 2006
Thomas, Theresa, Associate Professor, Master of Design, University of Cincinnati, 2000
Vallette, Natasha, Instructor, MA, Bowling Green State University, 2012
Vieira, Rachel, Instructor, Practical Nurse Diploma, Gateway Community and Technical College, 2005
Warburton, Charles, Associate Professor, MA, University of Cincinnati, 2006
White, Gwendolyn Rene, Professor, MBA, Morehead State University, 2007
Wright, Dee, Associate Professor, 12 Years Teaching Experience, 26 Years Occupational Experience
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 honored 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.
- Air Conditioning Technology (C, D)
- Appalachian Studies (C)
- Automotive Technology (C, D, A)
- Business Studies:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
- Collision Repair Technology (C, D)
- Computer Aided Drafting and Design (C, D)
- Computer and Information Technologies (C, A)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Diagnostic Medical Sonography (A)
- Diesel Technology (C, D)
- Emergency Medical Services – Paramedic (C)
- Fire/Rescue Science Technology (C, A)
- General Occupational/Technical Studies (A)
- Health Information Technology (C, A)
- Heavy Equipment Operation (C, D)
- Human Services (C, A)

Interactive Design and Technology (C)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
- Medicaid Nurse Aide (C)
- Medical Laboratory Technology (C)
- Mining Technology (C, A)
- 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, D, A)
- Welding Technology (C, D)
- Workplace Essentials (C)

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) 487-3062
Business Office 1-855-6GO-HCTC (1-855-646-4282)
Disability Services (606) 487-3405
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) 487-3155
Veterans Affairs (606) 487-3059
Workforce Solutions (606) 487-3136
Website hazard.kctcs.edu
Mission Statement/Status of Accreditation

The mission of Henderson Community College is to partner with the community in assessing and providing educational, economic, workforce development, civic and cultural programs that

- Provide high-quality general education curriculum for the first two years of a baccalaureate program (Associate in Arts and Associate in Science degrees).
- Provide high-quality technical programs to prepare students for immediate employment (certificates, diplomas, or Associate in Applied Science degrees).
- Provide continuing education, adult education, and customized training to prepare a competitive workforce.
- Provide personal enrichment and cultural opportunities.

Henderson Community College, a member of the Kentucky Community and Technical College System, is a public associate degree granting institution serving Northwest Kentucky.

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, A)
  - Business Management and Marketing (C)
  - Clinical Laboratory Technology (C, A)
- 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)
- Nursing (A)
- Practical Nursing (C, D)
- 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 (270) 831-9611
Advising (270) 831-9610
Assessment Center (270) 831-9772
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) 831-9760
Orientation (270) 831-9607
Public Relations (270) 831-9805
Records (270) 831-9652
Technology Solutions Help Desk (270) 831-9616
Transfer Information (270) 831-9828
Veterans Affairs (270) 831-9685
Workforce Solutions (270) 831-9658

Administration

President and CEO
Dr. Kris Williams

Provost
Dr. David Brauer

Chief Business Affairs Officer
Mr. Jerry Gentry

Dean of Success Grants
Ms. Pam Wilson

Chief Information Systems Officer
Ms. Kim Conley

Chief Institutional Advancement Officer
Ms. Susanne Wilson

Assistant Dean and Director of Planning, Evaluation and Research
Mr. Mike Thurman

Director of Cultural Diversity
Mr. William L. Dixon

Assistant Dean for Library Services
Mr. Mike Knecht

Division of Arts & Humanities/Related Technologies
Mr. Mike Knecht

Division of Biological Sciences/Related Technologies
Ms. Kim Dean

Division of Physical Sciences/Related Technologies
Ms. Rebecca Wells

Division of Social & Behavioral Sciences/Related Technologies
Mr. Eugene Patsalides

Assoc. Dean/Director of Nursing
Dr. Tammy Owen

Interim Director of Workforce Solutions
Ms. Victoria Reed

Faculty

Becker, Kara, Assistant Professor, ME, Western Kentucky University, 2003
Bennett, Brenda, Associate Professor, MS, Western Kentucky University, 1995
Blackburn, Catherine, Professor, MFA, East Carolina University, 1993
Blanchard, Eric, Assistant Professor, DMA, University of Cincinnati College of Conservatory of Music, 2010
Brauer, David, Professor, PhD, State University of New York, 1979
Buchanan, Marlena, Associate Professor, MSN, University of Southern Indiana, 2000
Burton, Sharon, Professor, MA, Ohio University, 1983
Caudill, Sharon, Professor, MA, Murray State University, 1970
Chandler, Shelly, Assistant Professor, MSN, Murray State University, 2010
Chappell, Michelle, Instructor, MS, Morehead State University, 2011
Cherry, Doris, Professor, MS, Western Illinois University, 1979
Davis, Yvonne, Associate Professor, MSN, University of Southern Indiana, 2004
Dean, Kim, Professor, MS, Western Kentucky University, 1986
Donahoo, Lori, Instructor, MSN, Western Kentucky University, 2013
Fritts, David, Professor, PhD, Ohio University, 2012, MA, Ohio University, 1984
Fuchs, Pennae, Professor, MSN, 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
Holland, Ashley, Instructor, EdD, Oakland City University, 2013
Hunt, Cathy, Professor, MS, University of Kentucky, 1980
Jones, Mary Jane, Professor, MSN, University of California Los Angeles, 1979
Jones, Mei, Instructor, MS, University of Southern Indiana, 2006
Joy, Brian, Associate Professor, MBA, National University, 2000
Joy, Lilia, Associate Professor, MA, Murray State University, 2003
Kasenow, Paul, Professor, MA, Kent State University, 1987
Kipling, Sheri, Instructor, BS, University of Southern Indiana, 2010
Knecht, Michael, Professor, MBA, Western Kentucky University, 1999, MLS, Emporia State University, 1992
Maltby, Lorie, Professor, MA, Ohio University, 1983
Mattingly, Carole, Assistant Professor, MSN, University of Southern Indiana, 2012, MBA, University of Evansville, 1989, BSN, University of Evansville, 1980
McCarty, Steven, Professor, MA, Western Kentucky University, 1991
Meyer, Janet, Assistant Professor, MSN, University of Phoenix, 2009
Mihankhah, Kianpour, Professor, MS, Ball State University, 1979
Murch, Carol, Associate Professor, MSN, Murray State University, 2010
Murray, Bridget, Professor, MEd, Indiana State University, 1998
Owen, Tammy R, Associate Professor, EdD, University of Phoenix, 2008
Owens, Randy, Associate Professor, BA, University of Kentucky, 1970
Patsalides, Eugenios, Professor, MA, Western Kentucky University, 1997
Phelps, Barry, Instructor, BS, Kentucky Wesleyan College, 2002
Reid, Kevin, Professor, MLS, University of Kentucky, 1993, MA, Purdue University, 1986
Siewert, Margaret, Professor, MSN, University of Evansville, 1978
Strawn, Anthony, Professor, MA, University of Evansville, 1979
Taylor, Scott, Instructor, MS, Murray State University, 2010
Threlkeld, Lori, Associate Professor, MS, Murray State University, 1992
Thomas, Stephen, Professor, MBA, Memphis State University, 1976
Thurman, Michael, Professor, MBA, University of Evansville, 1984
Tutt, Larry, Associate Professor, MA, Murray State University, 1981
Wells, Rebecca, Professor, MS, Eastern Kentucky University, 1985
Whitaker, Deborah, Professor, MSN, Murray State University, 2002
Winstead, Laura, Professor, MS, Murray State University, 1996
Yates, Deborah, Associate Professor, MSN, Canyon College, 2010
Hopkinsville Community College

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 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.

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)
Agricultural Technology (C, D, A)
Automotive Technology (C)
Business Studies:
- Business Administration Systems (C, D, A)
- Medical Information Technology (C, D, A)
- Office Systems Technology (C, A)
Clinical Laboratory Technician (C)
Computer Aided Drafting and Design (C, D)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D)
Construction Technology (C)
Criminal Justice (C, A)
Diesel Technology (C, D, A)
Education (C, A)
Engineering and Electronics Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Science Technology (A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
- Electrical Technology (C, D)
- Industrial Maintenance Technology (C, D)
Nursing (A)
Pharmacy Technology (C)
Practical Nursing (C, D)
Quality Management Systems (C, D)
Welding Technology (C)

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

West Kentucky Regional Post-Secondary Education Center
5305 Ft. Campbell Boulevard
Hopkinsville, KY 42240

General Information

(270) 707-3700

Admissions
Pat Hinton
(270) 707-3813

Adult Education
Gary Dawson
(270) 707-3926

Advising Center
Deloria Scott
(270) 707-3823

Testing Center
Martha Metcalfe
(270) 707-3826

Business Office
Matthew Davenport
1-855-22GO-HCC (1-855-224-6422)

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

Workforce Solutions
Carol Kirves, Interim
(270) 707-3750

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

Distance Learning Support
Ryan Ray
(270) 707-3903

Financial Aid
Janet Gunther
1-855-22GO-HCC (1-855-224-6422)

Human Resources
Yvonne Glasman
(270) 707-3722

International Student Services
Dr. Jason Warren
(270) 707-3801

Library
Cynthia Atkins
(270) 707-3761
Faculty

Akpm, Reginald C, Associate Professor, MA, Central Michigan University, 1982
Alexander, Robert Douglas, Instructor, MS, Murray State University, 2008
Arnold, Jason E, Professor, MS, Murray State University, 2008, MS, Southern Illinois University at Carbondale, 1997
Atkins, Cynthia F, Prof/CC Lib Svc Dir, MS, Western Kentucky University, 1986, MLS, George Peabody College, 1975
Bain, Scott Alexander, Assistant Professor, MS, University of Illinois at Urbana-Champaign, 2004
Beverly, Elizabeth A, Assistant 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, Associate Professor, MA, Webster University, 1984
Broadbent, John S, Professor, MA, Austin Peay State University, 2002, MA, Trevecca Nazarene College, 1993
Burrell, Jahrael Victor, Instructor, 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, Associate Professor, MA, State University of New Jersey
Casey, John, Instructor, MS, Austin Peay State University, 2002
Darnessa, Meh, Associate Professor, MA, Marshall University, 2005, MBA, Marshall University 2003
Dawsey, Karen, Assistant Professor, M.D., University of Louisville School of Medicine, 1979
Duncan, Terry D, Professor, MBA, Murray State University, 1980, MS, Murray State University 1973
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
Felton, Kevin E, Professor, EdD, Tennessee State University, 1986
Good, Kandi Lea, Instructor, BSN, Murray State University, 2010, BS, Kentucky State University, 1992
Gunn, Amanda Joy, Instructor, BSN, Chamberlain College of Nursing, 2010
Higdon, Terri, Assistant Professor, BSN, Union University, 1996
Holt, Stephanie, Associate Professor, MA, Eastern Kentucky University, 1994
Hoover, Donald L, Professor, MAT, Middle Tennessee State, 1967
Howell, William T, Associate Professor, MA, Appalachian State University, 1993
Hunter, James T, Professor, MS, University of Kentucky, 1984
Jackman, Sarah F, Assistant Professor, ME, University of Texas at El Paso, 1980, MET, University of Texas at El Paso, 1992
Justice, Gaye Ann, Instructor, BSN, Western Governors University, 2011
Laffoon-Jackson, Julia, Assistant Professor, MA, Western Kentucky University, 1981
Lambruno, Joyce, Assistant Professor, MSN, Murray State University, 2010
Lamprecht, Donna R, Associate Professor, MS, Florida Institute of Technology, 2002
Lancaster, Kristin Marie, Assistant Professor, MS, Air Force Institute of Technology, 2010
Larkin, Vernell D, Professor, EdD, University of Kentucky, 2001
Leons, Sherry L, Professor, MS, Austin Peay State University, 1994
Little, Shannon Leigh, Instructor, BSN, Murray State University, 2009
Lutz, Roger, Associate Professor, AAS, Hopkinsville Community College, 2004, Certification, CFPIHM and CFPIHT, 2001
McClure, Michael W, Professor, MS, Murray State University, 1981
McCormack, Sherry Lynn, Assistant Professor, MS, Murray State University, 2009
Meade, Beth Ann, Instructor, BSN, The University of Tennessee-Knoxville, 1988
Meador, Barbara W, Associate Professor, MA, Austin Peay State University, 1978
Montgomery, Frank W, Associate Professor, EdD, Valdosta State, 1990
Nichols, Linda A, Professor/Library, MA, University of Louisville, 2006, MLS, University of Kentucky, 2000
Partney, Jeffrey A, Associate Professor, Certificate, National Occupational Competency Testing Institute, 1999
Pendleton, Arthur D, Professor, MBA, Western Kentucky University, 2003
Perdue, Denise Kay, Assistant Professor, MS, Murray State University, 2009
Pniewski, Tommie 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, MBA, Murray State University, 1996
Riley, Patrick J, Professor, MA, University of Missouri, 1997
Rives, Anita W, Professor, MBA, Murray State University, 2004
Robitaille, Kimberly Yvette, Associate Professor, Ph.D, University of Tennessee-Health Science Center, 2012, MSN, University of Phoenix, 2000
Sandifer, Dana R, Professor, MS, Murray State University, 1996
Sauermann, Amanda C, Professor, MA, Gannon University, 1993
Sauermann, Bernd Eberhard, Professor, MFA, McNeese State, 1993, MA, McNeese State, 1993
Schultz, Arthur Ray, Assistant Professor, MS, Tennessee State University, 2009
Scott, Deoria A, Professor/CC Counselor, MS, Murray State University, 1996
Sims, Derek, Assistant Professor, MBA, Murray State University, 2011, MS, Southern Illinois University, 2007
Smith, Robert William, Assistant Professor, MAE, Marian University, 2009
Stahl, Anne L, Assistant Professor, MA, Austin Peay State University, 1983
Stewart, Sharon K, Instructor, MSN, Walden University, 2008
Vince, Billy J, Professor, PhD, Ohio State University, 1972
Wilkinson, Daniel M, Professor, MM, Western Kentucky University, 1984
Williams, Sandra Kaye, Assistant Professor, r, BSN, Kentucky Wesleyan College, 1984
Wilson, Ted H, Professor, MA, Baylor University, 1983
Windshield, Taylor L, Associate Professor, MA, Murray State University, 1971
Young, Alissa L, Professor, Ed.D, University of Kentucky, 2013, MS, Murray State University, 1993
Zieman, Stuart David, Instructor, 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:

1. 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).
2. Maximize student achievement through an institutional commitment to effective teaching and support services.
3. 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.
4. Provide an inclusive, accessible, and safe learning and working environment.
5. 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)

Arts Administration (C)
Automotive Technology (C, D, A)
Aviation Maintenance Technology (C, D, A)
Business Studies:
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D)
  Office Systems Technology (C, D, A)
Collision Repair Technician (C, D)
Computer Assisted 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)
Diagnostic Medical Sonography (C, A)
Digital Game and Simulation Design (C)
Education (C, 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)
Homeland Security/Emergency Management (C)
Horticulture (C, D, A)
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, D)
  Industrial Maintenance Technology (C, D, A)
Mechatronics (C)
Medical Administrative Services (C)
Medical Assisting (C, D, A)
Medical Laboratory Technology (C, A)
Nuclear Medicine and Molecular Imaging Technology (A)
Nursing (A)
Occupational Therapy Assistant (A)
Pharmacy Technology (C, D)
Physical Therapist Assistant (A)
Plumbing Technology (C, D)
Practical Nursing (C, D)
Radiography (A)
Real Estate (C, 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)
Wood Manufacturing Technology (C, D)
Zoo Animal Technician (C)
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 40227
(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

General Information (502) 213-5333

Admissions
(502) 213-4000
Bursar’s Office
1-855-2GO-JCTC (1-855-246-5282)
Business Office
(502) 213-2103
Center for Community Workforce
and Economic Development
(502) 213-2223
Disability Services
(502) 213-2449
Financial Aid
1-855-2GO-JCTC (1-855-246-5282)
Human Resources
(502) 213-2118
Library – Bullitt County
(502) 213-7911
Library – Downtown
(502) 213-2154
Library – Jefferson Technical
(502) 213-4100
Library – Southwest
(502) 213-7222
Library – Carrollton
(502) 732-4846
Library – Shelby County
(502) 633-3618
Marketing and Communications
(502) 213-2400
Records
(502) 213-4000
Transfer Information Liaison
(502) 213-4000
Veterans Affairs
(502) 213-2139

Administration

President
Dr. Anthony Newberry
Provost and Vice President for Academic
and Student Affairs
Dr. Diane Calhoun-French
Dean of Academic Affairs – Downtown Campus
Dr. Randall Davis
Dean of Academic Affairs – Southwest Campus
Bob Silliman
Dean of Academic Affairs – Technical Campus
Dr. Carolyn O’Daniel
Dean of Student Affairs – Downtown Campus
Dr. Laura Smith
Dean of Student Affairs – Southwest Campus
Dr. Denise Gray Lackey
Director of Carrollton Campus
Susan Carlisle
Director of Shelby County Campus
Dr. John Wieland
Director of Bullitt County Campus
Donna Miller
Department of Workforce Solutions
Mary Ann Hyland-Murr
Institutional Advancement
Jo Carole Dickson
Vice President for Planning, Effectiveness, and Research
Dr. Mary Jones
Marketing and Communications
Lisa Brosky
Division of Arts and Humanities – Downtown
Marlisa Austin
Division of Arts and Humanities – Southwest
Donna Elkins
Division of Business – Downtown
Dr. Pam Besser
Division of Technology and Related Sciences
Dr. Bruce Jost
Division of Natural Sciences/Math – Downtown
Caroline Martinson
Division of Natural Sciences/Math – Southwest
Charles Parvis
Division of Reading and Academic Success – Downtown
Reneau Waggoner
Division of Social and Behavioral Sciences – Downtown
Charles McCombs
Division of Social and Behavioral Sciences – Southwest
Cathy Wright
Division of Allied Health
Eva Ruth Oltman
Division of Nursing
Sonia Rudolph
Division Technology and Industry
Andrew Kornowski
Director of Library Services – Downtown, Carrollton, and Technical Campuses
Sheree Williams
Director of Library Services – Southwest, Bullitt County, and Shelby County Campuses
Rafe Johnson

Faculty

Ackerman, Jennifer, Assistant Professor, MA, University of Louisville, 1993
Adams, Constance, Assistant Professor, MSN, McKendree University, 2007
Adams, James, Assistant Professor, MHA, University of Phoenix, 2007
Adams, Jill, Associate Professor, MA, East Carolina University, 1998
Alderdice, Phyllis, C, Professor, PhD, Indiana University, 1990
Arterburn, Kay Poindecker, Professor, MAT, University of Louisville, 1987
Asamoah, Samuel R, Associate Professor, MBA, Pittsburg State University, 1989
Ash, Daniel W, Associate Professor, PhD, University of Louisville, 1988
Ashley, Barbara R, Professor, PhD, University of Pittsburgh, 1981
Attarzadeh, Hamid, Associate Professor, MS, University of Louisville, 1991
Austin, Marli A, Professor, MA, Union College, 1999
Barker Jr, John J, Instructor, BBA, Eastern Kentucky University, 1970
Barley, Brandon, Associate Professor, MS, Virginia Tech, 2003
Baughman, James G, Professor, PhD, University of Kentucky, 1976
Beebe, Patricia, Professor, MA, University of Kentucky, 1976
Beeler, Crystal R, Instructor, AAS, Jefferson Community and Technical College, 2009
Benz, Linda J, Professor, MS, University of Wisconsin-Madison, 1978
Besser, Mary P, Professor, PhD, University of Louisville, 1985
Betts, Autumn, Assistant Professor, MSW, Southern Baptist Theological Seminary, 1996
Bingham, Martha P, Associate Professor, MA, Murray State University, 1970
Blackburn, Leo J, Instructor, 9 years teaching experience, 25 years occupational experience
Bloyd, Deborah, Associate Professor, MSN, University of Louisville, 1984
Boswell, Melanie A, Professor, MS, Florida State University, 2000
Boyal, Lisbeth, Assistant Professor, MA, Murray State University, 2008
Brandon, Keely, Instructor, MS, Kanasawa University, 2009
Brett, Stephanie, Instructor, MA, University of Louisville, 2010
Broadhead, Morgan R, Professor, MA, Princeton University, 1965
Brooks, Albert, Instructor, AAS, Jefferson Community College, 2000
Browne, Kevin, Instructor, MA, University of Louisville, 1995
Bruner, Ella R, Associate Professor, EdD, Spalding University, 2006
Buchanan, Roberta, Instructor, MFA, Spalding University, 2004
Buckler, Michael, Associate Professor, MA, University of Louisville, 1996
Burks, Ismon, Assistant Professor, MA, City University of New York, 1979
Butts, Justin Todd, Instructor, MS, University of Kentucky, 2007
Bush, Sherman L, Professor, MEd, University of Louisville, 1977
Butsch, Pamela M, Professor, PhD, University of Louisville, 1999
Butsch, Richard A, Professor, PhD, University of Louisville, 2005
Calahan, William J, Professor, MA, Webster University, 1975
Calhoun-French, Diane, Professor, PhD, University of Louisville, 1982
Cameron, Shauna, Instructor, MS, Bellarmine University, 2006
Cartwright, Andrea, Assistant Professor, MA, University of Louisville, 2006
Changaris, Lim T., Associate Professor, MS, Western Kentucky University, 2004
Chatmon, Virenee D, Professor, MA, Spalding University, 1990
Charasika, Margie W, Professor, EdD, Spalding University, 1998
Cheatham, Cathy A, Instructor, MEd, Western Kentucky University, 1979
Northcutt, Renn, Associate Professor, MD, Western Baptist Theological Seminary, 1989
Nowicki, Robert G., Instructor, MA, Western Kentucky University, 1978
O’Brien, Cheryl A, Professor, MD, University of Louisville, 1993
O’Brien, Nicholas B, Instructor, AAS, Jefferson Community and Technical College
O’Brien, Amanda, Instructor, Ph.D., University of Louisville, 2012
O’Daniel, Carolyn, Professor, EdD, University of Kentucky, 1987
Olsen, Bobby G, Professor, MAT, Northwest Missouri State University, 1978
Oltman, Eva R, Professor, MEd, University of Louisville, 2003
Pack, Don, Professor, EdD, University of Louisville, 1999
Parry, Daniel, Associate Professor, EdD, University of Louisville, 2000
Payton, Denise, Assistant Professor, BSN, University of Louisville, 2000
Peters, Jane, Associate Professor, PhD, University of Kentucky, 2005
Phillips, Greg, Assistant Professor, AAS, Jefferson Community and Technical College, 2012
Pilliteri, Gerald J, Assistant Professor, AAS, Jefferson Community & Technical College, 2012
Pitchford, Jennifer, Assistant Professor, BS, University of Evansville, 1997
Plattner, Wilson J, Associate Professor, 17 Years Teaching Experience, 22 Years Occupational Experience
Prather, Mark C, Associate Professor, BA, Indiana University, 1989
Prueitt, Stephen R, Professor, PhD, University of Louisville, 1997
Purvis, Charles D, Professor, MS, State University of New York, 1989
Pyle, Jeffrey G, Instructor, Med, University of Louisville, 2010
Ragade, Anila R, Professor, PhD, University of Louisville, 1988
Raaras, Awad R, Associate Professor, MA, University of Kansas, 1985
Reflitt, Donna N, Associate Professor, MA, Georgetown College, 1996
Regnier, Adrienne M, Associate Professor, MA, University of Illinois, 1992
Reinsel, Caroline, Instructor, MA, Eastern Kentucky University, 2007
Repper, Frank, Associate Professor, MM, Eastern Kentucky University, 1983
Richardson, Letitia, Instructor, PhD, University of Kentucky, 2005
Riedel, Donna D, Associate Professor, MS, University of Massachusetts, 1987
Riedling, Robert I, Professor, MS, University of Louisville, 1997
Riley, Cynthia M, Instructor, AAS, Jefferson Community and Technical College, 2010
Riley, William A, Professor, PsyD, Spalding University, 1991
Riley, Angela, Associate Professor, MSBC, Spalding University, 2008
Robertson, Elsa S, Professor, MAT, Spalding University, 1983
Robertson, Peter, Assistant Professor, MEd, University of Louisville, 2000
Rodgers, Claud D, Associate Professor, MA, University of Louisville, 1968
Rodski, Peter A, Professor, MA, Eastern Kentucky University, 1992
Rommel, Ralph G, Instructor, BS, Embry-Riddle Aeronautical University, 2001
Rudolph, Sonia R, Associate Professor, MSN, Spalding University, 2003
Sabie, Benita, MD, University of Louisville School of Medicine, 1982
Savell, Constance, Instructor, MPH, Ohio State University, 2003
Schmidt, Carol P, Professor, MA, University of Louisville, 1981
Schneider, Lisa V, Associate Professor, PsyD, Spalding University, 1987
Schotter, Kara, Instructor, MA, University of Louisville, 2012
Scichlone, Bryan, Associate Professor, MA, Western Washington University, 2005
Sellars, Telly R, Associate Professor, EdD, Spalding University, 2006
Shiffman, Betty, Professor, PhD, University of Louisville, 1994
Simon, Lisa, Instructor, MFA, Michigan State University
Sistare, Jasper, Jr, John, Professor, MA, Indiana University, 1969
Sloan, Russell E, Instructor, FAA Certification, 3 Years Occupational Experience
Smithy, Pamela, Assistant Professor, MS, Quinnipiac University, 2011
Spears, Peggy A, Associate Professor, MS, Murray State University, 1989
Spears, Sandra L, Professor, MS, Western Kentucky University, 1974
Sprinkle, Amy C, Professor, MS, Eastern Kentucky University, 1986
Spurr, Sally A, Associate Professor, MEd, University of Kentucky, 1982
Steidman, William A, Professor, PhD, University of Kentucky, 1999
Stevens, Becky, Professor, MAE, Western Kentucky University, 2008
Stewart, Amelia, Professor, PhD, Ohio University, 1987
Stewart, James H, Associate Professor, MS, Western Kentucky University, 1991
Stoddard, Hilda A, Professor, EdD, Indiana University, 1977
Stokes, Kevin B, Professor, MA, Washington State University, 1992
Stone, Doris A, Associate Professor, MSN, Bellarmine University, 2004
Summers, Lisa A, Instructor, AAS, Purdue University, 1982
Swarnapuri, Tripura, Associate Professor, MS, Western Kentucky University, 2003
Tackett, Charles, Instructor, MA, Western Kentucky University, 2007
Talbott, Laura, Associate Professor, BSN, University of Kentucky, 1991
Taylor, Stacy, Associate Professor, MA, University of Louisville, 1999
Tchune, Jerry D, Professor, PhD, University of Minnesota, 1976
Tharpe, Byron F, Associate Professor, MA, University of Tulsa, 1997
Theobald, Susan H, Professor, MSN, Bellarmine University, 1992
Thompson, Diane, Instructor, MA, Western Kentucky University, 2011
Thompson, Michael, Instructor, PhD, University of Louisville, 2000
Thompson, Vickie, Teacher, MA, Western Kentucky University, 2000
Thorne, James G, Associate Professor, MAT, University of Louisville, 1976
Tomei Jr, Donte A, Assistant Professor, MA, Eastern Illinois University, 1996
Tyler, Bonita, Instructor, MA, Western Kentucky University, 2011
Urban-Payne, Jonella, Assistant Professor, MSN, McKendree University, 2007
Varner, Katy L, Professor, EdD, Spalding University, 2000
Veigl, Victoria L, Associate Professor, PhD, Indiana University, 1980
Vogel, David M, Associate Professor, PhD, University of Louisville, 2002
Wagner, Reneau, Associate Professor, MA, Western Kentucky University, 1999
Walld, Ronald M, Professor, MA, University of Louisville, 1967
Ward, John, Associate Professor, MBA, University of Louisville, 2000
Warford, Benny F, Instructor, 10 years teaching experience, 20 years occupational experience
Washington, Jannie L, Professor, MEd, University of Louisville, 2000
Watro, Paul R, Professor, MA, Bowling Green State University, 1973
Watters, Keith B, Instructor, Certification in FAA Airram and Powerplant
Webb, Linda, Associate Professor, MS, University of Louisville, 1998
Wechter, Bree, Associate Professor, MA, Eastern Illinois University, 2002
Weldon, Betty E, Professor, MA, University of Louisville, 1986
Wehde, Valerie J, Associate Professor, PhD, University of Cincinnati College of Medicine, 2001
Whisman, Michael C, Associate Professor, BS, University of Louisville, 2000
White, Deborah C, Professor, MSN, University of Kentucky, 1982
Wieland, John, Assistant Professor, PhD, Marquette University, 2001
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, Lisa, Instructor, PhD, University of Louisville, 1986
Williams, Sheree Huber, Professor, MLS, University of Kentucky, 1981
Wixon, Brian N, Instructor, MA, University of Louisville, 2011
Wolf, Russell M, Assistant Professor, 20 years teaching experience, 17 years occupational experience
Wong, Edmund, Associate Professor, MA, University of South Carolina, 1991
Wood, Blandy, Instructor, MA, Spalding University, 1991
Wood, Diane, Assistant Professor, MA, University of Kentucky, 1999
Wood, Mark, Associate Professor, MS, University of Southern California, 1981
Wright, Catherine, Associate Professor, MA, Marshall University, 1988
Wright, Mark, Professor, MEng, University of Louisville, 1992
Wright, Relda L, Professor, MEd, University of Louisville, 1993
Yocum, Heather L, Instructor, MA, Northern Kentucky University, 2010
Young, Eliza M, Professor, PhD, Michigan State University, 1999
Zaussch, Jo Fouts, Professor, EdD, Spalding University, 1996

Correctional Sites

Green River*  Duncan Ponvert, Annie F, Associate Professor, MA, Western Kentucky University, 2004
Edelen, Cathy I, Associate Professor, MA, Murray State University, 1983
Lovel, Karen, Instructor, BS, University of Kentucky, 1973
Piper, Sherry A, Professor, MA, Western Kentucky University, 1998
Eddylive (KSP)*  Belt, Danny, Instructor, Master Electrician License
Fowler, Lori, Instructor, BA, Eastern Kentucky University, 1994
Money, Ricky, Assistant Professor, AA, Madisonville Community College, 2007
Phillips, Stephen, Associate Professor, MS, Murray State University, 2003
Renn, Robert D, Instructor, MS, University of Kentucky, 1986

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

Luther Lckett*  Blandford, Harold M, Associate Professor, MA, Spalding University, 1985
Lawrey, Charles D, Associate Professor, AS, Jefferson Community and Technical College, 2006
Little, Willis, Assistant Professor, MA University of Kentucky, 1973

Pewee Valley (KCIW)*  Heavrin, Kathryn P, Professor, MS, Indiana University, 1988
Ludwig, Charles W, Professor, MS, University of Louisville, 1978

West Kentucky*  Herzing, Steven M, Associate Professor, MS, Murray State University, 1999
Kinnis, Jared, Instructor, BS, Western Kentucky University, 2005
Mestan, Sean, Instructor, BA, Murray State University, 1983
Walker, Margaret, Assistant Professor, BA, Murray State University, 1992

*Note: HB 164 passed during the 2010 Kentucky General Assembly transferred managerial oversight and responsibility for Corrections Education programs to the Department of Corrections, effective July 1, 2010. Some facility listed could have elected to transfer to the Department of Corrections. 
Mission Statement/Status of Accreditation

Madisonville Community College, a member of the Kentucky Community and Technical College System, is a public comprehensive community college serving the western Kentucky region. It is committed to establishing and nurturing a learning-centered, outcomes-based, culturally diverse organization. The mission of Madisonville Community College is:

- To offer curricula for the first two years of a baccalaureate program which lead to the awarding of the Associate of Arts or Associate of Science degree and which are transferable to all colleges and universities, public and private, in the Commonwealth;
- To offer curricula for two-year, career oriented programs, which lead to the Associate in Applied Science degree and which prepare students for immediate technical or semi-professional employment;
- To offer curricula for technical diploma and certificate level programs which are not necessarily intended for transfer and which are designed to meet the changing demands of business and industry;
- To offer courses in developmental education, adult basic education, and workplace essential skills training, which prepare participants to be successful at the postsecondary level and in the workplace;
- To provide customized training services to Kentucky employers; and
- To provide continuing education, professional development, and personal enrichment opportunities to the public and arts appreciation and arts education opportunities for the region, all for the purpose of encouraging life-long learning and improving the quality of life, knowledge, and skills of Kentucky workers and citizens.

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)
Air Conditioning Technology (C, D, A)
Business Studies:
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D, A)
Clinical Laboratory Technology (C, D, A)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, 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)
Funeral Service (A)
General Occupational/Technical Studies (A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Mining Technology (C, D, 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 Campus
750 N Laffoon Street
Madisonville, KY 42431
(270)824-1751

ACE2 and Assessment Center
150 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
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 (1-855-554-6622)
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. Judith Rhoads

Chief Academic Affairs Officer
Dr. Deborah Cox

Dean of Student Affairs
Dr. Jay Parrent

Chief Business Affairs Officer
Ray Gillaspie

Workforce Solutions
Mike Davenport

Grants, Planning, and Effectiveness
David Schuemmer

Institutional Advancement
John Peters

Public Relations Coordinator
Joyce Riggs

Division of Applied Technologies
David C. Alisp

Division of Arts & Humanities
Christy S. Atkins

Division of Allied Health
Karol Conrad

Division of Nursing
Patricia Simmons

Division of Mathematics and Sciences
Dr. John Lowbridge

Division of Social and Behavioral Sciences
Chester Cunningham

Faculty

Adams, Sara Lyn Balduf, Associate Professor, Ph.D., Florida State University, 2008

Adkins, Christy S, Associate Professor, MS, Washington University, 2011

Allen, Clarissa Elke, Assistant Professor, MA, East Tennessee State University, 2007

Allen, E Shannon, Professor, MSN, University of Kentucky, 2001

Alisp, David C, Assistant Professor, MS, Murray State University, 2003

Atcher, Leah A, Assistant Professor, MSN, Indiana Wesleyan University, 2011

Bailey, Amberly Brooke, Instructor, MA, Murray State University, 2009

Bennett, Tate R, Professor, MS, West Virginia University, 1989

Berges, Cherry L, Professor/Librarian I, MLS, Clarion University, 1992

Bidwell, Jeffrey J, Associate Professor, MA, Murray State University, 1999

Birdsong, Ronnie D, Associate Professor, MS, Murray State University, 2008

Burton, Misty, Y, Instructor, BS, Eastern Kentucky University, 1995

Chumley, Monica D, Professor, MS, Western Kentucky University, 1992

Clayton, Donald O, Professor, MA, Murray State University, 1973 Phased Retirement

Clayton, Wendy Dail, Associate Professor, MSN, Western Kentucky University, 2008

Conrad, Karol A, Professor, MS, Murray State University, 1995

Cook, Ava M, Assistant Professor, BSN, University of Louisville, 2000

Cooper, Natalie F, Professor, MS, Murray State University, 1998

Crick, Amy M, Instructor, AAS, Madisonville Community College, 2011

Cunningham, Chester M, Professor, MBA, Murray State University, 1998

Davis, Marcella A, Professor, MA, Murray State University, 1983 Phased Retirement

Davis, Reid A, Associate Professor, BS, Western Kentucky University, 1999

Davis, Sharon D, Assistant Professor, MS, University of Kentucky, 1993

Davis, Timothy F, Associate Professor, BIS, Murray State University, 2007

Deal, Andrea L, Associate Professor, MA, Murray State University, 2005

Deal, Robert Michael, Assistant Professor, BS, Mid-Continent University, 2010

Dean, Jack M, Professor, MA, Eastern Illinois University, 1981

Edens, Kellie Brooke, Assistant Professor, BSN, Indiana Wesleyan University, 2009

Elder, Loretta J, Associate Professor, MSN, University of Southern Indiana, 2006

Florea, Jeffrey J, Associate Professor, MS, Murray State University, 2000

Florea, Katrina M, Instructor, MS, Murray State University, 1999

Fugate, Sharon J, Associate Professor, MS, Morehead State University, 1990

Galgós, Darlena, Associate Professor, BS, Kaplan University, 2008

Garrity, Savanna C, Professor, MPA, Murray State University, 2008

Gary, Stacie L, Assistant Professor, MBA, Murray State University, 2009

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

Harriss, Peggy L, Instructor, BSN, Murray State University, 1999

Hawkins, Donovan Mark, Assistant Professor, MAT, Murray State University, 2007

Hawkins, Judith G, Professor, MS, University of Kentucky, 1985

Hayes, Kelly A, Associate Professor, BIS, Murray State University, 2007

Hewell, Sherry D, Professor, MED, University of Louisville, 1993

Hildebrandt, Jacob M, Assistant Professor, BS, Murray State University, 2001

Hill, Clarissa Rana, Professor, MS, Murray State University, 2007

Hofmann, M Ann, Professor, MSN, University of Evansville, 1996

Hughes, Thomas E, Instructor, BS, Murray State University, 1970

Jansen, Mary E, Professor, PhD, Indiana University, 1995

Jernigan, Dianne H, Assistant Professor, MA, University of Kentucky, 1973

Jewell, Gregory W, Professor, MA, Eastern Illinois University, 1978

Johnson, Felicia K, Professor, MA, Murray State University, 1987

Jones, Joey R, Professor, MS, Murray State University, 2012

Jones, Sara Jane, Assistant Professor, MSN, Murray State University, 2011

Joseph, Julia M, Instructor, AAS, Madisonville Community College, 1996

Lange, Paula Louise, Associate Professor, MS, Indiana University, 1996

Latham, Dawn L, Instructor, BSN, Austin Peay State University, 2009

Lear, Elyssa Gayle, Associate Professor, MS, Western Kentucky University, 2001

Lear, Tracie D, Assistant Professor, BSN, University of Louisville, 2001

Lee, Lisa E, Associate Professor, MAE, Western Kentucky University, 1998

Lewis, Harry R, Assistant Professor, MS, University of Evansville, 1986

Littlehale, Tracy, Assistant Professor, MS, Northeastern University, 1999

Lomache, Donald A, Instructor, BIS, Murray State University, 2011

Lowbridge, John, Associate Professor, PhD, South Bank University, 1971

Luckett, Matthew S, Instructor, AAS, ITT Technical Institute, 1991

Lutz, Rebecca Faith, Assistant Professor, BSN, Indiana Wesleyan University, 2009

Martin, Timothy S, Instructor, MRE, Liberty University, 2011

McElearn, Nancy J, Assistant Professor, MA, Murray State University, 1997

Melton, Chandy D, Instructor, MA, Murray State University, 2007

Mitchell, Judith A, Instructor, BSN, Murray State University, 1999

Moore, Elizabeth A, Professor, MS, Murray State University, 1989

Norton, Ann E, Professor, PhD, University of Louisville, 2011

Ngaaard, Timothy A, Professor, MPA, University of Nebraska, 1987

Oglesby, Sarah A, Professor, SCT, Murray State University, 1978

Peyton, Sarah B, Assistant Professor, MSN, Murray State University, 2011

Poe, Mary J, Assistant Professor, MAEd, Western Kentucky University, 1984

Qualls, Mary Kim, Assistant Professor, MS, Belmont University, 2004

Richmond, Camille E, Associate Professor/Librarian II, MLIS, Louisiana State University, 1991

Rohati, Janardan S, Associate Professor, PhD, University of Leeds, 1974

Roy Jr, Lawrence, Professor, MFA, George Mason University, 1989

Shifflett, George M, Professor, PhD, University of Virginia, 1989

Shockley, Sonya M, Assistant Professor, MAT, Webster University, 2005

Skene, Amanda F, Instructor, MPT, University of Evansville, 2003

Siddon, Tina M, Associate Professor, AAS, Madisonville Community College, 1997

Simmons, Patricia L, Professor, MSN, University of Evansville, 1989

Simons, Kimberly Lee, Professor, MA, Murray State University, 2001

Smith, Pamela S, Professor, MS, Murray State University, 1987

Stallins, Martiza, Professor, MSN, Murray State University, 1995

Tahkudar, Aseem, Associate Professor, PhD, University of Cincinnati, 2008

Terry, Rachel E, Professor, MS, Western Kentucky University, 2008

Vander Ploeg, Scott D, Professor, PhD, University of Kentucky, 1994

Vespie, Patricia K, Professor, MSN, University of Southern Indiana, 2001

Warren, Roger D, Professor, PhD, University of Kentucky, 1972

Welsh, Jennifer R, Instructor, MA, Western Kentucky University, 2009

Werner, Mary B, Professor, PhD, Northern Illinois University, 1996

West, Marlena K, Professor, MACT, Western Kentucky University, 1976

West, Robin R, PhD, Instructor, Indiana University, 2008

Wolfe, James Randolph, Instructor, AAS, Madisonville Community College, 1999

Woodall, Marsha Dianne, Associate Professor, MSN, University of Evansville, 2007

Woodall, Kimberly D, Instructor, AAS, Madisonville Community College, 2007

Woolf, James Randolph, Instructor, AAS, Madisonville Community College, 2007

Woolf, Marsha Dianne, Associate Professor, MSN, University of Southern Indiana, 2007

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:
1. Provide arts and science courses and associate degrees for transfer to baccalaureate institutions.
2. Offer technical degrees, diplomas, certificates, and courses for employment and career advancement.
3. Provide developmental education and adult education offerings.
4. Deliver workforce training and services to support personal enrichment, community development, and economic viability.
5. 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.

Maysville 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 Maysville 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)
Air Conditioning Technology (C, D)
Applied Engineering Technology (C, A)
Applied Process Technologies (C)
Automotive Technology (C, D)
Broadcast Television Technologies (C)
Business Studies:
- Business Administration Systems (C, D, A)
- Medical Information Technology (C, D, A)
- Office Systems Technology (C, D, A)
Collision Repair Technology (C, D)
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)
Education (C)
Emergency Medical Technician (C)
Energy Systems (C, A)
Engineering and Electronics Technology (C, D, A)
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)
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)

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

Maysville Campus
(606) 759-7141
Admissions
1-855-GO-9MCTC (1-855-469-6282)
Business Office
Workforce Solutions
Continuing Education
Disability Services
Financial Aid
Human Resources
Library
Records
Transfer Information Liaison
Veterans Affairs
Website
maysville.kctcs.edu
Rowan Campus

General Information
Admissions
Business Office
Financial Aid
Human Resources
Library
Records
Veterans Affairs
Workforce Solutions
Website
(606) 783-1538
Ext. 66362
1-855-GO-9MCTC (1-855-469-6282)
1-855-GO-9MCTC (1-855-469-6282)
Ext. 66310
Ext. 66366
Ext. 66314
Ext. 66312
606-780-0069
maysville.kctcs.edu

Licking Valley Campus

General Information
Admissions
Business Office
Financial Aid
Library
Records
Workforce Solutions
Website
(859) 234-8626
Ext. 66436
1-855-GO-9MCTC (1-855-469-6282)
1-855-GO-9MCTC (1-855-469-6282)
Ext. 66417
Ext. 66405
(859) 234-6689
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Administration

President/CEO
Ed Story, Ph.D.
Rowan Campus Branch Campus Director
Rus Ward
Rowan Campus Academic Coordinator
Stanley Click
Chief Academic Officer
Juston Paté, Ph.D.
Chief Business Officer
George Jones
Chief Officer, Workforce Solutions
Barbara Campbell
Licking Valley Campus Branch Campus Director
Bruce Florence
Licking Valley Campus Academic Coordinator
David Lawler
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
Patricia Massie
Dean of Student Development
George Jones
Chief Finance and Facilities Officer
Steve Winfrey
Associate Dean of Finance
Kimberly DeVaughn
Associate Dean of Distance Learning and Dual Credit Programs
Pam Stafford
Planning, Research, and Effectiveness
Dana Calland, Ed.D.
Associate Dean of Academic Support Services; Director of QEP and Coordinator, Developmental Studies
Bill Teegarden
Director, Adult Education/College Preparation
Kay Seither
Coordinator, Donald W. Kiser Paris Extension
Rebecca Morton
Coordinator, Montgomery Extension
Millicent Harding
Director of Enrollment Management
Billie Barbour
Interim Director of Financial Aid
Sandy Power
Director of Grant Development
Andrea Calland
Director of Human Resources
Sandi Estill
Director of Information Technology
Henry Jefferson
Director of Library Services
Sonja Eads

Faculty

Abney, Darrell H, Professor, MS, University of Evansville, 1984
Appelman, Mollie S, Professor, MBE, Morehead State University, 1981
Barnett, Kenneth, Assistant Professor, Morehead State University, 2004
Bell, William Mark, Professor, MS, University of Baltimore, 1994
Bone, Martha D, Professor, DA, Middle Tennessee State University, 1985
Boone, Debra A, Assistant 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
Callard, Dana J Taylor, Professor, EdD, Grambling State University, 2007
Callihan, Jeffrey C, Associate Professor, BS, Morehead State University, 2002
Carroll, Melissa L, Professor, MA, Morehead State University, 1999
Caudill, Greta D, Associate Professor, BSN, Morehead State University, 1995
Caudill, Michelle, Instructor, BSN, Northern Kentucky University, 2012
Clarke, Ginger, Assistant Professor, BSN, Auburn University, 1990
Click, Stanley W, Professor, BS, Morehead State University, 1990
Corbett, Nancy S, Professor, PhD, Indiana University of Pennsylvania, 1999
Curtis, Tina, Instructor, MA, Northern Kentucky University, 2009
Dickison, Jeanette C, Professor, MFA, Ohio University, 1985
Druean, Joshua W, Associate Professor, MA, Morehead State University, 2006
Eads, Sonja B, Professor/Librarian I, MLS, University of Kentucky, 1985
Flora, Charlene, Instructor, BA, University of Tennessee, 2010
Froedge, Shannon C, Associate Professor, MSN, Northern Kentucky University, 2007
Fultz, Angela, Associate Professor, PhD, University of Kentucky, 1996
Garrison, Janet L, Professor, MBA, University of Kentucky, 1992
Ginn, Cindy, Instructor, AAS, Maysville Community College, 1985
Graves, Robert L, Professor, MS, Morehead State University, 1992
Green, Amy, Instructor, BSN, Morehead State University, 2004
Hamm, Robert G, Associate Professor, BS, Morehead State University, 1985
Hauke, Barbara, Assistant Professor, MS, University of Cincinnati, 1989
Haley-Rosser, Vicky, Instructor, BSN, University of Kentucky, 1984
Hawkins, Adam, Instructor, BS, Morehead State University, 2010
Hawkins, Jack, Instructor, AAS, Maysville Community and Technical College, 2010
Hendricks, Alison, Assistant Professor, BSN, Eastern Kentucky University, 1980
Howard, Barry D, Associate Professor, AA, Morehead State University, 2007
Hunt, Darla A, Associate Professor, MSIS, Morehead State University, 2007
Hunter, Nancy D, Professor, EdS, University of Kentucky, 1999
Hunter, Noelle, Instructor, PhD, West Virginia University, 2007
Hyrcza, Alexander L, Professor, MA, Western Kentucky University, 1990
King, John E, Associate 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, MSN, University of Kentucky, 1995
Lowery, Bethany L, Associate Professor, BSN, Morehead State University, 2002
May, Elena, Instructor, MA, Novosibirsk State University, 1990
Maynard, Johnny, Assistant Professor, MS, Morehead State University, 2010
McDowell, Susan E, Associate Professor, MSN, Northern Kentucky University, 2003
Mellenkamp, Kathleen M, Professor, MA, Morehead State University, 1977
Müller, John S, Instructor, MS, University of Kentucky, 1988
Morris, Debra R, Associate Professor, BBA, Morehead State University, 1988
Morris, Melanie J, Assistant Professor, BSN, University of Kentucky, 1991
Mueaks, Martha J, Professor, MA, University of Kentucky, 1993
Napier, Jerry, Instructor, PhD, University of Kentucky, 1997
Nealis, Kimberly S, Professor, BSN, Eastern Kentucky University, 1997
Noble, Wendy, Associate Professor, MA, Morehead State University, 2009
Nolder, Deborah B, Professor, MSN, Northern Kentucky University, 2005
Parker, Edward S, Associate Professor, MS, Morehead State University, 2003
Parker, Sally, Associate Professor, BSN, College of Mt Saint Joseph on the Ohio, 1979
Pasley, Terry L, Professor, MA, Northern Kentucky University, 1998
Pecos, Nicholas, Assistant Professor, BS Morehead State University, 2005
Pemberton, Michael P, Assistant Professor, MS, University of Missouri – Columbia, 2009
Perkins, Brandin, Associate Professor, MS, Morehead State University, 2005
Redden, Carla S, Instructor/Librarian IV, MLS, University of Kentucky, 2009
Reeder, Diana L, Associate Professor, AAS, Morehead State University, 1979
Sauer, Lena P, Instructor, MA, Morehead State University, 2001
Sears, Christopher M, Associate Professor, PhD, University of Wisconsin-Milwaukee, 2007
Shaffer, Colette Lynn, Associate Professor, PhD, University of Cincinnati, 2001
Sharp, Mary J, Professor, MS, Morehead State University, 1994
Sims, Rhonda Y, Associate Professor, MSN, Walden University, 2007
Sloan-Crumbie, Donna, Associate Professor, MA, University of Kentucky, 2008
Smallwood, Sandra, Instructor, MA, Morehead State University, 1992
Swartz, Dennis Ray, Associate Professor, BS, Morehead State University, 2007
Taylor, Carrie L, Associate Professor, MA, Northern Kentucky University, 2009
Thornberry, Joan D, Associate Professor, MA, University of Kentucky, 1989
Thornberry, Tara C, Professor, MBA, Morehead State University, 1984
Vice, Marlene K, Professor, AA, Morehead State University, 2001
Walker, Melinda F, Assistant Professor, MA, Morehead State University, 2004
Wallace, Tony L, Professor, BS, Morehead State University, 2007
Walters, Jonathan, Instructor, Ashland Community and Technical College, 2011
Ward, Russell C, Professor, MA, Morehead State University, 1989
Watson, Megan, Instructor, Certified Cosmetology Instructor Salon Professional Academy, 2010
Weiss, Justin A, Assistant Professor, MS, Marshall University, 2009
Whitten, Brianna C, Assistant Professor, MA, Georgetown College, 2004
Williams, Deborah J, Assistant Professor, MSN, University of Alabama in Birmingham, 1981
Williams, James T, Instructor, DVM, University of Tennessee, 1993
Wilson, Sharon G, Professor, MS, Auburn University, 1985
Wylie, Jeff B, Professor, MA, Morehead State University, 1977

Correctional Campuses

Eastern Kentucky Branch Campus*
Cantrell, Roger Allen, Assistant Professor, Diploma, Rowan Technical College, 1990
Cloud, Chalmers 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 Technology (C, D, A)
Air Conditioning Technology (C, D)
Automotive Technology (C, D, A)
Biotechnology (A)
Broadcast Television Production (C)
Business Studies:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, A)
  - Office Systems Technology (C, A)
Collision Repair Technology (C, D)
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) Suspended as of 08/14
Criminal Justice (A)
Culinary Arts (C, D)
Diesel Technology (C, D, A)
Education (C, 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)
Horticulture (C, A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology: Electrical Technology (C, D, A)
Manufacturing Industrial Technology: Industrial Maintenance Technology (C, D)
Mechatronics (C)
Medicaid Nurse Aide (C)
Nursing (A)
Pharmacy Technology (C)
Radiography (C, A)
Surgical Technology (C, D, A)
Technical Theatre (C)
Veterinary Technology (A)
Welding Technology (C, D)

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) 686-4444
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 - Dr. James S. Klaiber, Sr.
Vice President of Academic Affairs - Scott Williams, PhD
Vice President of Business Affairs - Sarah Price
Vice President of Information Technology - James Hartz
Vice President of Student Affairs - Kevin Beardmore
Vice President of Workforce Solutions - Cynthia Fiorella
Vice President of Institutional Advancement - Larry Miller
Associate Dean of Academic Affairs - Stacy Edds-Ellis, PhD
Associate Dean of Nursing - Melissa Alstott, RN, MSN
Associate Dean of Advanced Manufacturing Technologies - Aubrey D. Autry
Associate Dean of Humanities and Fine Arts - Julia Ledford, PhD
Associate Dean of Social Sciences, Business and Public Service - Marc Malthy, PhD
Associate Dean of Personal Services and Skill Trades - Mike Rodgers
Associate Dean of Mathematics, Science, and Allied Health - Veeva Sallan, PhD
Associate Dean of Student Affairs, Registrar - Sandra A. Carden
Associate Dean of Student Affairs, Cultural Diversity - Lewatis McNeal
Director of Development - Linda G. Taylor
Director of Marketing & Communications - Bernadette Toye Hale
Director of Public Safety - Jeff Williams, Mike Rogers

Faculty

Abell, Donna, Associate Professor, MS, Florida State University, 2004
Aldschwyl, Matthew, Instructor, MA, San Diego State University, 2008
Arnold, Julia, Instructor, MS, University of Evansville, 1997
Aturry, Aubrey D., Professor, BS, Murray State University, 1984
Ash, Angela, Assistant Professor, MA, University of Louisville, 2005
Bailes, Steven R., Professor, BS, Eastern Kentucky University, 1977
Basham-Edge, Zara, Assistant Professor, Diploma, Owensboro Technical College, 2003
Boarman, Keith, Associate Professor, Murray State University, 1999
Booher, Connie, Assistant Professor, MA, Western Kentucky University, 1997
Bowser, Rosalyn, Instructor, BS, Western Kentucky University, 2007
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
Bruner, Mary, Instructor, MA, Morehead State University, 2012
Caplan, Gerald M., Associate Professor, MS, University of Illinois, 1984
Clark, Terrell, Professor, PhD, Capella University, 2012
Collins, Shannon Quinte, Associate Professor, MA, Morehead State University, 2000
Crowe, Randy Keith, Associate Professor, BS, Western Kentucky University, 1999
Curits-Abuon, Vickie L., Associate Professor, MS, Western Kentucky University, 1984
Dick, Timothy T., Professor, PhD, University of Kentucky, 2002
Dunn, Donald R., Associate Professor, MS, Murray State University, 1969
Ebelhar, Bethany, Assistant Professor, BSN, Murray State University, 2000
Ebelhar, Grace, Instructor, BSN, Tennessee State University, 1990
Edwards, Lois M., Associate Professor, MAE, Western Kentucky University, 2002
Ford, Constanze R., Professor, DME, Indiana University, 1983
Norris, Tori, Associate Professor, MA, Texas State University, 2007
Gesser, Chad, Associate Professor, MA, 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., Associate Professor, BS, Western Kentucky University, 2009
Graham, Robert L., Associate Professor, MA, Western Kentucky University, 1964
Grimes, Laura D., Associate Professor, BS, Brescia College, 1978
Hall, Teresa, Instructor, BSN, Western Kentucky University, 1997
Hamilton, Cassandra, Assistant 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
Hehn, Monty J., Assistant Professor, MFA, Southern Illinois University - Carbondale, 1988
Hildig, Amy, Associate Professor BSN, Western Kentucky University, 2007
Hildig, Frances, Instructor, AAS, Owensboro Community and Technical College, 2011
Hildiebrand, Daniel R, Associate Professor, MA, Southern Illinois University - Carbondale, 1982
Hoffman, Kathy, Assistant Professor, MS, The Catholic University of America, 1986
Hollins, Stephen F., Professor, BS, Murray State University, 1999
Hughes, Pamela, Associate Professor, BIS, Murray State University, 2010
James, Walter, Instructor, Nashville Auto-Diesel College
Johnson, Connie F., Assistant Professor, MBA, Morehead State University, 2006
Johnson, James L., Professor, MA, Western Kentucky University, 1987, M.A.
University of Kentucky, 1998
Jones, Ellen B., Associate Professor, MS, Western Kentucky University, 1976
Kobela, Peter, Associate Professor, MA, Matej Bel University, 1998
Langham, Terri H., Associate Professor, BSN, Western Kentucky University, 1996
Leach, Edward, Instructor, PhD, Auburn University
Ledford, Julia C, Professor, PhD, Southern Illinois University - Carbondale, 1987
Lutzel, John, Associate Professor/Editorian IV, MLS, University of Southern Mississippi, 2004
Malthy, Marc S, Professor, PhD, Ohio University, 1987
Martin, David C, Professor, MS, Western Kentucky University, 2007
McCray, Lauren, Instructor, MPA, Western Kentucky University
McDaniel, Traci, Associate Professor, AS, Owensboro Community & Technical College, 2010
McDonaugh, Greta J, Professor, MSSW, Western Kentucky University, 1978
McFarland, Teresa, Associate Professor, MS, Western Kentucky University, 2004
McGee, Jennifer S, Associate Professor, BSN, Western Kentucky University, 1996
Meacham, Robert, Instructor, MEng, University of Louisville
Menser, Nadine Joyce, Associate Professor, MS, Oakland City University, 2003
Miller, Clyde A, Instructor, 20 years teaching experience, 13 years occupational experience
Mills, Joseph Leon, Assistant Professor, 8 years teaching experience, 32 years occupational experience
Morris, Edward J, Professor, PhD, Southern Illinois University, 1989
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, Instructor, AS, Nashville Automotive Diesel College
Northenor, Tonya, Associate Professor, MFA, University of Memphis, 1999
Oblande, 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 & Technical College, 2007
Perkins, Micah W, Associate Professor, MS, University of Nebraska, 2001
Phillips, Janet S, Instructor, AAS, Madisonville Community College, 1993
Purdy, Cheryl A, Assistant Professor BS, Kentucky Wesleyan College, 1976
Purdy, Robert, Associate Professor, MPS, Western Kentucky University, 1983
Reed, Kimberly, Instructor, ADN, Kentucky Wesleyan College, 2000
Rice, Tammy M, Associate Professor, MA, Western Kentucky University, 1984
Rogers, Frank W, Associate Professor, MS, University of Evansville, 1991
Runyon, Carl B, Associate Professor, MA, University of Evansville, 1973
Ruth, Deborah L, Associate Professor, MA, Western Kentucky University, 1993
Sallan, Veena, Professor, PhD, University of Delhi, 1981
Schmitt, Theresa M, Associate Professor, MBA, University of Akron, 1992
Skaggs, Meredith, Assistant Professor, MA, Western Kentucky University, 2009
Sommer, Andy, Assistant Professor, BA, Oakland City University, 2006
Swanson, Susan, Associate Professor MA, Western Kentucky University, 2007
Taylor, Eunice K, Associate Professor, MSN, Southern Illinois University, 1997
Tucker, Brenda, Associate Professor, BS, Kentucky Wesleyan College, 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
Weetzel, William F, Professor, PhD, Southern Illinois University - Carbondale, 1987
Williams, Cheryl, Instructor, BS, Lipscomb University, 2008
Williams, Scott, Associate Professor, PhD, Colorado State University, 1990
Wilson, Pamela S, Associate Professor, MA, Southern Illinois University - Edwardsville, 1995
Winkler, Paul R, Assistant Professor, MS, University of Kentucky, 1976
Wood-Graesla, Vickey 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)
- Automotive Technology (C, D)
- Aviation Maintenance Technology (C, D, A)
- Business Studies:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
  - Office Systems Technology (C, D, A)
- Collision Repair 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)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Culinary Arts (C, D, A)
- Diesel Technology (C, D)
- Education (C, A)
- 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)
- Locomotive Technology (C)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D, A)
- Masonry (C, D)
- Medical Assisting (C, D)
- Medical Laboratory Technology (C, A)
- Nursing (A)
- Pharmacy Technology (C, D)
- Physical Therapist Assistant (A)
- Plumbing Technology (C, D)
- Practical Nursing (C, D)
- Respiratory Care (A)
- Surgical Technology (C, A)
- Visual Communication:
  - Design & Technology (C)
  - Multimedia (C, D)
  - 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 Angevine

Dean of Student Affairs  
Tracy Casada

Dean of Learning Support  
Bruce Gover

Dean of Arts & Sciences  
Sharon Whitehead

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 Library & Learning Resources  
Margo Hamm

Associate Dean of Mathematics & Natural Sciences  
Clint Hayes, EdD

Associate Dean of Business & Professional Services  
Lois McWhorter

Chief Operations Officer  
Larry Abbott

Chief Community, Workforce and Economic Development Officer  
David Wiles

Chief Business Affairs Officer  
Timothy Zimmerman, PhD

Director of Institutional Advancement  
Cindy Clouse

Faculty

Allen, Melinda J, Assistant Professor, MA, Eastern Kentucky University, 1993
Allen, Valerie G, Professor, MSN, University of Texas at Arlington, 1989
Angeline, 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, Johna, Professor, MA, University of Kentucky, 1988
Bales, Brandon T, Assistant Professor, MS, South Dakota State University, 2007
Ballard, Linda K, Professor, MSN, Wright State University, 1984
Barbalace, Roberta, Instructor, MS, Colorado State University, 1976
Barnes, Kelly J, Assistant Professor, MS, Eastern Kentucky University, 2006
Barnes, Virgie F, Professor, MS, California State University, Los Angeles, 1989
Beatty, Frances M, Assistant Professor, AAS, Eastern Kentucky University, 1986
Behrman, David M, Professor, MS, University of North Carolina-Chapel Hill, 1996
Blevins, JoY, Professor, DNP, University of Kentucky, 2010
Bloomington, Michael S, Assistant Professor, MA, Eastern Kentucky University, 2005
Bradford, Kevin L, Professor, MBA Wayland Baptist University, 2000
Bradley, Daniel A, Associate Professor, MA, Morehead State University, 2007
Bridgman, Pamela S, Professor, MS, Capitol College, 1999
Brock, Brandy, Assistant Professor, AAS, Laurel Technical College, 2003
Brown, Eddie, Associate Professor, AAS, Somerset Community College, 2003
Broyles, Angela W, Assistant 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, Assistant Professor, BFA, American Intercontinental University, 2009
Burton, Jacqueline, Instructor, MS, Claremont Graduate University, 2003
Byrd, Cynthia G, Instructor, MA, Eastern Kentucky University, 1986
Calcaterra, Carol L, Instructor, MBA, Eastern Kentucky University, 1993
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
Catlett, Michael Craig, Instructor, MA, Western Kentucky University, 2009
Chadwick, Clevern, Associate Professor, AAS, Somerset Community College, 2007
Childers, Margaret L, Assistant Professor, MBA, Morehead State University, 2008
Clark, Jeffrey S, Associate Professor, BSN, Eastern Kentucky University, 2000
Cleberg, Kimberly S, Associate Professor, MA, Eastern Kentucky University, 2001
Cleberg, Steven F, Professor, MFA, University of Portland, 1982
Colley, David A, Instructor, BS, Eastern Kentucky University, 2012
Conaway, Vicki L, Professor, MSN, University of Kentucky, 1984
Copenhaver, Brandi Wilson, Associate Professor, MS, Eastern Kentucky University, 2001
Copenhaver, Jerry S, Professor, BS, Eastern Kentucky University, 2005
Crabtree, Gloria L, Professor, MA, University of Kentucky, 1978
Cunningham, Gary, Associate Professor, Ed.D, Texas A&M University, 2006
Davis, James M, Assistant Professor, M.Ed, Psychology, Union College, 1996
Deaton, David A, Associate Professor, AAS, Somerset Community College, 2003
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
Deiters, Martha M, Associate Professor, MAEd, LaGrange College, 1977
Dobbins, Billy W, Associate Professor, MS, University of Kentucky, 1994
Duvall, Billie, Associate Professor, MS, Eastern Kentucky University, 2012
Eastham, Donna S, Associate Professor, MAEd, Western Kentucky University, 1994
Elam, Debra L, Assistant Professor, AAS, Somerset Community College, 2005
Flanary, Randall, Professor, BS, Eastern Kentucky University, 2011
Foster, Jamie L, Assistant Professor, MA, Eastern Kentucky University, 1990
Fries, Dennis, Instructor, MS, Eastern Kentucky University, 2003
Friedewald, Franka, 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, Assistant Professor, AAS, Somerset Community College, 2010
Gaskin, Tom P, Assistant Professor, MS, Eastern Kentucky University, 2007
Goleman, Michael J, Instructor, PhD, Mississippi State University, 2010
Graham, Gerald M, Associate Professor, AAS, Somerset Technical College, 2000
Gray, David D, Instructor, MS, Troy University, 1982
Greer, Marisa, Associate Professor, MSN, Eastern Kentucky University, 2011
Grover, Alyce A, Professor, MA, Southwest Missouri State University, 1989
Gover, Glen B, Professor, MS, Eastern Kentucky University, 2003
Hamm, Mary M, Professor, MSLS, University of Kentucky, 1992
Hammons, John S, Associate Professor, DPT, Shenandoah University, 2006
Harris, James Ricky, Instructor, AAS, Somerset Community College, 2007
Harris, Jeffrey D, Associate Professor, MA, Eastern Kentucky University, 1998
Hayes, Clinton R, Instructor, EdD, University of the Cumberlands, 2011
Hewitt, John, Instructor, BSN, Bellarmine University, 1998
Hickman, Shannon M, Assistant Professor, BA, Lincoln Memorial University, 2000
Hoskins, Jess, Associate Professor, BA, Eastern Kentucky University, 1975
House, Debra J, Professor, MS, University of Kentucky, 1994
Howe, Julie M, Instructor, MLS, University of Kentucky, 2010
Huffaker, Lorna S, Professor, MSN, Eastern Kentucky University, 2003
Huntsman, Mary Taylor, Professor/Librarian, MA/MLS, University of Kentucky, 1994
Hutchinson, Molly A, Assistant Professor, MSN, Western Kentucky University, 2012
Isham, Mark, Assistant Professor, MS, Eastern Kentucky University, 1992
Jacques, Kenneth R, Professor, MBA, Ball State University, 1987
Johnson, Kelly, Instructor, MA, Eastern Kentucky University, 2003
Karim, Md Jahurul, Associate Professor, DVM, Bangladesh Agricultural University, 1977
Kilgore, April L, Professor, PhD, University of Kentucky, 1994
Kohrmann, Elaine E, Assistant Professor, MS, University of Cincinnati, 1990
Krause, Richard, Professor, MA, University of Kansas, 1989
Krug, Emily, Instructor, MSLS, Clarion University, 2011
Larson, Irene J, Assistant Professor, MA, National University, 2010
Lawson, Shelley R, Assistant Professor, BS, Union College, 2009
Lester, Danny L, Associate Professor, AAS, Somerset Technical College, 2002
Lewis, Kathy S, Professor, MS, Eastern Kentucky University, 1994
Libbey, Darlene H, Associate Professor, MFA, University of Tennessee, 1994
Logan, Donna L, Professor, MA, Eastern Kentucky University, 1997
Loveless, Marla Jo, Assistant Professor, BS, Morehead State University, 2011
MacDonald, Vickie A, Assistant Professor, MA, Eastern Kentucky University, 1984
Mace, Ronald W, Instructor, MA, Morehead State University, 1984
Martin, Ruth S, Professor, MSN, Eastern Kentucky University, 1999
Martinez, George M, Associate Professor, MS, Murray State University, 1991
Massey, James Douglas, Associate Professor, AAS, Central Kentucky Technical College, 2001
Matika, Richard S, Associate Professor, Ed.D, University of Kentucky, 2012
McClandon, Steven S, Instructor, Ed.D, University of the Cumberlands, 2012
McFadden, Jeffrey W, Assistant Professor, MA, Eastern Kentucky University, 1999
McFeeters, James I, Associate Professor, MS, Louisiana State University, 1991
McGlothin, Megan B, Instructor, MBA, University of Phoenix, 2010
McPherson, Jason P, Professor, MS, Eastern Kentucky University, 2009
McQueen, Travis, Professor, MS, Eastern Kentucky University, 2001

39
<table>
<thead>
<tr>
<th>Name</th>
<th>Title, Degree, Institution, Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>McWhorter, Lois A</td>
<td>Professor, MBA, Eastern Kentucky University, 1988</td>
</tr>
<tr>
<td>Meade, Ronald L</td>
<td>Associate Professor, DPT, Shenandoah University, 2006</td>
</tr>
<tr>
<td>Meaders, James M</td>
<td>Associate Professor, AAS, Eastern Kentucky University, 1992</td>
</tr>
<tr>
<td>Metcalf, Virginia E</td>
<td>Associate Professor, MS, Eastern Kentucky University, 2002</td>
</tr>
<tr>
<td>Mills, Angela N</td>
<td>Instructor, BS, Northern Kentucky University, 2012</td>
</tr>
<tr>
<td>Mills, Crayton T</td>
<td>Assistant Professor, MA, Campbellsville University, 2006</td>
</tr>
<tr>
<td>Mitchell, Marcus C</td>
<td>Instructor, MS, Eastern Kentucky University, 2009</td>
</tr>
<tr>
<td>Moran, Phillip D</td>
<td>Assistant Professor, AAT, Somerset Technical College, 2002</td>
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<tr>
<td>Morris, Amanda K</td>
<td>Assistant Professor, MA, University of Kentucky, 2009</td>
</tr>
<tr>
<td>Mote, Wendy G</td>
<td>Associate Professor, MSN, Eastern Kentucky University, 2008</td>
</tr>
<tr>
<td>Muse, Dana</td>
<td>Professor, MS, University of Kentucky, 1998</td>
</tr>
<tr>
<td>Musick, Frederick D</td>
<td>Assistant Professor, MAEd, University of Virginia Charlottesville, 1982</td>
</tr>
<tr>
<td>Nazario, Eduardo</td>
<td>Instructor, AS, Sullivan University, 2005</td>
</tr>
<tr>
<td>Null, George Curtis</td>
<td>Assistant Professor, AA, Trinity Valley Community College, 1967</td>
</tr>
<tr>
<td>O’Neill, Deborah F</td>
<td>Assistant Professor, BSN, University of Phoenix, 2009</td>
</tr>
<tr>
<td>Owens, Jennifer</td>
<td>Assistant Professor, AAS, Somerset Community College, 2008</td>
</tr>
<tr>
<td>Owens, Nancy G</td>
<td>Professor, DNP, Bellarmine University, 2012</td>
</tr>
<tr>
<td>Parmley, Amy D</td>
<td>Instructor, AAS, Somerset Community College, 2001</td>
</tr>
<tr>
<td>Patton, Glenda B</td>
<td>Professor, Ed.D, University of Kentucky, 2009</td>
</tr>
<tr>
<td>Perkins, Jeffrey H</td>
<td>Professor, MA, Eastern Kentucky University, 1993</td>
</tr>
<tr>
<td>Peterson, Betty W</td>
<td>Professor, MA, University of Kentucky, 1986</td>
</tr>
<tr>
<td>Phelps, David A</td>
<td>Associate Professor, AAS, Somerset Technical College, 2000</td>
</tr>
<tr>
<td>Phelps, Devin</td>
<td>Instructor, MLS, University of Kentucky, 2011</td>
</tr>
<tr>
<td>Phillips, Christopher M</td>
<td>Professor, PhD, University of Kentucky, 2011</td>
</tr>
<tr>
<td>Pierce, Christopher A</td>
<td>Associate Professor, BS, University of Kentucky, 2003</td>
</tr>
<tr>
<td>Powell, Nancy L</td>
<td>Professor, M.A.Ed., Eastern Kentucky University, 1987</td>
</tr>
<tr>
<td>Prather, Claudette</td>
<td>Instructor, BA, Eastern Kentucky University, 1993</td>
</tr>
<tr>
<td>Price, Carol A</td>
<td>Assistant Professor, BSN, Eastern Kentucky University, 1995</td>
</tr>
<tr>
<td>Ramilo, Cecilia A</td>
<td>Associate Professor, PhD, Washington State University, 1996</td>
</tr>
<tr>
<td>Randall, Marci S</td>
<td>Assistant Professor, MS, Eastern Kentucky University, 2011</td>
</tr>
<tr>
<td>Radliff, Donna R</td>
<td>Professor, MAEd, Eastern Kentucky University, 1999</td>
</tr>
<tr>
<td>Roberts, Laura E</td>
<td>Associate Professor, BSN, Eastern Kentucky University, 1991</td>
</tr>
<tr>
<td>Routt, Patricia L</td>
<td>Assistant Professor, AAS, Somerset Community College, 1995</td>
</tr>
<tr>
<td>Ryle, Ashley D</td>
<td>Instructor, MFA, West Virginia University, 2011</td>
</tr>
<tr>
<td>Scott, Susanne</td>
<td>Professor, BS, Western Kentucky University, 1984</td>
</tr>
<tr>
<td>Scary, Michael A</td>
<td>Assistant Professor, PhD, University of Iowa, 2004</td>
</tr>
<tr>
<td>Sexton, Forrest K</td>
<td>Instructor, MS, University of Louisville, 1983</td>
</tr>
<tr>
<td>Shearer, Elizabeth</td>
<td>Professor, MA, Western Kentucky University, 1988</td>
</tr>
<tr>
<td>Shelton, Billie J</td>
<td>Associate Professor, MSN, Western Kentucky University, 2008</td>
</tr>
<tr>
<td>Sherman, Gary J</td>
<td>Professor, MS, University of Wyoming, 1979</td>
</tr>
<tr>
<td>Sherman, Loris E</td>
<td>Professor, MS, University of Wyoming, 1985</td>
</tr>
<tr>
<td>Simpson, William Stuart</td>
<td>Professor, MS, Eastern Kentucky University, 2004</td>
</tr>
<tr>
<td>Smith, Jimmy R</td>
<td>Associate Professor, AAS, Eastern Kentucky University, 1999</td>
</tr>
<tr>
<td>Spears, April J</td>
<td>Assistant Professor, MS, Eastern Kentucky University, 2008</td>
</tr>
<tr>
<td>Spencer, Robert T</td>
<td>Associate Professor, MA, Eastern Kentucky University, 1993</td>
</tr>
<tr>
<td>Spring, Deanna D</td>
<td>Instructor, MS, University of Wisconsin, 1968</td>
</tr>
<tr>
<td>Starnes, John H</td>
<td>Assistant Professor, Ph.D., University of Kentucky, 2013</td>
</tr>
<tr>
<td>Stephens, Erin</td>
<td>Assistant Professor, MA, Eastern Kentucky University, 2007</td>
</tr>
<tr>
<td>Story, Joanne</td>
<td>Professor, MA, Eastern Kentucky University, 1969</td>
</tr>
<tr>
<td>Stringer, Barbara J</td>
<td>Associate Professor, MAEd, University of Kentucky, 1961</td>
</tr>
<tr>
<td>Stringer, Gail S</td>
<td>Professor, MS, Eastern Kentucky University, 1989</td>
</tr>
<tr>
<td>Swanner, Regina K</td>
<td>Professor, BS, Eastern Kentucky University, 2007</td>
</tr>
<tr>
<td>Taylor, Gary B</td>
<td>Assistant Professor, AAS, Somerset Technical College, 2000</td>
</tr>
<tr>
<td>Taylor, Guy L</td>
<td>Instructor, BS, University of Kentucky, 1981</td>
</tr>
<tr>
<td>Taylor, James H</td>
<td>Instructor, MA, Eastern Kentucky University, 2002</td>
</tr>
<tr>
<td>Taylor, Terry A</td>
<td>Assistant Professor, MS, University of North Alabama, 2005</td>
</tr>
<tr>
<td>Thomas, Janice E</td>
<td>Instructor, MSN, Eastern Kentucky University, 2008</td>
</tr>
<tr>
<td>Tincher, James E</td>
<td>Assistant Professor, AAS, Somerset Technical College, 2000</td>
</tr>
<tr>
<td>Toby, Kimberly L</td>
<td>Assistant Professor, MS, University of Kentucky, 1998</td>
</tr>
<tr>
<td>Tomlinson, James R</td>
<td>Professor, MS, Eastern Kentucky University, 1995</td>
</tr>
<tr>
<td>Tomlinson, Nick</td>
<td>Associate Professor, MS, Eastern Kentucky University, 2006</td>
</tr>
<tr>
<td>Upchurch, Joni M</td>
<td>Assistant Professor, AAS, Somerset Community College, 2008</td>
</tr>
<tr>
<td>Vito, Gloria L</td>
<td>Associate Professor, MSN, Eastern Kentucky University, 2006</td>
</tr>
<tr>
<td>Walker, Anita E</td>
<td>Professor, MS, University of Tennessee, 1971</td>
</tr>
<tr>
<td>Ware, Lisa N</td>
<td>Assistant Professor, MA, Eastern Kentucky University, 2010</td>
</tr>
<tr>
<td>Waterstrat, Amanda J</td>
<td>Assistant Professor, PhD, University of Kentucky, 2009</td>
</tr>
<tr>
<td>Watson, Karl D</td>
<td>Associate Professor, BS, Eastern Kentucky University, 2002</td>
</tr>
<tr>
<td>Watters, Tammy R</td>
<td>Associate Professor, AAS, Somerset Community College, 2000</td>
</tr>
<tr>
<td>Webb, Karen Calvert</td>
<td>Professor, BS, Eastern Kentucky University, 1998</td>
</tr>
<tr>
<td>Webb, Richard A</td>
<td>Professor, MS, Eastern Kentucky University, 1988</td>
</tr>
<tr>
<td>Wells, Michael</td>
<td>Instructor, AAS, Ivy Tech Community College, 1996</td>
</tr>
<tr>
<td>Whitehead, Sharon F</td>
<td>Professor, MS, Stetson University, 1976</td>
</tr>
<tr>
<td>Wilson, Jennifer K</td>
<td>Professor, MSN, Eastern Kentucky University, 2000</td>
</tr>
<tr>
<td>Wooldridge, Eric N</td>
<td>Associate Professor, BS, University of Kentucky, 2001</td>
</tr>
<tr>
<td>Wright, Karen M</td>
<td>Instructor, MA, Eastern Kentucky University, 2004</td>
</tr>
<tr>
<td>Xia, Zhiming</td>
<td>Associate Professor, MS, University of Mississippi, 1999</td>
</tr>
</tbody>
</table>
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)
Automotive Technology (C, D, A)

Business Studies:
- Business Administration Systems (C, D, A)
- Medical Information Technology (C, D, A)
- Office Systems Technology (C, D, A)
- Collision Repair Technology (C, D)
- 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)
- Interactive Digital Technology (C)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D, A)
- Medical Administrative Services (C)

Nursing (A)
Practical Nursing (C, D)
Paramedic Technology (C)
Radiography (A)
Respiratory Care (C, A)
Surgical Technology (D, A)
Welding Technology (C, D)

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
Mary Ford

Business Office
1-855 246-2482
(270) 901-1033
Chris Cumens

Workforce Solutions
(270) 901-1036
Dr. Lewis Burke, Jr.

Assessment & Testing
(270) 901-1202
Elaine Yates

Disability Services
(270) 901-1094
Pam Bulle

Financial Aid
1-855-246-2482
(270) 901-1115
Rick Wilson

Human Resources
(270) 901-1116
Sherrri Forester

Institutional Advancement
(270) 901-1116
Donna Martin

Library
(270) 901-1155
Janice Gabbard
Public Relations  
(270) 901-1117  
Records  
(270) 901-1001  
Transfer Information Liaison  
(270) 901-1001  
Veterans Affairs  
(270) 901-1003  
Website  
(270) 901-1160  

Administration  

President  
Dr. Phillip Neal  
Provost  
Dr. Maggie Shelton  
Vice President of Academic Affairs  
Dr. Gerald Napoles  
Vice President of Student Affairs  
Chris Cumens  
Vice President of Business Affairs  
Dr. Lewis Burke, Jr.  
Director of Workforce Solutions  
Deans  
Alice Benham  
Arts and Humanities  
Gene Basil  
Applied Technology  
Dr. Jimmy Isenberg  
and Director, Glasgow Campus  
Kevin Kenady  
Mathematics and Sciences  
Gene Basil  
Engineering and Machine Tool Technology  
Patti Sumner  
Business  

Faculty  

Adams, Jessica L, Instructor, MS, Murray State University, 2001  
Aldridge, Emily R, Instructor, MS, University of Kentucky, 2012  
Avery, Kevin C, Assistant Professor, MA, Northern Michigan University, 2008  
Basil Jr, Eugene, Professor, MS, University of Louisville, 2006  
Bayer, Jessica, Assistant Professor, MS, Southern Illinois University, 2007  
Beagle, Gary W, Assistant Professor, MA, Western Kentucky University, 1995  
Benham, Alice A, Professor, MA, Western Kentucky University, 1978  
Bourque, Brittany, Assistant Professor, BSN, Western Kentucky University, 2005  
Bowie, Nerica H, Instructor, MBA, Middle Tennessee State University, 2004  
Bradford, Joshua, Assistant Professor, BS, Western Kentucky University, 2006  
Bronson Jr, James P, Associate Professor, BS, Madison University, 2002  
Crowley, Kandace L, Instructor, MBA, Murray State University, 2007  
Crump, Gary L, Assistant Professor, MA, Western Kentucky University, 2008  
Combs, Rex Allen, Associate Professor, BS, Western Kentucky University, 2007  
Dickerson, Angela Marie, Assistant Professor, BS, Mid-Continent University, 2007  
Dockery, Richard A, Associate Professor, BS, Western Kentucky University, 1996  
Doyle, Janel C, Associate Professor, BS, Western Kentucky University, 2005  
Faine, John B, Assistant Professor, MS, Northern Kentucky University, 2006  
Finey, Joseph Lynn, Associate Professor, MS, University of Kentucky, 2002  
Florence, Christina, M, Instructor, MA, Western Kentucky University, 2012  
Fuller, Mary M, Professor, BS, Western Kentucky University, 2000  
Gaffney, Cindy E, Associate Professor, MLS, University of Western Ontario, 2013  
Galloway, Angela M, Instructor, MS, University of Kentucky, 2005  
Gaskins, Carmen C, Professor, MS, Western Kentucky University, 1994  
Gentry, Traci, Associate Professor, MSN, Western Kentucky University, 2011  
Graves, Lauren Lane, Assistant Professor, MSN, Western Kentucky University, 2012  
Green, Michael, Assistant Professor, AA, Bowling Green Technical College, 2012  
Harlan, Angela K, Associate Professor, MSN, Western Kentucky University, 2007  
Harmon, Susan B, Associate Professor, BS, Western Kentucky University, 2002  
Hawkins, Elizabeth A, Assistant Professor, DNP, University of Kentucky, 2010  
Hatcher, Steve A, Professor, BS, Western Kentucky University, 2011  
Hook, Margaret R, Instructor, MA, Western Kentucky University, 2012  
Houchens, Charles D, Associate Professor, BS, Western Kentucky University, 2002  
Hunt, Jon D, Associate Professor, AAS, Bowling Green Technical College, 2006  
Hunt, Lisa A, Professor, MS, Austin Peay State University, 1999  
Hunt, Michelle R, Instructor, BA, Western Kentucky University, 1989  
Janes, Brian M, Assistant Professor, MS, Murray State University, 2003  
Jeter, Christopher N, Instructor, BIS, Western Kentucky University, 2009  
Karim, Mana, Assistant Professor, MS, Western Kentucky University, 2003  
Kennedy, Barry A, Associate Professor, MA, Western Kentucky University, 2003  
Lindsey, John L, Associate Professor, BS, ITT Technical Institute – Indianapolis, 1993  
MacGregor, Wayne R, Assistant Professor, MSN, Western Kentucky University, 2012  
Martin, Kenyetta Valeda, Assistant Professor, MBA, Western Kentucky University, 2012  
McKenney, Ken D, Assistant Professor, AAS, Bowling Green Technical College, 2010  
Moorman, John K, Assistant Professor, BS, Western Kentucky University, 1977  
Murphy, Terrell W, Associate Professor, AS, Western Kentucky University, 1993  
Norrod, Amy Paige, Instructor, BS, Mid-Continint University, 2008  
Ott, Kimberly D, Assistant Professor, MA, Western Kentucky University, 2007  
Papalouca, Loucas, Associate Professor, MS, Western Kentucky University, 1989  
Patel, Virendra Kumar Anikumar, Assistant Professor, MA, Eastern Kentucky University, 2010  
Paver, Tracy S, Assistant Professor, MA, Pensacola Christian College, 2008  
Pennycuff, Donald B, Assistant Professor, MS, Western Kentucky University, 2007  
Phelps, Jeffery W, Associate Professor, BS, Western Kentucky University, 2000  
Potter, William R, Assistant Professor, BS, Western Kentucky University, 2003  
Pringle, Brian T, Instructor, BS, University of Central Florida, 1999  
Prollitt, Jessica, F, Instructor, BSN, Western Kentucky University, 2012  
Riggs, Michael W, Professor, Ed.D, University of Louisville, 2009  
Royse, Christopher L, Instructor, BS, Murray State University, 2004  
Sandefur, Ryan P, Associate Professor, MS, Western Kentucky University, 2004  
Scott, Eugenia R, Associate Professor, MA, Western Kentucky University, 1998  
Schulstrom, Christine A, MA, University of Kansas, 2002  
Shive, April, Associate Professor, MSN, Western Kentucky University, 2011  
Shoemake, Jennifer J, Associate Professor, MSN, Western Kentucky University, 2005  
Slaughter, Lori A, Professor, MA, Western Kentucky University, 2010  
Smith, Gordon Partridge, Assistant Professor, Ph.D, University of Mississippi, 2000  
Sparks, Richard B, Associate Professor, BS, University of Kentucky, 2003  
Stagner, Phillip W, Instructor, MA, 2004, Webster University, 2004  
Stephens, Jeremy, D, Instructor, AAS, Bowling Green Technical College, 2010  
Sumner, Patti S, Professor, MA, Western Kentucky University, 1988  
Tackett, Kristina, Assistant Professor, MS, Western Kentucky University, 2009  
Taylor, Maria A, Instructor, MA, University of Louisville, 2007  
Taylor, Michael O, Professor, BA, Western Kentucky University, 1972  
Taylor, Myria, D, Instructor, MBA, Chamberlain College of Nursing, 2013  
Turner, Kerry S, Associate Professor, AAS, Bowling Green Technical College, 2008  
Waggoner, Constance J, Assistant Professor, MS, Capella University, 2009  
Ward, Teresa Y, Instructor, MS, Troy University, 1983  
Wells, Sherry Lynn, Associate Professor, AAS, Bowling Green Technical College, 2004  
Wendt, Leah D, Instructor, MA, California State Polytechnic University, 2008  
White, Renee, Instructor, Ph.D, University of Louisville, 2003  
Williams, Thomas W, Assistant Professor, MA, Western Kentucky University, 2007  
Wilkins, Diane A, Associate Professor, MA, University of Kentucky, 1999
Southeast Kentucky Community and Technical College

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)
Automotive Technology (C, D)
Business Studies:
  Business Administration Systems (C, A)
  Medical Information Technology (C, D)
  Office Systems Technology (C)
Collision Repair Technology (C, D)
Computer Aided Drafting and Design (C, D)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D)

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 23E
Pineville, KY 40977
(606) 337-3106

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

Admissions: Veria Baldwin (606) 589-3018
Business Affairs: Angela Simpson 1-855-2GO-SKCTC (1-855-246-7528)
Workforce Solutions: Vic Adams (606) 248-0416
Disability Services: Veria Baldwin (606) 589-3018
Financial Aid: Barbara Gent (606) 1-855-2GO-SKCTC (1-855-246-7528)
Human Resources: Billie Franks (606) 589-3029
Library: Warren Gray (606) 589-3070
Public Relations: Chris Jones (606) 589-3003
Registration/Records: Anita Barnhill (606) 589-3017
Transfer Information Liaison: Georgia Billings (606) 248-0853
Veterans Affairs: Kim Hobbs (606) 248-0145
Website: southeast.kctcs.edu

Administration

President: Dr. F. Lynn Moore
Chief Academic Affairs Officer: Dr. Wheeler Conover
Interim Chief Business Affairs Officer: Tom Pope
Chief Student Affairs Officer: Dr. Rebecca Parrott
Chief Operations Officer: Larry Warf
Chief Community/Workforce Econ. Dev. Officer: Dr. Vic Adams
Chief Information Tech Officer: Merrill Galloway
Chief Cultural Diversity Officer: Carolyn Sundy
Chief Development Officer: Susan Caldwell
Director of Public Relations: Chris Jones
Division of Industrial Technology: Ronnie Daniels
Division of Arts & Humanities: Ann Maciula
Division of Natural Sciences and Mathematics: Rhona L. Creech
Division of Social & Behavioral Sciences: Kevin Lambert
Division of Nursing and Related Technologies: H. Kathy Guy
Division of Allied Health and Related Technologies: Michael S. Good

Faculty

Ahlstedt, Lisa A, Librarian I, MS, University of Tennessee, 1995
Bargo, Glenn, Associate Professor, MSN, Eastern Kentucky University, 2008
Blanton, Scott, Associate Professor, MSN, Northern Kentucky University, 2011
Bowling, Kenneth N, Associate 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, Instructor, BSN, Eastern Kentucky University, 2007
Buell Jr, Elijah, Professor, MBA, Morehead State University, 1980
Burnside, Patricia, Professor, MAEd, Tusculum College, 2007
Call, Richard, Professor, MS, Ohio University, 1985
Carmack, Michael E, Associate 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, Instructor, BS, University of Kentucky, 2011
Clutts, David W, Professor, Ed.D, Liberty University, 2010
Collier, William G, Professor, MA, Eastern Kentucky University, 1992
Conklin, Peggy, Associate Professor, MA, Morehead State University, 1985
Conover, Edwin, Associate Professor, PhD, Cincinnati, 1996
Corrison, Michael S, Professor, MA, Stephen Austin State University, 1967
Cox, Donna, Associate Professor, MA, Union College, 1973
Cox, Lynn, Professor/Librarian I, MS, University of Kentucky, 1994
Cox, Robert S, Professor, MA, Marshall University, 1985
Creed, Rhona, Associate Professor, MA, Morehead State University, 2003
Creech, Rhonda L, Professor, MA, Morehead State University, 1996
Cuellar, Ramon, Assistant Professor, MS, University of Iowa, 2005
Daniels, Ronnie W, Professor, BS, Eastern Kentucky University, 2000
Dingus, Ariel, Instructor, MA, Middle Tennessee State University, 2012
Dixon, Jill Suzanne, Associate Professor, DPT, University of Kentucky, 2011
Dykes-Anderson, Michelle R, Associate Professor, EdD, University of Kentucky, 2011
Eldahan, Ismail A, Associate Professor, MS, American Sentinel University, 2008
Engle, Tina, Instructor, BSN, Chamberlain College of Nursing, 2011
Epling, Michael, Professor, MBA, Morehead State University, 1995
Fleming, April, RN, Instructor, ADN, Southeast Kentucky Community and Technical College, 2010
Forbes, Zelma M, Professor, MS, Ohio University, 1983
Gibson, Dwayne, Assistant Professor, MBA, Eastern Kentucky University, 1999
Gipe, Robert H, Professor, MA, University of Massachusetts, 1988
Good, Michael S, Professor, MS, Eastern Kentucky University, 2001
Gordon, Sheila, Professor, MSW, University of Kentucky, 1995
Gray, Warren F, Librarian I, MLS, University of Texas at Austin, 1993
Greene, Steven T, Associate Professor, AS, Southeast Kentucky Community and Technical College, 2008
Greer-Pitt, Sue, Professor, PhD, University of Kentucky, 1984
Guy, Hazel K, Professor, MSN, Bellarmine University, 1989
Halcomb Jr, Astor, Professor, BUD, Morehead State University, 1992
Harper, Jane C, Associate Professor, BSN, Eastern Kentucky University, 2004
Helton, Melissa, Assistant Professor, MFA, Bowling Green State University, 2006
Hendley, Evelyn M, Librarian III, MS University of Kentucky, 2006
Hollbrook, 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
Hughes, Eva, Assistant Professor, MSN, Indiana Wesleyan University, 2013
Hutson, Joseph P, Associate Professor, MS, Eastern Kentucky University, 2004
Jackson, Terri, Instructor, BSN, University of Kentucky, 2003
Johnson, Joseph, Assistant Professor, PhD, Clemson University, 2010
Johnson, Lori, Associate Professor, AA, Southeast Kentucky Community and Technical College
Jones, Lynn Y, Professor, MA, Eastern Kentucky University, 1983
Kidwell, David T, Professor, PhD, University of Kentucky, 1993
Kurtz, Loucretia, Instructor, MAT, Morehead State University, 2012
LaFollette, Larry, Librarian II, MLS, Florida State University, 1994
Lambert, Kevin, Professor, MS, University of Tennessee, 1994
Lane, Kenneth, Instructor, BS, Eastern Kentucky University, 1988
Lawson, Rebecca L, CST, BA, Assistant Professor, Ashford University 2007
Maciula, Terry A, Professor, MA, Oklahoma State University, 1991
Marcum, Joseph S, Professor, MA, University of Tennessee, 1980
Mason, Verna, Instructor, MS, Eastern Kentucky University, 2010
Mayes, Caroline, Instructor, 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
Mullins, Jennifer, Instructor, MA, Union College, 2002
Murphy, Kevin, Professor/Librarian I, MLS, University of Kentucky, 1995
Newman, Kathy, Assistant Professor, M.Ed, Lindsey Wilson College, 2004
Noe, Roger, Professor, Ed.D, University of Kentucky, 1990
Omar, Saeed, Associate Professor, PhD, Mississippi State University, 1987
Pennington, Joy, Assistant Professor, MSN, Chamberlain College of Nursing, 2013
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, Elana, Assistant Professor, MS, Eastern Kentucky University, 2003
Scopa Jr, Joseph A, Professor, MFA, Pennsylvania State University, 1976
Sexton, Karla, AAS, Southeast Community College 1981
Shumate, Denise R, M.E., Rank 1+, Lincoln Memorial University, 1989
Silver, Roy, Professor, PhD, University of Toledo, 1982
Simpson, Amelia, Associate Professor, MA, University of Southern Mississippi, 1993
Simpson, Astor, Professor, MAEd, Union College, 1982
Singh, Rajiv, Instructor, MS, University of North Dakota, 2012
Smith, Marshall, Instructor, AAS, Southeast Kentucky Community and Technical College, 2011
Steenbergen, Gary L, Professor, MS, Eastern Kentucky University, 1996
Stewart, Jenny, Instructor, BS, University of Kentucky, 1982
Sundy, Carolyn M, Professor, MSEd, University of Kentucky, 2008
Turner, Mary Leann, Associate Professor, BS, Eastern Kentucky University, 1994
Vaughn, Jamie, Professor, MBA, University of Kentucky, 1981
Webb, Danny, Associate Professor, MA, Eastern Kentucky University, 1994
Webb, Shelda, Assistant Professor, MAEd, Morehead State University, 1981
Whitla, Paula, Instructor, MSN, University of Louisville, 2007
Williamson, Susan P, Associate Professor, MA, University of Louisville, 2011
Wilson, Odell D, Professor, EdD, East Tennessee State University, 1987
Wright, Wendy, Instructor, BS, Eastern Kentucky University, 2010
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.
- Associated 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.

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.

Advanced Nursing Assistant (C)
Air Conditioning Technology (C, D)
Applied Engineering Technology (C, A)
Apprenticeship Studies (A)
Automotive Technology (C, D, A)
Business Studies:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
  - Office Systems Technology (C)
Collision Repair Technology (C, D)
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, A)
Dental Assisting/Dental Hygiene (D)
Diesel Technology (C, D)
Diagnostic Medical Sonography (C, 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, A)
Health Science Technology (A)
Historic Preservation Technology (C)
Homeland Security/Emergency Management (C, A)
Industrial Chemical Technology (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)
Natural Gas Technology (C)
Nursing (A)
Pharmacy Technology (C)
Physical Therapist Assistant (A)
Practical Nursing (C, D)
Radiography (A)
Respiratory Care (C, A)
Surgical Technology (C, D, A)
Visual Communication:
  - Design & Technology (C)
  - Multimedia (C, D, A)
  - Printing (C)
Welding Technology (C, D)
Workplace Essentials (C)
### Contact Information

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

**Dean of Business and Computer Related Technologies Division**  
Tammy Potter

**Dean of Humanities, Fine Arts and Social Sciences Division**  
Sharla Hutchinson

**Dean of Nursing Division**  
Shari Gholson

**Dean of Paducah School of Art and Design Division**  
Paul Aho

**Dean of Transition Education Division**  
Maria Flynn

**Dean of Science and Mathematics Division**  
Dr. Karen Hlinka

### General Information

| Accessible College Education | (270) 534-3476 |
| Admissions/Records | (270) 534-3264 |
| Advising Center | (270) 534-3408 |
| Assessment Center – Student Services | (270) 534-3407 |
| Bookstore (Anderson Technical Building) | (270) 534-3247 |
| Business Office | 1-855-GO-WKCTC (1-855-469-5282) |
| 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 |
| COMPASS Assessment Center – Student Services | (270) 534-3407 |
| Disability Services | (270) 534-3406 |
| Financial Aid | 1-855-GO-WKCTC (1-855-469-5282) |
| GED Testing Center | (270) 534-3413 |
| General Information | (270) 554-9200 |
| Human Resources | (270) 534-3078 |
| Library | (270) 534-3197 |
| Murray Practical Nursing Program | (270) 753-1231 |
| Paducah School of Art | (270) 408-4278 |
| Public Relations | (270) 534-3083 |
| Purchase Training Center (Mayfield) | (270) 247-9633 |
| Security | (270) 554-6300 |
| Skilled Craft Training Center (Mayfield) | (270) 856-2400 |
| Skills Enhancement Center (Adult Education/GED) | (270) 534-3451 |
| Student Support Services (TRIO) | (270) 534-3180 |
| Weak's Center (Nursing program, Murray) | (270) 753-1231 |
| Workforce Solutions Assessments | (270) 534-3415 or (270) 534-3490 |
| Transfer Advising Center | (270) 534-3187 |
| Thompson Health Education Center | (270) 444-8486 |
| University of Kentucky College of Engineering | (270) 534-3110 |
| Veterans Affairs | (270) 534-3861 |
| Website | westkentucky.kctcs.edu

### Administration

| President/CEO | Dr. Barbara Veaey
| Dr. Tena Payne
| Sherry Anderson |
| Vice President of Academic Affairs | Jim Pape
| Dr. Belinda Dalton-Russell
| Susan Graves
| John Carrico |
| Dr. Steve Freeman |
| Kay Travis |
| Bridget Canter |
| Jipauw Askew Robinson |
| Janett Blythe |
| Gail Robinson Butler |
| Samantha Williams |
| Dr. Teresa Mayo |
| Dr. Renea Akin |
| Connie Heflin |
| Peggy Block |
| Stephanie Milliken |

### Faculty

| Adkins, Rhonda J, Professor, MA, Murray State University, 1985 |
| Aho, Paul R, Instructor, MFA, University of South Florida, 1979 |
| Akin, Selena R, Professor, EdD, Vanderbilt University, 2010 |
| Akojie, Felix O, Professor, PhD, University of IFE, Nigeria, 1985 |
| Arnold, Jimmy Dale, Associate Professor, BS, Murray State University, 1998 |
| Armstrong, Sherri D, Professor, MA, Murray State University, 1995 |
| Beardsley, Christopher C, Instructor, BS, Murray State University, 1993 |
| Bigham, Larry D, Professor, MS, Southern Illinois University at Carbondale, 1985 |
| Blaine, Patricia A, Professor, MA, Fort Hays State University, 1981 |
| Block, Peggy R, Professor, MHS, University of Indianapolis, 1996 |
| Bradshaw, Kenneth A, Professor/Librarian I, MLS, University of Kentucky, 1981 |
| Brown, Rebecca H, Instructor, PhD, Virginia Tech, 2009 |
| Buchanan, Patricia A, Associate Professor, BS, Murray State University, 2008 |
| Carrell, Charles S, Instructor, MS, California Polytechnic State University, 2009 |
| Caldwell, Paul H, Instructor, AS, Murray State University, 2009 |
| Carrico, Mary C, Associate Professor, MS, Southern Illinois University at Carbondale, 1991 |
| Cates, Joel D, Instructor, MS, Murray State University, 2011 |
| Chastain, Brendon K, Instructor, PhD, University of Arkansas, 2010 |
| Coltharp, Heather L, Associate Professor, MSE, University of Kentucky, 1999 |
| Cooper, Donald K, Associate Professor, AS, Murray State University, 1997 |
| Cornwell, Tya F, Instructor, MA, Murray State University, 2001 |
| Curtisinger, Jr, Thomas A, Instructor, MS, Murray State University, 1987 |
| Day, Jamie A, Instructor, AAS, Paducah Community College, 1997 |
| Dickerson, Craig T, Associate Professor, AAS, West Kentucky Technical College, 2008 |
| Donner, Jason W, Instructor, MA, Murray State University, 1995 |
| Dotson, Megan E, Instructor, MAE, Murray State University, 2010 |
| Downs, Donna J, Professor, MSN, University of Evansville, 1984 |
| Drafien, Carla K, Professor, MBA, Murray State University, 1987 |
| Driver, Tommy E, Assistant Professor, AAS, West Kentucky Community and Technical College, 2006 |
| Durbin, Laura R, Assistant Professor, BSN, University of Kentucky, 1998 |
| Durham, Elizabeth A, Instructor, MA, Nazareth College, 1988 |
| Ewing, Cheryl L, Instructor, BSN, Henderson State University, 1982 |
| Fletcher, Patrick A, Assistant Professor, BBA, University of Kentucky, 2001 |
| Flynn, Maria K, Associate Professor, MA, Murray State University, 1985 |
| Frank, Constance W, Professor, MA, Murray State University, 1991 |
| Franklin, David M, Associate Professor, MS, Murray State University, 1976 |
| Gar, Joseph Doo, Professor, EdD, Murray State University, 2010 |
| Garrett, Thomas C, Scott, Professor, PhD, Southern Illinois University, 1990 |
| Gercke, Kevin L, Professor, PhD, Virginia Polytechnic Institute, 1993 |
| Gholson, Shari D, Professor, MSN, Vanderbilt University, 1997 |
| Goodaker, Gary W, Professor, MS, University of Illinois at Urbana Champaign, 1997 |
| Graham, Misty D, Instructor, BA, University of Tennessee, 2005 |
| Gunn, Robert G, Instructor, BA, University of Alaska Fairbanks, 1981 |
| Harper, Gary W, Instructor, MSN, Chamberlain College of Nursing, 2011 |
| Harper, Shawn, Associate Professor, MS, Murray State University, 1990 |
| Hasegawa, John S, Assistant Professor, MFA, University of Oregon, 2000 |
| Hearn, Steven B, Instructor, AAS, West Kentucky Community and Technical College, 2012 |
| Hefflin, Connie S, Professor, MS, University of Evansville, 1983 |
| Hefflin, David J, Assistant Professor, MS, Murray State University, 2010 |
| Hely, Sueann Wade, Professor, MBA, Murray State University, 1990 |
| Henry, Gretta G, Instructor, MS, Murray State University, 2000 |
| Hibbs, Dennis F, Professor, MS, Murray State University, 2001 |
| Hlinka, Karen F, Professor, EdD, University of Kentucky, 2012 |
| Holland, Virgil T, Assistant Professor, AS, Murray State University, 2012 |
| Holler, Patricia A, Associate Professor, MA, Murray State University, 1990 |
| Holt, Stephen W, Assistant Professor, BS, Murray State University, 2006 |
| Hopper, Carrie, Instructor, MS, Murray State University, 2008 |

### Personal Services Division

Peggy Block
Housholder, Paul D, Associate Professor, AS, Murray State University, 2001
Hudson, Rocky L, Instructor, BS, University of Kentucky, 1988
Hutchinson, Sharla E, Professor, MA, Western Kentucky University, 1980
Isenberg, Paula R, Instructor, MSN, University of Southern Indiana, 2010
Johnson, Jonathan B, Instructor, MS, Bellevue University, 2012
Johnson, Karen H, Instructor, EdD, Trevecca Nazarene University, 2012
Johnson, Margaret F, Assistant Professor, MSN, University of Phoenix, May 2011
Jones, Latoya A, Assistant Professor, DC, Life University, 2001
Jordan, Tracy L, Associate Professor, MA, Murray State University, 1986
Knapp, Jo A, Professor, MA, Murray State University, 1990
Knoth, Marilyn B, Professor, MSN, University of Evansville, 1984
Koehler, Vicki A, Professor, Murray State University, 1991
Lee, Bobby A, Professor, MS, Murray State University, 1995
Liao, BiLan, Assistant Professor, MFA, Kendall College of Art and Design, 2008
Liu, Sarah S, Associate Professor, PhD, Old Dominion University, 2006
Mahoney, Joseph D, Professor, MA, Murray State University, 1990
Martin, Patricia A, Associate Professor, MSN, Murray State University, 2000
Mayo, Teresa, Professor, EdD, University of Kentucky, 2012
McDanel, Tracy L, Associate Professor, BS, Murray State University, 2009
McGullion, Allison S, Assistant Professor, MS, University of Colorado at Denver, 1998
McMullen, DeAnn J, Professor, MEd, Memphis State University, 1989
Miller, Jennifer D, Professor, MS, Murray State University, 2009
Miller, Rhonda G, Assistant Professor, BSN, Murray State University, 1988
Milliken, Stephanie K, Professor, MS, Murray State University, 1996
Monroe, Frances J, Professor, MACT, Murray State University, 1977
Moore, John C, Associate Professor, MS, Murray State University, 2007
Morgan, Tiffinee S, Professor, MS, Murray State University, 1984
Mullins, Benjamin D, Associate Professor, BS, Murray State University, 2000
Nedrow, Valerie J, Professor, MS, Murray State University, 1989
Nickell, David L, Associate Professor, MA, Western Kentucky University, 1982
Norwood-McGregor, Vanessa A, Assistant Professor, BSN, Murray State University, 2003
Oklerson, Robert N, Professor, BS, Murray State University, 1987
Owen, Tammy R, Associate Professor, EdD, University of Phoenix, 2008
Page, Leslie R, Instructor, MS, Murray State University, 2003
Payne, Tena B, Professor, EdD, University of Kentucky, 2001
Perry, Carolyn K, Associate Professor, MBA, Thunderbird School of Global Management, 1980
Perry, Edward D, Associate Professor, BS, Murray State University, 2001
Peterson, Miranda D, Instructor, MSN, University of Southern Indiana, 2008
Petitt, Christy L, Assistant Professor, MSN, University of Southern Indiana, 2007
Potts, Tammy F, Professor, MAEd, Murray State University, 1993
Pruitt, Douglas L, Associate Professor, PhD, Bowling Green State University, 2000
Quimby, Beverly F, Associate Professor, BS, Mid-Continent University, 2007
Ragsdale, Tina I, Instructor, MS, Southern Illinois University at Carbondale, 2008
Reese, Gary L, Assistant Professor, MPA, Murray State University, 1987
Robertson, Alice R, Professor, BS, Murray State University, 1996
Roof, Sally, Professor, MS, Murray State University, 2002
Russell, Kimberly G, Associate Professor, MA, Southeast Missouri State University, 2000
Scott, Andrew J, Instructor, MBA, Quincy University, 2008
Senn, Catherine E, Professor, MS, Johns Hopkins University, 1995
Shurley, Britton M, Assistant Professor, MFA, Indiana University, 2007
Simmons, Randall R, Associate Professor, MFA, University of Cincinnati, 1995
Smith, Deborah S, Professor, MS, Murray State University, 2008
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
Swain, Deborah J, Associate Professor, BS, Murray State University, 2008
Tavers, Victor M, Instructor, PhD, Pennsylvania State University, 2009
Taylor, Jason D, Professor, MS, Murray State University, 2000
Taylor, Susan D, Professor, MSN, University of Evansville, 1988
Teague, Sanci E, Instructor, MA, Murray State University, 2009
Thomason, Wanda K, Associate Professor, MS, Murray State University, 2004
Thompson, Julie E, Assistant Professor, MAT, Murray State University, 1999
Thompson, Valerie V, Associate Professor, MS, Murray State University, 2007
Toon, Nichole M, Associate Professor, BS, Murray State University, 2009
Tucker, Sandra B, Associate Professor, MAE, Western Kentucky University, 1984
Turner, Nancy K, Professor, MSN, University of Evansville, 1982
Vallery, Deborah L, Instructor, BSN, Murray State University, 2007
Vos, John D, Professor, MBA, Murray State University, 1989
Wadlington, Corey M, Associate Professor, MAE, Austin Peay State University, 1999
Washam, Freddie G, Associate Professor, AAS, West Kentucky Technical College, 2003
Watkins, Gerald L, Professor, MBA, Murray State University, 1984
Watkins, Kelly J, Instructor, BSN, Western Kentucky University, 1984
Westfield, Mark A, Assistant 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
Wurzler, Norman F, Professor, MM, University of Cincinnati, 1985
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 contact the college admissions office to confirm the process 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 (GED), who are eligible to pursue a GED, or who are dually enrolled in high school and the college.

Admission and Registration Procedures

- Prospective students should contact the admission office of the college they wish to attend and request an admission application or visit the college’s website to complete an online 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.
- Applicants under age 25 entering a college for the first time will be required to send an official copy of their high school transcript or GED to the admission office of the college they plan to attend for specific program requirements.
- 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) or Scholastic Aptitude Test® (SAT). Applicants who have not taken the ACT® must complete the COMPASS® or ASSET® 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 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 credentials 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 prerequisites 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® and/or ASSET® or COMPASS® 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 an accredited 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. A transient or visiting student must submit a form completed by the student’s home college indicating that the student is eligible to enroll in that 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 work 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 KCTCS colleges for the purpose of earning credit applicable toward an educational credential – certificate*, diploma, or associate degree – must demonstrate through the submission of scores on specified assessment instruments that they possess the minimum academic skills essential for success. Students who do not have the appropriate test scores in a given area must successfully complete transitional education courses before enrolling in entry-level courses for that subject area. Students requiring transitional education will be placed in the appropriate course(s) during the first two terms of enrollment. Enrollment in required transitional education courses shall continue consecutively until the sequence is completed. Students will be advised to enroll in the first college level course in the appropriate subject as soon as the transitional education sequence is complete.

This assessment and placement policy specifically applies to:

- Students who will enroll in a KCTCS college for the first time for the purpose of earning an educational credential. This includes students who intend to transfer to a university and students who are undecided on a program of study.
- Students who transfer from a non-KCTCS institution and who have not demonstrated academic skills appropriate for the educational credential they seek either through assessment results or successful completion of relevant entry-level courses.
- Students who decide to earn an educational credential subsequent to their enrollment as a non-credential seeking student and who have not demonstrated the academic skills appropriate for the educational credential they seek.

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 or18 in writing allows the student to enroll in entry-level courses for those areas. A student who scores less than 19 in mathematics, less than a 20 in reading or less than an 18 in writing is required to take an additional test and will be placed into classes according to her/his score on the second test.

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 Algebra Domain</th>
<th>ASSET</th>
<th>KYOTE(^3)</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>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>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 and MP 27 or higher</td>
<td>MAT 150 with MAT 100 or supplemental instruction(^1); MAT 146, MAT 105; MAT 110; MAT 116; MAT 126 or any course listed below</td>
</tr>
<tr>
<td>31-35</td>
<td></td>
<td></td>
<td>El. Alg. 39-40, Int. Alg. 36-38</td>
<td>CA 7-13 or MP 21-or higher</td>
<td>Intermediate Algebra or any course numbered MAT 105 through MAT 126(^2) with supplemental instruction(^3) or any course listed below</td>
</tr>
<tr>
<td>25-35</td>
<td></td>
<td></td>
<td>El. Alg. 34-40, Int. Alg. 33-38</td>
<td>CA 5-13</td>
<td>All courses numbered MAT 105 through MAT 116(^2) with supplemental instruction(^3) or any course listed below</td>
</tr>
<tr>
<td>16-30</td>
<td></td>
<td></td>
<td>El. Alg. 27-38, Int. Alg. 26-35</td>
<td>MT 055 = MP 0-11, MT 065 = CA 0-6 or MP 12-20</td>
<td>MAT 065 provided that, IF there is a concurrent pre-algebra score, it is between 42-99; or any course listed below</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPASS Pre-algebra Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>42-99</td>
</tr>
<tr>
<td>24-41</td>
</tr>
<tr>
<td>Less than 24</td>
</tr>
</tbody>
</table>

\(^1\) MAT 100 offers supplementary academic support for MAT 150.

\(^2\) MAT 105, MAT 110, MAT 116 do not serve as prerequisites for intermediate algebra.

\(^3\) The KYOTE College Algebra Placement Test (CA) is administered after the (Transitional) Mathematics Placement Test (MP) if the MP score is 27 or higher.

\(^4\) 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.

NOTE: Colleges may seek approval from the Chancellor for use of alternate assessment instruments.
### Reading Assessment and Course Placement

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 20 or higher</td>
<td>470 Critical Reading</td>
<td>COMPASS 85-100</td>
<td>ASSET 44-55</td>
<td>20 or higher</td>
<td>No reading required</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COMPASS 83-84</td>
<td>ASSET 43</td>
<td></td>
<td>Entry-level courses with concurrent enrollment in CMS 185, or supplemental instruction1, 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COMPASS 70-82</td>
<td>ASSET 38-42</td>
<td></td>
<td>RDG 0302 or DRE 030 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COMPASS 49-69</td>
<td>ASSET 32-37</td>
<td></td>
<td>RDG 020</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COMPASS 48 and below</td>
<td>No score available</td>
<td></td>
<td>Refer to Adult Basic Education for Reading</td>
</tr>
</tbody>
</table>

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

2 After the completion of this option students can move to entry level courses without additional supplemental instruction.

NOTE: Transfer 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.

### English Assessment and Course Placement

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 or above</td>
<td>Writing 430 or Critical Reading 450</td>
<td>COMPASS 74 -100</td>
<td>ASSET 43-55</td>
<td>6 or higher</td>
<td>ENG 101</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COMPASS 39-73</td>
<td>ASSET 38-42</td>
<td></td>
<td>ENC 091</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COMPASS 26-38</td>
<td>ASSET 33-37</td>
<td></td>
<td>ENC 090 or ARI 010</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COMPASS 25 and below</td>
<td>No score available</td>
<td></td>
<td>Refer to Adult Basic Education for English</td>
</tr>
</tbody>
</table>

Note: Students may be advised to enroll in ENC 092 (Writing Laboratory), or ENG 100, or supplemental work defined by the college concurrent with their enrollment in ENG 101 if they have completed ENC 091 and need the assistance provided by the writing laboratory. Supplemental instruction includes extra class sessions, additional labs, tutoring, and increased monitoring of students beyond that usually associated with an entry-level course.
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. For provisions for partial or deferred payment instructions, see the payment plan options in the 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 as per the “Refunds” section below. Charges for services are non-refundable unless specifically stated as refundable. Consult with your college business office for specifics. The tuition charges for the 2013-2014 academic year were not available at the time of publication. Tuition charges will be published at www.kctcs.edu as soon as they are available.

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 charge 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 Registration Only</td>
</tr>
<tr>
<td>Option 2</td>
<td>*</td>
<td>25%</td>
<td>3</td>
<td>Through Advance Registration</td>
</tr>
<tr>
<td>Option 3</td>
<td>*</td>
<td>50%</td>
<td>2</td>
<td>Through Regular Registration</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.
Last Day to Enter an Organized Class

The last day to enter (add) an organized class (including Saturdays and Sundays, but excluding KCTCS recognized holidays) is as follows:

- 16-week Session - by the close of business of the 7th calendar day of the session.
- 8-week Session - by the close of business of the 4th calendar day of the session.
- 6-week Session - by the close of business of the 3rd calendar day of the session.
- 5-week Session – by the close of business of the 2nd calendar day of the session.
- 4-week Session - by the close of business of the 1st calendar day of the session.

Irregular Session - prorated according to the length of the session in proportion to the traditional 16-week session.

Please check your local college course schedule and/or with your local college registrar for specific questions concerning the last day to enter (add) an organized class and session-specific Add/Drop dates.

Students cancelled for non-payment after the last day to enter an organized class may not be reinstated for that session. If in an acute extenuating circumstance a student cancelled for non-payment is re-enrolled, a charge per the “Schedule of Allowable Charges” must be assessed for that session. All tuition and charges must be satisfied at the time of reinstatement.

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 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 Higher One, a financial services company focused solely on higher education, to process student refund payments. Students are required to choose from one of the following three options for receiving any refunds due them: 1) ACH transfer to a bank account of their choice, 2) Paper check mailed to the student address on file, 3) Refund to a OneAccount, an FDIC insured checking account offered by Higher One. For additional information, please visit www.KCTCSDebitCard.com.

<table>
<thead>
<tr>
<th>Session</th>
<th>100 percent</th>
<th>50 percent</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>

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

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.

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.

KCTCS Online Learn On Demand Courses

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. To receive a 100 percent tuition refund, a student must officially withdraw prior to the first day of class. No refund will be given once a KCTCS Online Learn on Demand course has started. Charges for services are non-refundable unless specifically stated as refundable. Students who drop on the first day of class or thereafter remain liable for the tuition assessed per the guidelines set forth in the Learning Contract of the KCTCS Online Learn of Demand for which they have registered.

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.
**Financial Aid**

### Overview

The colleges of the Kentucky Community and Technical College System (KCTCS) offer a complement of student financial aid, 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 a FAFSA and a high school diploma or a General Education Development (GED) Certificate. If you are admitted “conditionally,” you may receive student aid for one semester only before your admission file must be complete.

You can apply for student aid electronically by using the U.S. Department of Education’s Web site, www.fafsa.ed.gov or by using the paper form (FAFSA). Paper forms are available at your local college. Applying for student financial aid is free. You will need the latest income tax forms for you and your spouse or you and your parents (1040, 1040 A, 1040EZ, or 1040 Telefile). 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 for 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 January 1 as possible.

You may call a toll-free number for questions concerning the U.S. Department of Education Title IV programs by calling 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.

### 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, an application using the FAFSA is required. Each of KCTCS’ colleges has established local criteria for processing loans. Please contact your local college for specific information about its requirements.

### 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; Martha C. Johnson Tuition Scholarship; Charles E. Cranmer-Liquid Transport, Inc. Scholarship; William Foster Tichenor Nursing 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 Securing 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

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 per semester), 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).

Suspension Due to Poor Grades

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) he/she may take additional classes without Student Aid (unless the student is academically suspended) to raise his/her GPA 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.

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.

Personal Financial Liability - Withdrawing or All “E”s

Students who withdraw from college before the 60 percent point in 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 anyplace 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. RTW is designed to assist low-income parents who are enrolling in and attending community and technical colleges in Kentucky. RTW supports their success and completion through:

- Counseling, advocacy and mentoring
- Referrals to community resources
- Job references and referrals
- Job readiness, life skills, 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.
**Work and Learn**

Ready to Work services have been expanded to include adult basic education students who are working toward their GEDs and high school graduates who are brushing up on some basic skills before entering college. 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 & academic success seminar
- 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 “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 “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](http://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 chapters 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 a representative from each college. Members of this organization serve in an advisory capacity to Office of the Chancellor. The Advisory Council also provides the opportunity for the student body representatives 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

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)
- Medical data
- Current student status
- Accounts relating to charges
- Academic offenses
- Disciplinary offenses
- Counseling notes

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.
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 these goals are identified for the most effective advising and planning. In order to receive academic advising students should consult the local KCTCS college for information. Students can also refer to the Transfer Contacts listed on pages 59 to 61 on the KCTCS web site at: kctcs.edu. Search words: Transfer Contacts to assist with transfer planning at KCTCS and a four-year university.

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 guarantees the transfer of general education courses as follows:

Fully General Education Certified

Students who have completed a general education program* of 33 credit hours and who are in good academic standing 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 in good academic standing who have 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 Agreements.

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
Nicole McDonald
System Director for Transfer and Retention
300 North Main Street
Versailles, KY 40383
(859) 256-3389
nicole.mcdonald@kctcs.edu
Ashland Community and Technical College

Transfer Services
College Drive Campus - Room G101
Technology Drive Campus – Room 157

Transfer Contact
Cris McDavid
Associate Dean of Advising and Retention
Ashland Community and Technical College
1400 College Dr.
Ashland, KY 41101
(606) 326-2003
cris.mcdavid@kctcs.edu

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

Jim Jagielo
Admissions Advisor
Ashland Community and Technical College
1400 College Dr.
Ashland, KY 41101
(606) 326-2028
(800) 928-4256
j Jagielo@kctcs.edu

Big Sandy Community and Technical College

Transfer Services
Prestonsburg Campus - Counseling Center, Student Center Building
Pikeville Campus - Counseling Services, N 105J

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

Jimmy Wright
Interim 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

Bluegrass Community and Technical College

Transfer Services
BCTC Transfer Center
Cooper Campus, Room 100B Academic and Technical Building

Transfer Contact
Angel Clay
Director, Transfer Center
Bluegrass Community and Technical College
100B A.T. Building, 470 Cooper Drive
Lexington, KY 40506
(859) 246-4620

Becky Chritchfield
Transfer Advisor
100 B A.T. Building
470 Cooper Drive
Lexington, KY 40506
(859) 246-4620
www.bluegrass.kctcs.edu/transfer_center.aspx

Elizabethtown Community and Technical College

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

Transfer Contact
Major Cooper
Coordinator of Distance Learning and Transfer Services
Elizabethtown Community and Technical College
600 College St. Rd.
Elizabethtown, KY 42701
(270) 706-8751
mcooper0137@kctcs.edu

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
Student Support Services
Edgewood Campus, Student Services Center Building

Transfer Contact
Mike Rosenberg
Director of Transfer Services
500 Technology Way
Florence, KY 41042
Phone: 859-442-1609
Fax: 859-815-7162
michael.rosenberg@kctcs.edu

Hazard Community and Technical College

Transfer Services
Career and College Transfer Center
Main Campus, Jolly Classroom Center Building

Transfer Contact
Renee Back
Coordinator
Career and College Transfer Center
Hazard Community and Technical College
One Community College Drive
Hazard, KY 4170
606-487-3155
renee.back@kctcs.edu
Henderson Community College
Transfer Services
Success Center
Green Street Campus, Sullivan Technology Building
Transfer Contact
Lori Maltby
Admissions Counselor
Henderson Community College
102 Admin. Bldg., 2660 S. Green St.
Henderson, KY 42420
(270) 831-9677
lori.maltby@kctcs.edu

Hopkinsville Community College
Transfer Services
Transfer Center
Main Campus, Technology Center Building
Transfer Contact
Kanya Allen
Career Services Coordinator
Technology Center Building
Career and Transfer Center, Room 216
(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 Contact
Kathleen Mandlehr
Director of Transfer
Jefferson Community and Technical College
109 E. Broadway
Louisville, KY 40202
(502) 213-2119
kathleen.mandlehr@kctcs.edu

Selena Sanchez
Jefferson Community and Technical College
Transfer Advisor
(502) 213-2285
ssanchez0015@kctcs.edu

Betsy Langness
Jefferson Community and Technical College
Shelby County Campus, Room 104
(502) 213-3613
betsy.langness@kctcs.edu

Saundra Kimberlain
Jefferson Community and Technical College
Shelby County Campus, Room 105
(502) 213-7901
saundra.kimberlain@kctcs.edu

Madisonville Community College
Transfer Services
Transfer Center
North Campus, John H. Gray Building
Transfer Contact
Lori Johnson
Advising & Transfer Center
John H. Gray Building
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
Transfer Contact
Billie Barbour
Transfer Coordinator
Maysville Community and Technical College
1755 US 68
Maysville, KY 41056
(606) 759-7141, ext. 66182
Billie.barbour@kctcs.edu

Owensboro Community and Technical College
Transfer Services
Student Transfer and Educational Planning Center
Main Campus, Campus Center Building
Transfer Contact
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

Katie Ballard
Career Resource and Transfer Counselor
4800 New Hartford Road
Owensboro, KY 42303
(270) 686-4529
katie.ballard@kctcs.edu

Somerset Community College
Transfer Services
Transfer Center
Somerset Campus, Harold Rogers Student Commons
Laurel Campus North, Building 1
Transfer Contact
Karen McClain Wright
Director of Professional and Organizational Development
Somerset Community College
Student Commons Bldg. Room 208B, 808 Monticello Rd.
Somerset, KY 40506
(606) 451-6703
karen.wright@kctcs.edu

Laurel Campus
James Davis
Academic Advisor
Somerset Community College
100 University Drive
London, KY 40741
(606) 877-4732
james.davis@kctcs.edu
Academic Services

Gera Jones
Academic Advisor
Somerset Community College
100 University Drive
London, KY 40701
(606) 877 4723
gerajones@kctcs.edu
www.somerset.kctcs.edu/GET_Transfer_FromSCC.html

Southcentral Kentucky Community and Technical College
Transfer Services
Transition Center
Main Campus, Building A
Transfer Contact
Jennifer Dietzel
Director of Student Success
Southcentral Community and Technical College
1845 Loop Drive
Bowling Green, KY 42101
(270) 901-1188
jennifer.dietzel@kctcs.edu

Denna White
Director of Admissions
Southcentral Community and Technical College
1845 Loop Drive
Bowling Green, KY 42101
(270) 901-1001
(800) 790-0990
denna.white@kctcs.edu

Southeast Kentucky Community and Technical College
Transfer Services
Transfer Assistance Center
Cumberland Campus, Newman Hall
Middleboro Campus, Administration Building
Whitesburg Campus, Allied Health Building
Harlan Campus, Administration Building
Transfer Contact
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

Georgenia Billings
Counselor
Southeast Kentucky Community and Technical College
2 Long Avenue
Whitesburg, KY 41858
(606) 589-0853
georgenia.billings@kctcs.edu

West Kentucky Community and Technical College
Transfer Services
Transfer Center
Main Campus, Anderson Technology Building

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

Sandra Tucker
Director of Distance Education Advising
West Kentucky Community and Technical College
106 Anderson Bldg.
P.O. Box 7380
Paducah, KY 42002
270-534-3263
sandra.tucker@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

Kentucky State University
Jonathan Lott
KSU Transfer Coordinator
Office of Admissions
400 East Main St.
Frankfort, KY 40601
(502) 597-6462
jonathan.lott@kysu.edu

Morehead State University
Brad Bennington
Transfer Coordinator
(606) 783-2008
b.bennington@morehead-st.edu

Jen Timmerman
Transfer Senior Enrollment Services Counselor
(606) 783-5488
j.timmerman@morehead-st.edu

Murray State University
Maria Rosa
Director, Transfer Center
(800) 669-7654
(270) 809-4225
transfercenter@murraystate.edu

Northern Kentucky University
Matt Elrod
Transfer Coordinator
859-572-7524 (800) 637-9948
elrodma@nkku.edu

University of Kentucky
Ryan Wagoner
Assistant Director of Transfer Recruitment
(859) 257-7595
ryan.wagoner@uky.edu
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 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></td>
<td>4-5</td>
<td>ART 105 and ART 106</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>BIO 112</td>
<td>3 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></td>
<td>4-5</td>
<td>CHE 170 &amp; CHE 180</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Chinese Language and Culture</td>
<td>3</td>
<td>RAE 150</td>
<td>4 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</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></td>
<td>4-5</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>European History</td>
<td>3</td>
<td>HIS 104 and HIS 105</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>French Language</td>
<td>3</td>
<td>FRE 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>FRE 201 and FRE 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>German Language</td>
<td>3</td>
<td>GER 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>GER 201 and GER 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3</td>
<td>GEO 172</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Italian Language and Culture</td>
<td>3</td>
<td>TRN 106***</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>TRN 106 and TRN 107***</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Japanese Language and Culture</td>
<td>3</td>
<td>JPN 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>JPN 201 and JPN 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Latin: Vergil</td>
<td>3</td>
<td>TRN 106***</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>TRN 106 and 107***</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>3</td>
<td>ECO 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>3</td>
<td>ECO 202</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3</td>
<td>MUS 174</td>
<td>3 credit hours</td>
</tr>
</tbody>
</table>
Physics B* | 3 | PHY 201 and PHY 203 | 8 credit hours
Physics C** (mechanics) | 3 | PHY 231 | 4 credit hours
Physics C** (electricity and magnetism) | 3 | PHY 232 | 4 credit hours
Psychology | 3 | PSY 110 | 3 credit hours
Spanish Language | 3 | SPA 201 | 3 credit hours
| 4-5 | SPA 201 and 202 | 6 credit hours
Spanish Literature | 3 | TRN 110 (humanities)*** | 3 credits hours
Statistics | 3 | STA 220 | 3 credit hours
Studio Art 2-D | 3 | ART 112 | 3 credit hour
Studio Art 3-D | 3 | ART 113 | 3 credit hours
Studio Art – Drawing | 3 | ART 110 | 3 credit hours
US Government & Politics | 3 | POL 101 | 3 credit hours
US History | 3 | HIS 108 and HIS 109 | 6 credit hours
World History | 3 | HIS 101 | 3 credit hours

*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, or the Council on Postsecondary Education web site at www.cpe.ky.gov Search words: Academicinit Transfer.

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>Suggested KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part I – Office Systems &amp; Technology</strong></td>
</tr>
<tr>
<td>Computer Concepts – 3 credits</td>
</tr>
<tr>
<td>Computer Information Systems – 3 credits</td>
</tr>
<tr>
<td><strong>Part II – Office Administration</strong></td>
</tr>
<tr>
<td>Business Communications – 3 credits</td>
</tr>
<tr>
<td>Records Management 3 credits</td>
</tr>
<tr>
<td><strong>Part III – Management</strong></td>
</tr>
<tr>
<td>Management &amp; Supervision – 4 credits</td>
</tr>
<tr>
<td>Human Resource Management – 3 credits</td>
</tr>
<tr>
<td>Accounting – 1 credit</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.
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.

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>
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<td>HIS 108</td>
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<td>Principles of Macroeconomics</td>
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<td>ECO 202</td>
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<td>SOC 101</td>
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<td>Western Civilization I: Ancient Near East to 1648</td>
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<td>HIS 104</td>
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<td>Western Civilization II: 1648 to the Present</td>
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<td>HIS 105</td>
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<td>65-80</td>
<td>BIO 150, 152</td>
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<td>Natural Science</td>
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<td>Principles of Accounting</td>
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<td>Principles of Marketing</td>
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<td>Introduction to Business Law</td>
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<td>Information Systems and Computer Applications</td>
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<td>College Composition, College Composition Modular</td>
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<td>ENG 101</td>
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</table>
Industry Standard Certification Examinations

Computer and Information Technologies
A student who has completed and passed an industry standard certification examination administered by an authorized testing center may earn credit hours equivalent to the course(s) within the program of study as specified in the Computer and Information Technologies (CIT) Program curriculum. Credit will be granted only upon receipt of an official proof of certification credential stating the date passed. A copy of the credential must be filed as part of the student’s permanent record. The credential must be accepted before the expiration date of the credential or within five years of the date the credential was earned and specified on the examination, whichever comes first. Students should contact their KCTCS home college CIT Program Coordinator for possible industry certification credit.

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 be available at the local KCTCS college.

Academic Policies and Rules

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 5-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.

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. An 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 “subject to dismissal” the second time) and does not earn either a cumulative GPA or a term GPA of at least a 2.0 in the third term, the student shall be academically suspended. Non-enrollment has no effect on probation status. The president (or designee) may grant an exception based upon an individual’s case. A student on academic suspension may not enroll in courses which count toward a KCTCS degree.

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 coursework 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, selected by the student, 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 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. In the case of degree programs offered through joint, cooperative, or consortia arrangements, the student must earn at least 25 percent of the credits from the participating institutions. 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. In order to be eligible for:

- Associate in Arts, Associate in Science, Associate in Fine Arts, Associate in Applied Science, and Associate in Applied 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)**

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<tr>
<th>General Education</th>
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<th>AS</th>
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<td>Core Requirements</td>
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<td>Written Communications</td>
<td>6 credit hours</td>
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<tr>
<td>Oral Communications</td>
<td>3 credit hours</td>
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<tr>
<td>Arts and Humanities</td>
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<td>6 credit hours</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>9 credit hours</td>
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<tr>
<td>Quantitative Reasoning</td>
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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.

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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/](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.
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:

Written and Oral Communications 9 credit hours
Arts and Humanities 3 credit hours

The course chosen to satisfy this requirement must be from a discipline other than the discipline in the Fine Arts Core and/or concentration.

Quantitative Reasoning 3 credit hours
Natural Sciences 3 credit hours

Must include a laboratory experience for general education certification in the Natural Sciences category.

Social and Behavioral Sciences 6 credit hours

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.

Additional courses could be used for other areas in approved curricula for diplomas but may not meet general education transfer requirements.

Associate in Applied Science (AAS)

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 diploma level.

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.
   (Courses designated "Diploma Only" on the General Education list will not apply toward an Associate Degree)
4. General education 6 credit hour requirement for diplomas in areas 1-2 as follows:
   Area 1: Written/Oral Communications, Humanities, or Heritage 3 credit hours
   Area 2: Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning 3 credit hours

   Additional courses could be used for other areas in approved curricula for diplomas but may not meet general education transfer requirements.

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

   Technical & Support* 30 - 54

   Total Credit Hours 36 - 60

   *The Technical and Support requirements must include a work experience component of 1-12 credit hours.

   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.

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

Certificate

The primary purpose and features of certificate programs of study are to provide marketable, entry-level skills. Certificates qualify students to take external licensure, vendor-based, or skill standards examinations in 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. Certificates will address one or more general education competencies.
2. Certificate curricula will be approved through the KCTCS Curriculum process.
3. Certificates will be applicable toward at least one associate degree. The above are minimum general education requirements; additional hours may be required in specific program curricula.

Requirements for a certificate are applicable to the requirements of a diploma or associate degree in the same or a related field of study. Requests for exceptions must include appropriate documentation to justify approval. Certificates may contain general education courses emphasizing the skills identified in the Secretary’s Commission on Achieving Necessary Skills (SCANS) report that are critical to entry-level workforce success for persons prepared at the certificate level and associated with the diploma or associate degree program. SCANS identified three foundation skills and five competencies necessary for success in the workplace.

**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.

**Continuing Education Courses**

Continuing education courses can be either credit or non-credit and are designed to meet the needs of the labor market and persons preparing to enter the workforce. They can also supplement knowledge and skills for initial employment or job advancement. They are developed to meet the lifelong learning needs of the general public by providing short-term training, retraining, or upgrading of skills for employment or job advancement.

**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
7810 Alben Barkley Drive
Paducah, KY 42002-8227
(800#) 888-306-7901
charles.lott@kctcs.edu
Counties: Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Livingstone, Marshall, McCracken

Madisonville Community College (Area 2)
Edward Schmidt, Coordinator
P. O. Box 150
2001 US 62W
Princeton, KY 42445
(800#) 888-306-7986
ed.schmidt@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)
Casey Hall, Coordinator
630 College Street Road
Elizabethtown, KY 42701
(800#) 888-234-7201
casey.hall@kctcs.edu
Counties: Breckinridge, Grayson, Hardin, Larue, Marion, Meade, Nelson, Washington

Jefferson Community & Technical College (Area 6)
Mike Wallingford, Coordinator
1361 Frankfort Road
Shelbyville, KY 40065
(800#) 888-306-8064
mike.wallingford@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
P. O. Box 248
609 Viking 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
4818 Roberts Drive
Ashland, KY 41102
(800#) 888-302-8833, Ext. 62431
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: Floyd, Johnson, Magoffin, Martin, Pike

Hazard Community & Technical College (Area 12)
Chuck Caldwell, Coordinator
45 Gorman Hollow Road
Hazard, KY 41701
(800#) 888-234-6759
sfrt12@windstream.net
Counties: Breathitt, Knott, Lee, Leslie, Letcher, Owsley, Perry, Wolfe

Somerset Community College/Laurel Campus (Area 13)
Marc Rudder, Coordinator
913 TLC Lane
London, KY 40741
(800#) 888-234-0100
marc.rudden@kctcs.edu
Counties: Bell, Clay, Harlan, Jackson, Knox, Laurel, Rockcastle, Whitley

Somerset Community College (Area 14)
Charlie Shaw, Coordinator
385 Old Greensburg Road
Campbellsville, KY 42718
(800#) 888-234-1780
fireresq@kyol.net
Counties: Adair, Casey, Clinton, Cumberland, Green, McCreary, Pulaski, Russell, Taylor, Wayne

Bluegrass Community & Technical College/Lawrenceburg Campus (Area 15)
Vacant
1500 Bypass N US 127
Lawrenceburg, KY 40342
(800#) 888-234-3961
Counts: Anderson, Bourbon, Boyle, Clark, Estill, Fayette, Franklin, Garrard, Harrison, Jessamine, Lincoln, Madison, Mercer, Nicholas, Powell, Scott, Woodford

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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
COM 252 Intro to Interpersonal Communications
COM 281 Communication in Small Group
COM 287 Persuasive Speaking

Quantitative Reasoning
Diploma
OST 213 Business Calculations for the Office Professional 3
Any mathematics course approved for the AAS, AA, or AS
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 .................................... 2
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 178 Calculus I .............................................. 4
MAT 175 Calculus II ............................................ 5
MAT 184 Calculus II ............................................. 4
MAT 185 Calculus II ............................................ 5
MAT 206 Mathematics for Elementary
and Middle School Teachers II ..................... 3
MAT 261 Introduction to Number Theory .............. 3
MAT 275 Calculus III ............................................ 4
MAT 285 Differential Equations .......................... 3
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, AFA, AS
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* ......... 1
BIO 112 Introduction to Biology ................................ 3
BIO 113 Introduction to Biology Lab* .................... 1
BIO 114 Major Discoveries in Biology .................... 3
BIO 115 Biology Laboratory I* ............................. 1
BIO 116 Biology II ................................................. 1
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* ......................... 3
BIO 142 Zoology ................................................... 3
BIO 143 Zoology with Laboratory* ....................... 3
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* .......... 3
BIO 155/AST 155 Astrobiology .............................. 3
BIO 209 Introductory Microbiology Lab# .......... 2
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 The Joy of Chemistry .................................. 5
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 College Chemistry I .................... 3
CHE 175 General College Chemistry Laboratory I* .......... 1
CHE 180 General College Chemistry II .................... 3
CHE 185 General College Chemistry Laboratory II* ...... 5
CHE 220 Analytical Chemistry* .............................. 3
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
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<td>POL 235</td>
<td>World Politics</td>
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<tr>
<td>POL 210</td>
<td>Introduction to European Politics: East and West</td>
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<td>HUM 135</td>
<td>Introduction to Native American Literature</td>
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<td>GEO 130</td>
<td>Earth's Physical Environment</td>
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<td>GEO 251</td>
<td>Weather and Climate</td>
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<td>GILY 101</td>
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<td>GILY 110</td>
<td>Environmental Geology</td>
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<td>GILY 111</td>
<td>Laboratory for Physical Geology*</td>
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<tr>
<td>GILY 112</td>
<td>Laboratory for Historical Geology*</td>
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<td>GILY 130</td>
<td>Dinosaurs and Disasters</td>
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<td>GILY 131</td>
<td>Dinosaur Laboratory*</td>
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<td>GILY 220</td>
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<td>PHY 160</td>
<td>Physics and Astronomy for Elementary Teachers*</td>
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<td>PHY 171</td>
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<td>PHY 242</td>
<td>General University Physics II Laboratory*</td>
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<tr>
<td>SCI 295</td>
<td>Scientific Investigations</td>
<td>3</td>
</tr>
</tbody>
</table>

*Course satisfies the General Education requirement for a laboratory experience.

### Social and Behavioral Sciences

**Diploma**
- EFM 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
- ANT 242 Origins of New World Civilizations ............................................. 3
- COM 101 Introduction to Communications .................................................. 3
- COM 249 Mass Media and Mass Culture ....................................................... 3
- COM 254 Intro to Intercultural Communications ......................................... 3
- ECO 101 Contemporary Economic Issues .................................................... 3
- ECO 150 Introduction to Global Economics ................................................ 3
- ECO 201 Principles of Microeconomics ........................................................ 3
- ECO 202 Principles of Macroeconomics ........................................................ 3
- FAM 252 Introduction to Family Science .................................................... 3
- FAM 253 Human Sexuality: Development, Behavior, and Attitudes ..................... 3
- FLK 280 Cultural Diversity in the US .......................................................... 3
- GEN 140 Development of Leadership ........................................................... 3
- GEN 225 Lifelong Learning Applications ..................................................... 3
- GEO 152 Regional Geography of the World .................................................... 3
- GEO 160 Lands and Peoples of the Non-Western World .................................. 3
- GEO 172 Human Geography ............................................................................ 3
- GEO 210 Pollution, Hazards and Environmental Management .......................... 3
- GEO 222 Cities of the World ......................................................................... 3
- GEO 240 Geography and Gender ..................................................................... 3
- HUM 135 Introduction to Native American Literature* .................................. 3
- HUM 202 Survey of Appalachian Studies I ................................................. 3
- HUM 203 Survey of Appalachian Studies II ................................................. 3
- HUM 204 Appalachian Seminar ....................................................................... 3
- HUM 221 Contemporary Perspectives on Peace and War .................................. 3
- POL 101 American Government ...................................................................... 3
- POL 210 Introduction to European Politics: East and West ............................ 3
- POL 312 Culture and Politics in the Third World ......................................... 3
- POL 315 World Politics ................................................................................... 3
- POL 255 State Government ............................................................................ 3
- PSY 110 General Psychology ......................................................................... 3
- PSY 180 Human Relations ............................................................................. 3
- PSY 185 Human Potential ............................................................................... 3
- PSY 230 Psychosocial Aspects of Death and Dying ...................................... 3
- PSY 223 Developmental Psychology ............................................................. 3
- PSY 297 Psychology of Aging ......................................................................... 3
- PSY 298 Essentials of Abnormal Psychology ............................................... 3
- REL 120 Introduction to Chinese Culture .................................................... 3
- REL 101 Introduction to Religious Studies ................................................... 3
- REL 130 Introduction to Comparative Religion ........................................... 3
- SOC 101 Introduction to Sociology ................................................................ 3
- SOC 151 Social Interaction ........................................................................... 3
- SOC 152 Modern Social Problems .................................................................. 3
- SOC 220 The Community ............................................................................... 3
- SOC 235 Inequality in Society ....................................................................... 3
- SOC 249 Mass Media and Mass Culture .......................................................... 3
- SOC 260 Population, Resources and Change .................................................. 3
- SPA 115 Hispanic Culture: (Country or Region) ........................................... 3
- SWK 275 The Family ...................................................................................... 3
- WGS 200 Introduction to Women’s and Gender Studies in the Social Sciences .... 3

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

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<tr>
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<tr>
<td>FLK 276</td>
<td>Introduction to Folk Studies</td>
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<tr>
<td>HIS 101</td>
<td>World Civilization I</td>
<td>3</td>
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<tr>
<td>HIS 102</td>
<td>World Civilization II</td>
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<tr>
<td>HIS 104</td>
<td>A History of Europe Through the Mid Seventeenth Century</td>
<td>3</td>
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<td>HIS 105</td>
<td>A History of Europe from the Mid Seventeenth Century to the Present ..........</td>
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<td>HIS 106</td>
<td>Western Culture: Science and Technology I</td>
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<td>HIS 107</td>
<td>Western Culture: Science and Technology II</td>
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<td>HIS 108</td>
<td>History of the U.S. Through 1863</td>
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<td>History of the U.S. Since 1865</td>
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<td>HIS 120</td>
<td>The World at War 1939-45</td>
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<td>HIS 202</td>
<td>History of British People to the Restoration</td>
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<td>HIS 203</td>
<td>History of British People Since the Restoration</td>
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<td>HIS 206</td>
<td>History of Colonial Latin America</td>
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<td>HIS 207</td>
<td>History of Modern Latin America, 1810 to present</td>
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<td>HIS 240</td>
<td>History of Kentucky</td>
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<td>HIS 247</td>
<td>History of Islam and Middle East Peoples, 500-1250 A.D.</td>
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<td>HIS 248</td>
<td>History of Islam and Middle East Peoples, 1250 to present</td>
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<td>HIS 254</td>
<td>History of Sub-Saharan Africa</td>
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<td>HIS 260</td>
<td>African American History to 1865</td>
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<td>HIS 261</td>
<td>African American History 1865 - Present</td>
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<td>HIS 265</td>
<td>History of Women in America</td>
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<td>HIS 270</td>
<td>Ancient Europe</td>
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<td>HIS 271</td>
<td>Medieval Europe</td>
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<td>HIS 295</td>
<td>East Asia to 1800</td>
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<td>HIS 296</td>
<td>History of Asia II</td>
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### Humanities

Diploma, AAS, AA, AS, AFA

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<td>ANT 130</td>
<td>REL 130 Introduction to Comparative Religion</td>
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<tr>
<td>ART 100</td>
<td>Introduction to Art</td>
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<tr>
<td>ART 104</td>
<td>Introduction to African Art</td>
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<tr>
<td>ART 105</td>
<td>Ancient Through Medieval Art History ....................................................</td>
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<tr>
<td>ART 106</td>
<td>Renaissance Through Modern Art History ................................................</td>
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<tr>
<td>ART 201</td>
<td>Ancient Art History</td>
<td>3</td>
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<tr>
<td>ART 202</td>
<td>Medieval Art History</td>
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<td>ART 203</td>
<td>Renaissance Art History</td>
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<td>ART 204</td>
<td>Modern Art History</td>
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<td>ENG 135</td>
<td>Greek and Roman Mythology in Translation</td>
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<td>ENG 161</td>
<td>Introduction to Literature</td>
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<tr>
<td>ENG 221</td>
<td>Survey of English Literature I</td>
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### Competency Requirements

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<tr>
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<tr>
<td>WGS 201 Introduction to Women's and Gender Studies in the Historical Contexts of the Americas</td>
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<td>THA 200 Introduction to Dramatic Literature</td>
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<td>THA 101 Introduction to Theatre: Principles and Practices</td>
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<td>REL 130 Introduction to Comparative Religion*</td>
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<td>REL 101 Introduction to Religious Studies</td>
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</tr>
<tr>
<td>SOC 235 Inequality in Society</td>
<td>3</td>
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### 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

<table>
<thead>
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<tbody>
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<td>ANT 160 Cultural Diversity in the Modern World</td>
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<tr>
<td>ANT 220 Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 221 Native People of North America</td>
<td>3</td>
</tr>
<tr>
<td>ANT 235 Food and Culture</td>
<td>3</td>
</tr>
<tr>
<td>ANT 241 Origins of Old World Civilizations</td>
<td>3</td>
</tr>
<tr>
<td>ANT 242 Origins of New World Civilizations</td>
<td>3</td>
</tr>
<tr>
<td>COM 224 Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 150 Introduction to Global Economics</td>
<td>3</td>
</tr>
<tr>
<td>GEO 152 Regional Geography of the World</td>
<td>3</td>
</tr>
<tr>
<td>GEO 160 Lands and Peoples of the Non-Western World</td>
<td>3</td>
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<tr>
<td>HUM 135 Introduction to Native American Literature</td>
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</tr>
</tbody>
</table>

#### Foreign Languages

<table>
<thead>
<tr>
<th>Language</th>
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</thead>
<tbody>
<tr>
<td>FRE 101 Elementary French I</td>
<td>4</td>
</tr>
<tr>
<td>FRE 102 Elementary French II</td>
<td>4</td>
</tr>
<tr>
<td>FRE 201 Intermediate French I</td>
<td>3</td>
</tr>
<tr>
<td>FRE 202 Intermediate French II</td>
<td>3</td>
</tr>
<tr>
<td>GER 101 Elementary German I</td>
<td>4</td>
</tr>
<tr>
<td>GER 102 Elementary German II</td>
<td>4</td>
</tr>
<tr>
<td>GER 201 Intermediate German I</td>
<td>3</td>
</tr>
<tr>
<td>GER 202 Intermediate German II</td>
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</table>

#### Other General Education Courses

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 101 World Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 102 World Civilization II</td>
<td>3</td>
</tr>
<tr>
<td>HIS 206 History of Colonial Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HIS 207 History of Modern Latin America, 1810 to Present</td>
<td>3</td>
</tr>
<tr>
<td>HIS 247 History of Islam and Middle Eastern Peoples, 500-1250</td>
<td>3</td>
</tr>
<tr>
<td>HIS 248 History of Islam and Middle Eastern Peoples, 1250 to the Present</td>
<td>3</td>
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</tbody>
</table>

### Legacy

<table>
<thead>
<tr>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>HIS 254 History of Sub-Saharan Africa</td>
<td>3</td>
</tr>
<tr>
<td>HIS 260 African American History to 1865</td>
<td>3</td>
</tr>
</tbody>
</table>
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
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
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
MUS 101 Folk and Traditional Music of the Western Continents
MUS 104 Introduction to Jazz History
MUS 208 World Music
REL 101 Introduction to Religion
REL 130 Introduction to Comparative Religion
WGS 201 Introduction to Women’s and Gender Studies in the Arts and Humanities

**Foreign Languages**

FRE 101 Elementary French I
FRE 102 Elementary French II
FRE 201 Intermediate French I
FRE 202 Intermediate French II
GER 101 Elementary German I
GER 102 Elementary German II
GER 201 Intermediate German I
GER 202 Intermediate German II
JPN 101 Beginning Japanese I
JPN 102 Beginning Japanese II
RAE 150 Elementary Chinese I
RAE 151 Elementary Chinese II
SED 101 Sign Language I
SED 102 Sign Language II
SED 203 Sign Language III
SED 204 Sign Language IV
SPA 101 Elem Spanish I
SPA 102 Elementary Spanish II
SPA 201 Intermediate Spanish I
SPA 202 Intermediate Spanish II

* listed under more than one category and/or with a different prefix; may not be counted in more than one general education category.

**Digital Literacy**

CIT 105 Introduction to Computing.................... 3
DLC 100 Digital Literacy .................................. 3
IMD 100 Introduction to Information Systems .......... 3
OST 105 Introduction to Information Systems .......... 3
VCC 150 Mac Basics ...................................... 3

Digital literacy, also referred to previously as computer literacy, is a topic both broad in its scope and deep in its detail. As a consequence of this, KCTCS has adopted current Internet and Computing Core Certification (IC3) objectives to define digital literacy, emphasizing in particular the three identified, broad categories of Computing Fundamentals, Key Applications, and Living On-line. A complete listing of the IC3 objectives may be found at http://www.certiport.com/Portal/desktopdefault.aspx?page=common/pagelibrary/IC3_Certifications.html

All AA, AS, AFA, AAS, and diploma students graduating from KCTCS must demonstrate digital literacy by one of the following means within five years preceding their current admission to a KCTCS college:

1. Scoring a minimum of a 75% composite score on the digital literacy exam, or
2. Achieving the IC3 Certification, or
3. Articulating credit from another institution which has demonstrated compliance with the above course criteria as identified by the registrar of the receiving college in cooperation with the digital literacy faculty of the receiving college, or
4. Receiving credit for an approved KCTCS digital literacy course, or
5. Providing documentation of successful completion of other certification exams as approved by KCTCS.

Documentation of digital literacy will be placed on the student’s transcript. Students may choose to take the standardized Computer Exam to demonstrate computer competency. Students who score a passing score on the exam will have met the requirements of digital literacy and documentation will be placed on the student’s transcript.

**Lower Division University Courses that Fulfill General Education Requirements**

The courses listed below are offered by KCTCS colleges through agreements with the Kentucky universities that developed the courses. KCTCS honors the university course content, prerequisites, and general education status of the courses. Courses descriptions for these courses are included in the Course Description section at the end of the catalog.

ASL 101 American Sign Language I (EKU)
ASL 102 American Sign Language II (EKU)
ASL 201 American Sign Language III (EKU)
ASL 202 American Sign Language IV (EKU)
BIOI 110 Inquiry Biology for Teachers (Morehead)
BIO 216 Biological Inquiry and Analysis (Murray)
CHE 253 Materials Science (UL)
CS 115 Intro to Computer Programming (UK)
CS 215 Introduction to Program Design, Abstraction, and Problem Solving (UK)
CS 216 Introduction to Software Engineering (UK)
CS 221 First Course Computer Science Engineer (UK)
CS 275 Discrete Mathematics (UK)
GEO 135 Global Climate Change (UK)
GEO 163 Global Conflicts (UK)
GEO 162 Intro to Global Env Issues (UK)
INF 120 Elementary Programming (NKU)
INF 128 Principles of Informatics (NKU)
INF 260 Object Oriented Programming I (NKU)
INF 260L Object Oriented Program Lab (NKU)
INF 282 Introduction to Databases
INF 286 Intro to Web Dev (NKU)
ITP 115 Heritage and Culture of Deaf People (EKU)
LEAD 200 Introduction to Leadership Studies (WKU)
MA 109 College Algebra (UK)
MA 110 Algebra and Trigonometry for Calculus (IUK)
MA 111 Introduction to Contemporary Mathematics (UK)
MA 112 Trigonometry (UK)
MA 113 Calculus I (UK)
MA 114 Calculus II (UK)
MA 123 Elementary Calculus and Its Applications (UK)
MA 162 Finite Mathematics and Its Applications (UK)
MA 193 Supplementary Math Workshop I (UK)
MA 194 Supplementary Math Workshop II (UK)
MA 201 Mathematics for Elementary Teachers (UK)
MA 202 Mathematics for Elementary Teachers (UK)
MA 213 Calculus III (UK)
MA 214 Calculus IV (UK)
MA 241 Geometry for Middle School Teachers (UK)
MAT 201 Mathematical Concepts for Middle and Elementary School Teachers I (EKU)
MAT 202 Math Concepts for Teachers II (EKU)
MSE 201 Intro to Materials Science (UK)
MUC 175 Jazz Ensemble (UK)
MUC 190 Instructor Consent Required Marching Band (UK)
MUP 114 Trombone I (UK)

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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. The majority of the course changes for General Education courses are available in Appendices B-E. Math course transitions that took place fall 2004 and fall 2010 are available in Appendix B. Biology course transitions are available in Appendix C. Chemistry course transitions are available in Appendix D. Art, Foreign Language, General, Music, Philosophy, Political Science, Psychology, Religion, Theatre, and Women and Gender Studies course transitions are available in Appendix E. Agricultural Technology, Biotechnology, Business Administration, Collision Repair Technology, Computer Aided Drafting, Cosmetology, Criminal Justice, Dental Assisting, Dental Hygiene, Diagnostic Medical Sonography, Education, Energy Systems, Engineering & Electronics Technology, Global Studies, Health Physics, Homeland Security/Emergency Management, Human Services, Masonry, Mining Technology, Nuclear Medicine & Molecular Imaging, Nursing, Professional Studio Artist, Radiography, and Real Estate course transitions are available in Appendix F. Computer & Information Technologies, Computerized Manufacturing and Machining, Digital Game and Simulation Design, Industrial Safety, Industrial Technology, Medical Information Technology, and a few General Education course transitions are available in Appendix G. Education, Professional Studio Artists, Medical Laboratory Technology and Logistics and Operations Management course transitions are available in Appendix H.

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>
</tr>
</thead>
<tbody>
<tr>
<td>ASC</td>
<td>Ashland Community and Technical College</td>
</tr>
<tr>
<td>BLC</td>
<td>Bluegrass Community and Technical College</td>
</tr>
<tr>
<td>BSC</td>
<td>Big Sandy Community and Technical College</td>
</tr>
<tr>
<td>ELC</td>
<td>Elizabethtown Community and Technical College</td>
</tr>
<tr>
<td>GTW</td>
<td>Gateway Community and Technical College</td>
</tr>
<tr>
<td>HZC</td>
<td>Hazard Community and Technical College</td>
</tr>
<tr>
<td>HEC</td>
<td>Henderson Community College</td>
</tr>
<tr>
<td>HPC</td>
<td>Hopkinsville Community College</td>
</tr>
<tr>
<td>JFC</td>
<td>Jefferson Community and Technical College</td>
</tr>
<tr>
<td>MDC</td>
<td>Madisonville Community College</td>
</tr>
<tr>
<td>MYC</td>
<td>Maysville Community and Technical College</td>
</tr>
<tr>
<td>OWC</td>
<td>Owensboro Community and Technical College</td>
</tr>
<tr>
<td>SMC</td>
<td>Somerset Community College</td>
</tr>
<tr>
<td>SKY</td>
<td>Southcentral Kentucky Community and Technical College</td>
</tr>
<tr>
<td>SEC</td>
<td>Southeast Kentucky Community and Technical College</td>
</tr>
<tr>
<td>WKC</td>
<td>West Kentucky Community and Technical College</td>
</tr>
</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 colleges offer KCTCS Online Learn by Term marketed through the Kentucky Virtual Campus (KYVC) <www.kyvc.org>. These online courses are 3-4 credits each, offered by semester, and lead to certificates, diplomas, and degrees. Online learning is an alternative for many students who cannot attend classes on campus due to scheduling conflicts, childcare, work or other commitments.

KCTCS colleges also offer module courses, 3-4 credit full courses and programs through KCTCS Online Learn on Demand. Unlike the traditional Learn by Term online courses, Learn on Demand courses start every day and offer education in “bite-sized chunks” which are courses divided into smaller modules that are only 3 to 8 weeks long and focus on specific skills. Additionally, Learn on Demand also offers 3-4 credit full courses to be completed in 15 weeks. Each course and module earns credit at KCTCS colleges same as with Learn by Term—and credits build toward degrees.

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. In addition to these online options, KCTCS colleges also offer Live Virtual Classes through video conferencing technologies and Interactive Television (ITV).

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 the Kentucky Virtual Campus 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/.

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.

KCTCS Online Learn by Term
Current List of Semester-based Online Programs:

Associate in Arts

Associate in Science

Associate in Applied Science:

Business Administration Systems

All degree options are online

Criminal Justice
- Criminal Justice Track
- Law Enforcement Track
- Security and Loss Prevention Track

General Occupational/Technical Studies
- General Occupational/Technical Studies

Health Information Technology (Offered by Hazard Community and Technical College)
- Health Information Technology (Practicum arranged on-site in student vicinity)

Information Management and Design
- Library Information Technology

Computer & Information Technologies
- Applications Track
- Computer Science Track
- Information Security Track
- Internet Technologies Track
- Network Administration Track
- Networking Technologies Track
- Programming Track

Quality Management Systems
- Quality Management Systems

Medical Information Technology (Internship and practicum arranged on-site in student vicinity)
- Medical Administrative Track
- Medical Coding Track
- Electronic Medical Records Track
- Medical Transcription Track
| Office Systems Technology                  | - Administrative Track                                |
|                                          | - Financial Assistant Track                           |
|                                          | - Desktop Publishing Track                            |
| Logistics & Operation Management        | - Logistics & Operations Management                   |
| Marine Technology                       | - Marine Logistics Operations Track                   |
|                                          | - Wheelhouse Management Track                         |

**Diplomas**

**Business Administration Systems**
- All diplomas are online

**Computer Aided Drafting & Design**
- Computer Aided Drafting & Design

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

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

**Certificates**

**Business Administration Systems**
- All certificates are online

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

**Education**
- Paraeducator

**Health Information Technology** (Practicums are arranged onsite in student's vicinity)
- Medical Records Coding Specialist
- Release of Information Data Specialist

**Historic Information Management**
- Archival Management
- Museum Management
- Records Management

**Human Services**
- Direct Support Work

**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
- Network Technologies Specialist
- Net+
- Programming
- Productivity Software Specialist
- Security+
- Web Programming
- Web Administration

**Interdisciplinary Early Childhood Education**
- Early Childhood Administrator
- Child Care Assistant
- Kentucky Child Care Provider
- School Age Child Care

**Nursing**
- Medicaid Nurse Aide
- Advanced Nursing Assistant

**Quality Management Systems**
- Quality Leader
- Quality Monitor
- Quality Specialist I
- Quality Support

**Logistics & Operations Management**
- Logistics Management

**Marine Technology**
- Marine Industry
- Marine Technology Business

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

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

**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 both full courses called “parent” courses and bite-size classes (called “modules”). Modules classes are about 3-5 weeks long and are called “modules”. Learn on Demand full course offerings are 13-weeks long and include all modules required in a full course. This flexibility allows you to start on a schedule you choose. 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/.
Learn on Demand gives you unparalleled flexibility and control of your education because you can begin a new module or full course whenever you’re ready. Unlike other online colleges with fixed course schedules, we offer the first truly on-demand education where you’re free to work at your own pace and earn credit for prior knowledge. We also offer virtual student services 24/7 through the Go KCTCS! Student Service Center.

Degree

Associate in Arts

Associate in Science

Business Administration
• Human Resources Management
• Management

Computer and Information Technologies
• Information Security
• Network Administration

Nursing
• Associate Degree Nursing (ADN)

Integrated Engineering Technology

Certificate

Computer and Information Technologies
• A+
• CIT Fundamentals
• Computer Tech Basic
• Computer Technician
• Information Security Specialist
• Microsoft Network Administrator
• Net+
• Security+

Business Administration
• Advanced Business Administration

Human Resource Management
• Leadership
• Management
• Small Business Management
• Team Leadership

Nursing
• Medicaid Nurse Aide (MNA)

Integrated Engineering Technology
• Mechanical Engineering Technology
• Electrical Engineering Technology

Diploma

Business Administration Systems
• Organizational Leadership
• Small Business Management

Integrated Engineering Technology

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

### 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 technically 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AIT 100</td>
<td>Equipment Installation</td>
<td>3</td>
</tr>
<tr>
<td>AIT 130</td>
<td>Measurement and Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>AIT 140</td>
<td>Industrial Controls I</td>
<td>4</td>
</tr>
<tr>
<td>AIT 150</td>
<td>Industrial Controls II</td>
<td>4</td>
</tr>
<tr>
<td>AET 190</td>
<td>Industrial Computer Programming Concepts</td>
<td>4</td>
</tr>
<tr>
<td>AIT 210</td>
<td>Equipment Maintenance</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

Choose 14 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.

### Certificate

#### Multi-Skilled Technician - 1504993110

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ACR 100</td>
<td>Refrigeration Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 102</td>
<td>HVAC Electricity</td>
<td>3</td>
</tr>
<tr>
<td>ACR 103</td>
<td>HVAC Electricity Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 130</td>
<td>Electrical Components</td>
<td>3</td>
</tr>
<tr>
<td>ACR 131</td>
<td>Electrical Components Lab</td>
<td>3</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
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<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tools-B</td>
<td>4</td>
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<tr>
<td>AIT 135</td>
<td>Industrial Refrigeration I</td>
<td>3</td>
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<tr>
<td>AIT 160</td>
<td>Workplace Safety</td>
<td>1</td>
</tr>
<tr>
<td>AIT 200</td>
<td>Process Management and Quality Control</td>
<td>4</td>
</tr>
<tr>
<td>AIT 220</td>
<td>The Integrated Power Grid</td>
<td>3</td>
</tr>
<tr>
<td>AIT 230</td>
<td>Integrated Power Plant Operations</td>
<td>3</td>
</tr>
<tr>
<td>AIT 235</td>
<td>Industrial Refrigeration II</td>
<td>3</td>
</tr>
<tr>
<td>AIT 270</td>
<td>Introduction to Robotics and Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>ELT 250</td>
<td>Programmable Logic Controllers</td>
<td>4</td>
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<tr>
<td>AET 250</td>
<td>PLC Networking</td>
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<tr>
<td>AET 270</td>
<td>Advanced PLC Programming</td>
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<tr>
<td>AIT 290</td>
<td>Selected Topics in Advanced Integrated Technology 0.1-5.0</td>
<td>14</td>
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<tr>
<td>AIT 299</td>
<td>Advanced Electromechanical Concepts</td>
<td>4</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
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Demonstration of digital literacy is required for the AAS degree.

#### Engineering Controls - 1504993120

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AIT 140</td>
<td>Industrial Controls I</td>
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</tr>
<tr>
<td>AIT 150</td>
<td>Industrial Controls II</td>
<td>4</td>
</tr>
<tr>
<td>AET 190</td>
<td>Industrial Computer Programming Concepts</td>
<td>4</td>
</tr>
<tr>
<td>ELT 250</td>
<td>Programmable Logic Controllers</td>
<td>4</td>
</tr>
<tr>
<td>AET 250</td>
<td>PLC Networking</td>
<td>4</td>
</tr>
<tr>
<td>AIT 270</td>
<td>Advanced PLC Programming</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>
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, OWC)

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 AND  1
- **BIO 116** Biology I Lab AND ..................................... 3
- **BIO 117** Biology II Lab OR .................................. 1
- **BIO 144** 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 I Lab ............................ 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 ........................................ 3
- **Digital Literacy** .................................................. 3
- **Electives** .......................................................... 5

Subtotal 25

**Agricultural Technology Track - 010301701**

- **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**

- **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

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**African American Studies**

The African American Studies Certificate Program provides an interdisciplinary approach to identify and engage the historical and contemporary issues confronting Africans 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
- **MUS 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 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.
Diploma

Agricultural Technology - 0103014019
(Offered at HEC, HPC, OWC)

General Education Courses: .................................................... 3
- Written Communication, Oral Communications, or
  Humanities/Heritage .................................................. 3
AGR 101 The Economics of Food and Agriculture ....................... 3
Subtotal 6

Technical Courses:
AGR 125 Introduction to Fertilizers and Soils ......................... 3
AGR 130 Field Applications in Agriculture .............................. 2
AGR 140 Issues in Agriculture ............................................ 3
AGR 150 Agricultural Power ................................................. 3
AGR 170 Introduction to Equipment, Machines, and Engines ........ 3
AGR 180 Agricultural Internship I ........................................ 2
AGR 190 Agricultural Internship II ........................................ 2
AGR 200 Agricultural Internship III ....................................... 2
AGR 220 Computers in the Agricultural Environment .................. 3
AGR 230 Career Development in Agriculture ............................ 3
AGR 240 Animal Science .................................................... 3
AGR 250 Introduction to Plants/Crop Production ...................... 3
Digital Literacy ................................................................. 3
Subtotal 35
Total Credits 41

Certificates

Agricultural Technician - 0103013009
(Offered at ASC, HEC, HPC, OWC)

AGR 140 Issues in Agriculture ............................................. 3
AGR 150 Agricultural Power ................................................ 3
AGR 230 Career Development in Agriculture ............................ 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 130 Field Applications in Agriculture .............................. 2
Total Credits 24

Sustainable Agriculture - 0103013029

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 240 Animal Science .................................................... 3
AGR 125 Introduction to Fertilizers and Soils ......................... 3
AGR 160 Horticulture Science ............................................. 3
AGR 270 Introduction to Organic Agriculture ......................... 3
BAS 282 Principles of Marketing ......................................... 3
Total Credits 27

Air Conditioning Technology

Installing and servicing heating, ventilation, 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 HEC, HPC, OW)

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

Subtotal Credits 18

Technical Courses:
ACR 100 Refrigeration Fundamentals .................................... 3
ACR 101 Refrigeration Fundamentals Lab ................................ 2
ACR 102 HVAC Electricity AND ............................................ 3
ACR 103 HVAC Electricity Lab OR .......................................... 2
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 261 Heating and Humidification Lab ................................ 3
ACR 270 Heat Pump Application ............................................ 3
ACR 271 Heat Pump Application Lab ...................................... 2
Electives** ................................................................. 9-11
Subtotal Credits 42-48
Total Credits 60-66

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

Diploma

Heating, Ventilation, and Air Conditioning Mechanic - 4702014009
(Offered at ASC, HEC, HPC, OW)

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

Computer/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 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 261 Heating and Humidification Lab ................................ 3
ACR 270 Heat Pump Application ............................................ 3
ACR 271 Heat Pump Application Lab ...................................... 2
Subtotal Credits 42-48
Total Credits 60-66
ACR 103 HVAC Electricity Lab OR ........................................... 2
ACR 130 Refrigeration Fundamentals Lab ................................... 2
ACR 131 Electrical Components .............................................. 2
ACR 170 Heat Load/Duct Design OR ........................................ 3
ACR 209 Manual N Commercial Load Calculations & Design ........... (4)
ACR 250 Cooling and Dehumidification Lab ................................ 2
ACR 251 Cooling and Dehumidification Lab ................................... 2
ACR 260 Heating and Humidification .......................................... 3
ACR 261 Heating and Humidification Lab ..................................... 2
ACR 270 Heat Pump Application AND ......................................... 3
ACR 271 Heat Pump Application Lab OR ........................................ 2
ACR 207 Commercial HVAC Systems .......................................... 2
Electives** .............................................................................. (4-5)
Subtotal Credits ........................................................................... 8-11
Total Credits .............................................................................. 41-49

Certificates

Environmental Control System Servicer - 4702013039
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
ACR 100 Refrigeration Fundamentals .......................................... 3
ACR 101 Refrigeration Fundamentals Lab ....................................... 2
ACR 102 HVAC Electricity AND .................................................. 2
ACR 103 HVAC Electricity Lab OR ............................................. (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 .............................................................................. 25-26

Environmental System Repair Helper - 4702013069
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
ACR 100 Refrigeration Fundamentals .......................................... 3
ACR 101 Refrigeration Fundamentals Lab ....................................... 2
ACR 102 HVAC Electricity AND .................................................. 2
ACR 103 HVAC Electricity Lab OR ............................................. (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 .............................................................................. 9-10

Domestic Air Conditioner and Furnace Installer - 4702013029
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
ACR 100 Refrigeration Fundamentals .......................................... 3
ACR 101 Refrigeration Fundamentals Lab ....................................... 2
ACR 102 HVAC Electricity AND .................................................. 2
ACR 103 HVAC Electricity Lab OR ............................................. (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 261 Heating and Humidification Lab ..................................... 3
ACR 270 Heat Pump Application .................................................. 3
ACR 271 Heat Pump Application Lab ............................................. 2
ACR 290 Journeyman Preparation ................................................ 3
Total Credits .............................................................................. 36-37

Refrigeration Mechanic - 4702013059
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
ACR 100 Refrigeration Fundamentals .......................................... 3
ACR 101 Refrigeration Fundamentals Lab ....................................... 2
ACR 102 HVAC Electricity AND .................................................. 2
ACR 103 HVAC Electricity Lab OR ............................................. (4-5)
ACR 130 Electrical Components .................................................. 3
ACR 131 Electrical Components Lab ............................................ 2
ACR 206 Boilers ........................................................................... 5
ACR 207 Commercial HVAC Systems .......................................... 5
Total Credits .............................................................................. 20

Boiler Maintenance - 4702013079
ACR 100 Refrigeration Fundamentals .......................................... 3
ACR 101 Refrigeration Fundamentals Lab ....................................... 2
ACR 102 HVAC Electricity AND .................................................. 2
ACR 103 HVAC Electricity Lab OR ............................................. 2
ACR 206 Boilers ........................................................................... 5
ACR 207 Commercial HVAC Systems .......................................... 5
Total Credits .............................................................................. 20

Chiller Maintenance - 4702013089
ACR 100 Refrigeration Fundamentals .......................................... 3
ACR 101 Refrigeration Fundamentals Lab ....................................... 2
ACR 102 HVAC Electricity AND .................................................. 2
ACR 103 HVAC Electricity Lab OR ............................................. 2
ACR 208 Chillers ......................................................................... 5
ACR 209 Manual N Load Calculation & Design .............................. 4
Total Credits .............................................................................. 19

American 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, HZC, 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, HZC, SEC)
COM 254 Introduction to Intercultural Communication OR ............ 3
Elective approved by Appalachian Studies Committee and/or designee ... (3)
Total ................................................................................................. 12
Creative Writing Track - 050122302
(Offered at ASC, HZC, 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)

MLI 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)
GLY 101 Physical Geology .......................................................3
GLY 111 Laboratory for Physical Geology ....................................1
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)
ANT 220 Intro to Cultural Anthropology ....................................3
Total 15

Applied Engineering Technology

The Applied Engineering Technology curriculum (AET) introduces students to basic experimental engineering principles and concepts by applying contemporary skills and knowledge in a variety of employment positions based on industry needs. It provides students with a strong foundation of engineering practices to stimulate their interest by using a problem-solving approach in state-of-the-art laboratories. 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 a global market. The degree consists of seven Associate in Applied Science degree tracks: 1) Automated Manufacturing, which emphasizes rapid manufacturing and computer numerical control programming; 2) Electromechanical, which is a multi-disciplinary program combining information technology and electro-mechanical systems (maintenance, electricity, computers, hydraulics/pneumatics, machining or fabrication, diagnostics and repair, etc.); 3) Mechatronics Systems, which is a multi-disciplinary program emphasizing cross-functional knowledge skills in both mechanical and electrical systems; 4) Electronics Engineering, which emphasizes advanced concepts in electronics as it applies to electronic control circuitry and high frequency applications in the digital and microwave communication industry, particularly those driven by military and government contracts; 5) PLC Programmer, which introduces advanced concepts in PLC programming including networking of PLC’s and the writing, debugging, documenting, and implementing of PLC programs utilizing both ladder logic and more advanced languages such as Instruction List, Structured Text, etc.; 6) Instrumentation, which emphasizes process monitoring, control and industrial automation using analog and digital control systems for chemical and manufacturing industries; and 7) Alternative Energy, which emphasizes the practical study and implementation of solar, wind, geo-thermal and bio-fuel technologies.

Associate in Applied Science

Applied Engineering Technology – 1504997029
(Offered at MYC, WKC)

General Education (required for all tracks):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126 Technical Algebra and Trigonometry OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150 OR higher level Quantitative Reasoning course</td>
<td>3</td>
</tr>
<tr>
<td>PHY 171 Applied Physics OR higher level Physics course</td>
<td>4</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Technical Core (required for all tracks):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 100 Introduction to Computers OR demonstrated competency</td>
<td>0-3</td>
</tr>
<tr>
<td>AET 110 Introduction to Circuit Analysis OR</td>
<td>4</td>
</tr>
<tr>
<td>AET 140 Electrical course approved by Program Coordinator</td>
<td>4</td>
</tr>
<tr>
<td>AET 140 Industrial Equipment Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>BRX 120 Basic Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CAD 100 Introduction to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>COM 252 Interpersonal Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 181 Basic Public Speaking</td>
<td>(3)</td>
</tr>
<tr>
<td>FPX 100 Fluid Power</td>
<td>3</td>
</tr>
<tr>
<td>FPX 101 Fluid Power Lab</td>
<td>2</td>
</tr>
<tr>
<td>ISX 101 Introduction to Industrial Safety OR Safety course approved by Program Coordinator</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
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</table>

Automated Manufacturing Track - 150499703
(Offered at MYC, WKC)

<table>
<thead>
<tr>
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<th>Credit</th>
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<tbody>
<tr>
<td>CAD 201 Advanced 3D Modeling</td>
<td>4</td>
</tr>
<tr>
<td>CMM 110 Fundamentals of Machine Tool – A</td>
<td>3</td>
</tr>
<tr>
<td>CMM 130 Manual Programming</td>
<td>3</td>
</tr>
<tr>
<td>CMM 132 CAD/CAM/CNC</td>
<td>3</td>
</tr>
<tr>
<td>CMM 240 Introduction to 3-D Programming</td>
<td>6</td>
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<tr>
<td><strong>Track Total</strong></td>
<td><strong>19</strong></td>
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</tbody>
</table>

Electromechanical Systems Track - 150499704
(Offered at MYC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AET 160 Industrial Controls Electronics</td>
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</tr>
<tr>
<td>EET 268 Rotating Machinery Electrical Motor Controls I</td>
<td>3</td>
</tr>
<tr>
<td>EET 269 Rotating Machinery Electrical Motor Controls I Lab</td>
<td>4</td>
</tr>
<tr>
<td>Programmable Logic Controllers</td>
<td>2</td>
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<tr>
<td>Programmable Logic Controllers Lab</td>
<td>2</td>
</tr>
<tr>
<td>Fundamentals of Process Control</td>
<td>4</td>
</tr>
<tr>
<td><strong>Track Total</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

Mechatronic Systems Track - 150499705
(Offered at MYC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>EET 276 Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 277 Programmable Logic Controllers Lab</td>
<td>2</td>
</tr>
<tr>
<td>MS 110 Mechatronic Systems Electrical Components</td>
<td>4</td>
</tr>
<tr>
<td>MS 120 Mechatronic Systems Mechanical Components</td>
<td>4</td>
</tr>
<tr>
<td>MS 130 Mechatronic Systems Hydraulic/Pneumatic Components</td>
<td>4</td>
</tr>
<tr>
<td>MS 150 Mechatronic Systems Programmable Logic Controllers</td>
<td>4</td>
</tr>
<tr>
<td><strong>Track Total</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

Track Total | 61-64
Electronics Engineering Track - 150499706

(Offered at MYC, WKC)

AET 150 Advanced Circuit Analysis ............................................. 4
AET 160 Industrial Controls Electronics ......................................... 4
AET 170 Digital Circuits and Concepts .......................................... 4
AET 200 Integrated Circuits .......................................................... 4
AET 220 Modulation Techniques and Applications .............................. 4

Track Total 20

PLC Programmer Track - 150499707

(Offered at MYC, WKC)

AET 190 Industrial Computer Programming Concepts ....................... 4
AET 250 PLC Networking .................................................................. 4
AET 260 Robotics and Programmable Controllers .............................. 4
AET 270 Advanced PLC Programming ............................................ 4
EET 276 Programmable Logic Controllers ....................................... 2
EET 277 Programmable Logic Controllers Lab ................................ 2

Track Subtotal 20

Instrumentation Track - 150499708

(Offered at MYC, WKC)

AET 150 Advanced Circuit Analysis ............................................. 4
AET 170 Digital Circuits and Concepts .......................................... 4
AET 200 Integrated Circuits .......................................................... 4
ISM 102 Fundamentals of Instrumentation ..................................... 4
ISM 210 Fundamentals of Process Control ...................................... 4

Track Subtotal 20

Track Total 61-64

Alternative Energy Track - 150499709

(Offered at MYC, WKC)

AET 102 Introduction to Energy, Environment and Society ............... 4
AET 114 Solar and Wind Energy Generation .................................... 4
AET 120 Power Electronics .......................................................... 4
AET 210 Alternative Energy Independent Studies ............................. 4
CHE 140 Introductory General Chemistry .................................... 3
CHE 145 Introductory General Chemistry Lab ................................ 1

Track Subtotal 20

Track Total 61-64

Certificate

Applied Energy – 150499309

(Offered at BLC, BSC, MYC, WKC)

AET 102 Introduction to Energy, Environment and Society ............... 4
AET 114 Introduction to Circuit Analysis OR Electrical course approved by Program Coordinator ................. 4
AET 114 Solar and Wind Energy Generation .................................... 4
MAT 126 Technical Algebra and Trigonometry OR MAT 150 .......................... 3
MAT 150 OR higher level Mathematics course ................................. 3

Approved Technical Elective ......................................................... 3-5

Total 18-20

CAD/CAM Technician – 1504993049

(Offered at MYC, WKC)

BRX 120 Basic Blueprint Reading .................................................. 3
CAD 100 Introduction to Computer Aided Design ........................... 3
CAD 201 Advanced 3D Modeling .................................................. 4
ISX 101 Introduction to Industrial Safety OR Safety course approved by Program Coordinator ..................... 3

MAT 126 Technical Algebra and Trigonometry OR MAT 150 .......................... 3
CMM 130 Manual Programming .................................................. 3
CMM 132 CAD/CAM/CNC .............................................................. 3
CMM 240 Introduction to 3D Programming ..................................... 6

Total 28

Robotics Sensor Technician – 1504993039

(Offered at MYC, WKC)

AET 110 Introduction to Circuit Analysis OR Electrical course approved by Program Coordinator ..................... 4
AET 130 Industrial Sensors ........................................................... 3
AET 260 Robotics and Programmable Controllers .......................... 4
ISX 101 Introduction to Industrial Safety OR Safety course approved by Program Coordinator ..................... 3
MAT 126 Technical Algebra and Trigonometry OR MAT 150 .......................... 3
MAT 150 OR higher level Mathematics course ................................. 3

Total 17

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
ECO 101 Contemporary Economic Issues (Recommended) ................................. (3)
HER 101 Heritage/Humanities ......................................................... 3
COM 252 Introduction to Interpersonal Communication ................................. 3

Subtotal 19

Technical Core Courses

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

Subtotal 29-32
### Chemical/Refinery Operator Track - 410301701
(Offered at ASC, JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>APT 142</td>
<td>4</td>
</tr>
<tr>
<td>APT 144</td>
<td>4</td>
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<tr>
<td>APT 146</td>
<td>2</td>
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<tr>
<td>APT 148</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60-63</strong></td>
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</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>APT 142</td>
<td>4</td>
</tr>
<tr>
<td>APT 154</td>
<td>6</td>
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<tr>
<td>APT 156</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>60-63</strong></td>
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### Lineman Technology Track - 410301703
(Offered at ASC, JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>APT 158</td>
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<tr>
<td>APT 159</td>
<td>4</td>
</tr>
<tr>
<td>EET 150</td>
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<td>EET 151</td>
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<td>APT 258</td>
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<td>APT 259</td>
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### Electives

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>APT 299</td>
<td>(1-6)</td>
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<tr>
<td>COE 199</td>
<td>(1-8)</td>
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<tr>
<td>QMS 101</td>
<td>(3)</td>
</tr>
<tr>
<td>EX 196</td>
<td>(1-6)</td>
</tr>
</tbody>
</table>

### Certificate

#### Chemical/Refinery Operator - 4103013039

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>SFA 101</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>3</td>
</tr>
<tr>
<td>CHE 130</td>
<td>4</td>
</tr>
<tr>
<td>CHE 140/145</td>
<td>(4)</td>
</tr>
<tr>
<td>APT 102</td>
<td>4</td>
</tr>
<tr>
<td>APT 104</td>
<td>3</td>
</tr>
<tr>
<td>APT 108</td>
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</tr>
<tr>
<td>APT 142</td>
<td>4</td>
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<td>APT 144</td>
<td>3</td>
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<td>APT 146</td>
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<tr>
<td>EES 101</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
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### Industrial Worker - 1507013019
(Offered at ASC, JFC, MYC)

<table>
<thead>
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<tbody>
<tr>
<td>SFA 101</td>
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<td><strong>Total</strong></td>
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</table>

### Lineman – 4103013049
(Offered at ASC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
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<tbody>
<tr>
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<tr>
<td>APT 158</td>
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<td>APT 259</td>
<td>4</td>
</tr>
<tr>
<td>APT 202</td>
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### Power Plant Operator - 4103013029

<table>
<thead>
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<th>Course</th>
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<tbody>
<tr>
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<tr>
<td>COM 252</td>
<td>3</td>
</tr>
<tr>
<td>CHE 130</td>
<td>4</td>
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<tr>
<td>CHE 140/145</td>
<td>(4)</td>
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<tr>
<td>APT 102</td>
<td>4</td>
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<tr>
<td>APT 104</td>
<td>3</td>
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<tr>
<td>APT 108</td>
<td>2</td>
</tr>
<tr>
<td>APT 142</td>
<td>4</td>
</tr>
<tr>
<td>APT 154</td>
<td>6</td>
</tr>
<tr>
<td>EES 101</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

### Apprenticeship Studies

This program is designed to complement specialized study in a national or state approved apprenticeship 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 - 4799997010
(Offered at ELC, GTW, JFC, WKC)

**Required:**

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

**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)

- Computer/Digital Literacy .............................................. 0-3
- Construction Documents I ................................................ 3
- Theory and History of Architecture I ............................... 3
- Construction Documents II .............................................. 3
- Building Materials and Construction I .............................. 3
- Building Materials and Construction II ............................... 3
- Introduction to SYMBOLS .............................................. 3
- Computer Aided Drafting I .............................................. 3
- Construction Documents III .............................................. 3
- Structures ........................................................................ 3
- Construction Documents IV .............................................. 3
- Office Practice .............................................................. 3
- Mechanical and Electrical Systems .................................... 3
- Technical Courses ** (see list below) .................................. 10
- Writing I ......................................................................... 3
- Technical Mathematics OR ............................................. (3)
- College Algebra OR ....................................................... (3)
- College Algebra OR ....................................................... (3)
- Other Quantitative Reasoning course approved by program coordinator .................................................. (3)
- Heritage / Humanities .................................................... 3
- Natural Sciences Course .................................................. 3
- Social / Behavioral Sciences Course ................................. 3

Total Credits 65-68

**Technical Courses**

- Selected Topics in Architectural Technology: (Topic) ............................ 1-3
- Visual Composition ................................................................ 3
- Building Codes I ............................................................ 3
- Construction Management .................................................. 3
- Building Codes II ............................................................ 3
- Presentation Techniques ..................................................... 3
- Specifi cation Writing ....................................................... 3
- Computer Aided Drafting II .............................................. 3
- Estimating Techniques ....................................................... 3
- Computer 3D Modeling ..................................................... 3
- Cooperative Education: Arch-Tech .................................... 1-3

Additional Suggested General Education Courses (Not Required)

- Writing II ......................................................................... 3
- Basic Public Speaking ....................................................... 3

Total Credits 27

**Music Technology Track - 501002704**

(Offered at JFC)

- Theory for Non-Music Majors ............................................ 3
- Music Technology I .......................................................... 3
- Music Technology II .......................................................... 3

Total Credits 30

**Theatre Track - 501002705**

(Offered at JFC)

- Introduction to Theatre ..................................................... 3
- Fundamentals of Acting ..................................................... 3

Total Credits 27

**Certificate**

**Arts Administration - 5010023019**

(Offered at JFC)

- Introduction to Arts Administration ........................................ 3
- Fundamentals of Arts Administration .................................... 3
- Principles of Marketing ..................................................... 3
- Basic Public Speaking ....................................................... 3
- Writing I ......................................................................... 3
- Writing II ......................................................................... 3

Subtotal 21

**Studio Art Track - 501002701**

(Offered at JFC)

- Drawing I ......................................................................... 3
- 2-D Design OR ............................................................... 3
- 3-D Design .................................................................... (3)

Subtotal 6

Total Credits 27

**Art History Track - 501002702**

(Offered at JFC)

- Ancient through Medieval Art History .................................. 3
- Renaissance through Modern Art History ............................. 3

Subtotal 6

Total Credits 27

**Music Track - 501002703**

(Offered at JFC)

- Introduction to Music ....................................................... 3
- History and Sociology of Rock and Roll ............................ 3

Subtotal 6

Total Credits 27

**Arts Administration**

The Certificate in Arts Administration prepares students for entry-level management and service positions in local arts institutions, such as museums, cultural centers, orchestras, operas and galleries. This certificate will provide students new to the arts administration field, and individuals already working in the arts, with the needed training and appropriate experience to work in a variety of arts and cultural institutions. Students participating in the Arts Administration Certificate will take core courses in Arts Administration plus a series of English, business and communication courses and choose an arts emphasis in studio art, art history, music, music technology or theatre.
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 track 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 track 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.

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:

Computer/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
AUT 110 Brake Systems ..................................................... 3
AUT 130 Manual Transmissions ........................................... 3
AUT 140 Basic Fuel and Ignition Systems ................................ 3
AUT 142 Emission Systems .................................................. 3
AUT 160 Suspension and Steering ........................................ 3
AUT 180 Automatic Transmission/Transaxle ........................... 3
AUT 240 Computer Control Systems and Diagnosis .................. 3

Total Technical core credits 33-36

Automotive Technician Track - 470604701

(Offered at BLC, BSC, ELC, HZC, JFC, OWC, SKY, WKC)

ADX 121 Basic Automotive Electricity Lab .................................. 2
ADX 151 Engine Repair Lab .................................................. 2
ADX 171 Climate Control Lab .................................................. 1
ADX 261 Electrical Systems Lab ............................................. 2
AUT 111 Brake Systems Lab ................................................... 2
AUT 131 Manual Transmissions Lab ....................................... 2
AUT 141 Basic Fuel and Ignition Systems Lab ........................... 2
AUT 143 Emission Systems Lab ............................................... 2
AUT 161 Suspension and Steering Lab .................................... 2
AUT 181 Automatic Transmission/Transaxle Lab ....................... 2
AUT 241 Computer Control Systems and Diagnosis Lab .......... 2

Subtotal Credits: 21

Total Credits: 69-72

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 I .................................. 3
TEC 100 Communication for Business and Industry OR .......... 3
CMS 152 Writing for Business and Industry ......................... 3

Subtotal Credits: 13

Total Credits: 61-64

Automotive Technician - 4706044019

(Offered at ASC, BLC, 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

General Education Total Credit Hours 6

Technical Core:

Computer/Digital Literacy course OR demonstrated competency ....................................... 0-3
ADX 120 Basic Automotive Electricity ........................................... 3
ADX 121 Basic Automotive Electricity Lab .................................. 2
ADX 150 Engine Repair ..................................................... 3
ADX 151 Engine Repair Lab .................................................. 2
ADX 170 Climate Control ................................................... 3
ADX 171 Climate Control Lab ............................................. 1
ADX 260 Electrical Systems .................................................. 3
ADX 261 Electrical Systems Lab ............................................. 2
AUT 110 Brake Systems ..................................................... 3
AUT 111 Brake Systems Lab ................................................... 2
AUT 130 Manual Transmissions ........................................... 3
AUT 131 Manual Transmissions Lab ....................................... 2
AUT 140 Basic Fuel and Ignition Systems Lab ........................... 3
AUT 141 Basic Fuel and Ignition Systems ................................ 2
AUT 142 Emission Systems .................................................. 3
AUT 143 Emission Systems Lab ............................................. 2
AUT 160 Suspension and Steering ........................................ 3
AUT 161 Suspension and Steering Lab .................................... 2
AUT 180 Automatic Transmission/Transaxle ........................... 3
AUT 181 Automatic Transmission/Transaxle Lab ....................... 2
AUT 240 Computer Control Systems and Diagnosis .................. 3
AUT 241 Computer Control Systems and Diagnosis .................. 2

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:

Computer/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

90
Academic Curricula

Certificate

Certificate in Automotive Air Conditioning Mechanic - 4706043019
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
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<tr>
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<tbody>
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<td>ADX 171 Climate Control Lab</td>
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Automotive Electrician - 4706043039
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ADX 120 Basic Automotive Electricity</td>
<td>3</td>
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<tr>
<td>ADX 121 Basic Automotive Electricity Lab</td>
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<tr>
<td>ADX 260 Electrical Systems</td>
<td>3</td>
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<td>ADX 261 Electrical Systems Lab</td>
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Manual Transmission/Drive Train Technician - 4706043059
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

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<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AUT 130 Manual Transmissions</td>
<td>3</td>
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<td>AUT 131 Manual Transmissions Lab</td>
<td>2</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</table>

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>
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</thead>
<tbody>
<tr>
<td>AUT 180 Automatic Transmission/Transaxle</td>
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<tr>
<td>AUT 181 Automatic Transmission/Transaxle Lab</td>
<td>2</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</tbody>
</table>

Brake Repairer - 4706043069
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
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<tbody>
<tr>
<td>AUT 110 Brake Systems</td>
<td>3</td>
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<tr>
<td>AUT 111 Brake Systems Lab</td>
<td>2</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</tbody>
</table>

Engine Repairer - 4706043089
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>ADX 150 Engine Repair</td>
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<tr>
<td>ADX 151 Engine Repair</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</tr>
</tbody>
</table>

Associate in Applied Science

Aviation Maintenance Technology - 4706087029
(Offered at JFC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE 101 Aviation Math</td>
<td>3</td>
</tr>
<tr>
<td>ATE 102 Introduction to Aviation Maintenance Technology I</td>
<td>3</td>
</tr>
<tr>
<td>ATE 104 Introduction to Aviation Maintenance Technology II</td>
<td>3</td>
</tr>
<tr>
<td>ATE 106 Introduction to Aviation Maintenance Technology III</td>
<td>3</td>
</tr>
<tr>
<td>ATE 108 Introduction to Aviation Maintenance Technology IV</td>
<td>3</td>
</tr>
<tr>
<td>ATE 202 Aircraft Structures I</td>
<td>3</td>
</tr>
<tr>
<td>ATE 204 Aircraft Structures II</td>
<td>3</td>
</tr>
<tr>
<td>ATE 206 Aircraft Structures III</td>
<td>3</td>
</tr>
<tr>
<td>ATE 208 Aircraft Structures IV</td>
<td>3</td>
</tr>
<tr>
<td>ATE 222 Aircraft Systems I</td>
<td>3</td>
</tr>
<tr>
<td>ATE 224 Aircraft Systems II</td>
<td>3</td>
</tr>
<tr>
<td>ATE 226 Aircraft Systems III</td>
<td>3</td>
</tr>
<tr>
<td>ATE 228 Aircraft Systems IV</td>
<td>3</td>
</tr>
<tr>
<td>ATE 242 Aircraft Powerplants I</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</tbody>
</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 course.

Computer literacy must be demonstrated either by competency exam or by completing a computer literacy 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.
### Airframe and Power Plant Maintenance Technician - 4706084049

**General Education: 6 credit hour requirement for diploma**

<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 Humanities/Heritage</td>
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</tr>
<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
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</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
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| 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 |
| ATE 242 | Aircraft Powerplants I | 3 |
| ATE 244 | Aircraft Powerplants II | 3 |
| ATE 246 | Aircraft Powerplants III | 3 |
| ATE 248 | Aircraft Powerplants IV | 3 |
| ATE 252 | Aircraft Powerplant Systems I | 3 |
| ATE 254 | Aircraft Powerplant Systems II | 3 |
| ATE 256 | Aircraft Powerplant Systems III | 3 |
| ATE 258 | Aircraft Powerplant Systems IV | 3 |
|      | **Total Credits** | **76** |

### Power Plant Maintenance Technician - 4706083079

**General Education: 6 credit hour requirement for diploma**

<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 Humanities/Heritage</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><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

| 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 222 | Aircraft Systems I | 3 |
| ATE 224 | Aircraft Systems II | 3 |
| ATE 226 | Aircraft Systems III | 3 |
| ATE 228 | Aircraft Systems IV | 3 |
| ATE 242 | Aircraft Powerplants I | 3 |
| ATE 244 | Aircraft Powerplants II | 3 |
| ATE 246 | Aircraft Powerplants III | 3 |
| ATE 248 | Aircraft Powerplants IV | 3 |
| ATE 252 | Aircraft Powerplant Systems I | 3 |
| ATE 254 | Aircraft Powerplant Systems II | 3 |
| ATE 256 | Aircraft Powerplant Systems III | 3 |
| ATE 258 | Aircraft Powerplant Systems IV | 3 |
|      | **Total Credits** | **37** |

### Notes

- Computer/digital literacy must be demonstrated either by competency exam or by completing a 6 credit hour requirement for diploma.
- Computer/Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.
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, research and development, and regulatory bioscience. 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 method applications, 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 Technician 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. Students enroll in three integrated courses as a cohort, BTN 100, BTN 103, and BTN 104.

The Advanced 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 gain skills required to seek employment at an entry level in performing data acquisition, management, and analysis in laboratory environments. 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.

### Academic Curricula

#### Biotechnology Laboratory Technician

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<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 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>BTN 210</td>
<td>Cell Culture and Function</td>
<td>4</td>
</tr>
<tr>
<td>BTN 220</td>
<td>Immunological Methods</td>
<td>4</td>
</tr>
<tr>
<td>BTN 285</td>
<td>Independent Investigation in Biotechnology</td>
<td>1-3</td>
</tr>
<tr>
<td>BTN 298</td>
<td>Biotechnology Learning Laboratory4 OR</td>
<td>1-8</td>
</tr>
</tbody>
</table>

### Required General Education Courses

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences with Laboratory</td>
<td>4-5</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
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</tr>
<tr>
<td>Written Communication</td>
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**Subtotal: General Education Requirements** 16-17

### Required Technical Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 106</td>
<td>Fundamentals of Scientific Communication</td>
<td>3</td>
</tr>
<tr>
<td>BTN 110</td>
<td>Nucleic Acids</td>
<td>4</td>
</tr>
<tr>
<td>BTN 115</td>
<td>Biomanufacturing</td>
<td>4</td>
</tr>
<tr>
<td>BTN 120</td>
<td>Biofuels</td>
<td>4</td>
</tr>
<tr>
<td>BTN 125</td>
<td>Bioinformatics I</td>
<td>2</td>
</tr>
<tr>
<td>BTN 126</td>
<td>Bioinformatics II</td>
<td>2</td>
</tr>
<tr>
<td>BTN 160</td>
<td>Introduction to Agricultural Biotechnology</td>
<td>4</td>
</tr>
<tr>
<td>BTN 210</td>
<td>Cell Culture and Function</td>
<td>4</td>
</tr>
<tr>
<td>BTN 225</td>
<td>Protein Bioseparation Methods</td>
<td>4</td>
</tr>
<tr>
<td>BTN 295</td>
<td>Independent Investigation in Biotechnology</td>
<td>1-3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Subtotal: Technical Core Requirements** 12-1

### Required Technical Elective Courses

Choose at least 28 credit hours:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 296</td>
<td>Fundamentals of Scientific Communication</td>
<td>3</td>
</tr>
<tr>
<td>BTN 110</td>
<td>Nucleic Acids</td>
<td>4</td>
</tr>
<tr>
<td>BTN 115</td>
<td>Biomanufacturing</td>
<td>4</td>
</tr>
<tr>
<td>BTN 120</td>
<td>Biofuels</td>
<td>4</td>
</tr>
<tr>
<td>BTN 125</td>
<td>Bioinformatics I</td>
<td>2</td>
</tr>
<tr>
<td>BTN 126</td>
<td>Bioinformatics II</td>
<td>2</td>
</tr>
<tr>
<td>BTN 160</td>
<td>Introduction to Agricultural Biotechnology</td>
<td>4</td>
</tr>
<tr>
<td>BTN 210</td>
<td>Cell Culture and Function</td>
<td>4</td>
</tr>
<tr>
<td>BTN 225</td>
<td>Protein Bioseparation Methods</td>
<td>4</td>
</tr>
<tr>
<td>BTN 295</td>
<td>Independent Investigation in Biotechnology</td>
<td>1-3</td>
</tr>
<tr>
<td>BTN 298</td>
<td>Biotechnology Learning Laboratory4 OR</td>
<td>1-8</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Subtotal: Technical Elective Courses** 28

*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 Certificate - 4101013040
(Offered at BLC)

BTN 100 Contextual Science with Laboratory5 ........................................ 4
BTN 103 Contextual Laboratory Language5 ........................................ 3
BTN 104 Contextual Laboratory Calculations5 ........................................ 3
BTN 101 Introduction to Biotechnology .................................................. 1
BTN 106 Fundamentals of Scientific Communications ................................ 3
Digital Literacy Course ......................................................................... 3
Total 17

BTN 100, BTN 103, and BTN 104 must be taken as a cohort.

Basic Biotechnician Certificate - 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
Science6 .......................................................................................... 4-5
Total 16-17

* Science requirement may be satisfied by:
- Completion of the Biotechnology Laboratory Assistant Certificate, or
- Completion of BTN 100, BTN 103, and 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.

Advanced Biotechnician Certificate - 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 Biotechnology7 OR .................... 1-3
BTN 298 Biotechnology Learning Laboratory 7 OR (1-8)
COE 199 Cooperative Education8 ........................................................ (1-3)
Or course approved by the program coordinator ................................ (4-5)
Total 27

Bioinformatics Certificate - 4101013060

BTN 101 Introduction to Biotechnology .................................................. 1
BTN 105 Applied Biotechnology Laboratory Calculations ....................... 3
BTN 125 Bioinformatics I ....................................................................... 2
BTN 126 Bioinformatics II ..................................................................... 2
BTN 201 Biotechnology Techniques I ..................................................... 4
BTN 202 Biotechnology Techniques II .................................................... 4
CIT 149 Java I OR ............................................................................... 3
CS 115 Introduction to Computer Programming OR .............................. (3)
INF 120 Elementary Programming ..................................................... (3)
CIT 170 Database Design Fundamentals OR ........................................ 3
INF 282 Introduction to Databases ....................................................... (3)
CIT 249 Java II OR ............................................................................... 3
CS 215 Introduction to Program Design, Abstraction, and Problem (4)
Solving OR
INF 260 Object Oriented Programming I AND .................................... (3)
INF 260L Object Oriented Programming I Laboratory ....................... (1)
CIT 155 Web Page Development OR .................................................. 3
IMD 133 Beginning Web Design OR ................................................... (3)
INF 286 Introduction to Web Development .......................................... (3)
Total 28-29

Environmental Biotechnician Certificate - 4101013070

BTN 101 Introduction to Biotechnology .................................................. 1
BTN 201 Biotechnology Techniques I ..................................................... 4
BTN 202 Biotechnology Techniques II .................................................... 4
CHE 170 General College Chemistry I .................................................. 3
CHE 175 General College Chemistry Laboratory I ............................... 1
EST 150 Introductory Ecology ................................................................ 4
EST 170 Environmental Sampling Laboratory ....................................... 2
EST 260 Environmental Methods and Analysis Lab ............................... 2
Total 21

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. The 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, OWC)

CMS 105 Multi-Media Production I .......................................................... 3
CMS 141 Communications Practice ....................................................... 4
CMS 155 Introduction to Broadcasting .................................................. 3
CMS 266 Basic Television Production .................................................... 3
COM 249 Mass Media and Mass Culture ............................................. 3
Total 16

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

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.
Three programs are offered under the broader heading of Business Studies. They are Business Administration Systems, Medical Information Technology, and Office Systems Technology.

Business Administration Systems


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 any positions using microcomputer-based systems.
- The Finance Track/Certificate leads to careers in the financial services industry, government lending agencies, and credit companies.
- 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 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/Certificates leads to a career in real estate which may include sales, finance, counseling, development, marketing analysis, valuation, and/or property management.
- The Telecommunication Systems Management Track/Certificate leads to careers in the management and operation of television, radio, teleconferencing facilities, and information systems.
- The Turf Grass / Landscaping Management Track/Certificate prepares the student for careers turf grass management and landscaping operations.

Other Diplomas and Certificates

- The Organization 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 Basic and Advanced Business Administration Certificates are designed to be building blocks to complete the Associate in Applied Science Degree, Business Administration Core courses.
- 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 students in the field of industrial front-line supervision.
- The General Business Certificate prepares the students for a variety positions in supervision, management and general business.
- 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. Also it will 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 Quality Management Certificate prepares the student to analyze and implement systems for continuous improvement of functions and processes in production or service organizations.
- The Sales Certificate prepares the student for a career in sales.
- The Supervisory Management Certificate prepares the students in the field of front-line supervision.
- The Team Leadership Certificate leads to a career in team leadership, supervision and/or management in a variety of different organizations. Modules are available.
### Business Administration Systems - 5202017129

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

#### General Education:

<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>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 101</td>
<td>Contemporary Economic Issues OR</td>
<td></td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics</td>
<td>(3)</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR Higher Quantitative Reasoning</td>
<td>(3)</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td></td>
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**Subtotal 18**

### Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 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>BAS 160</td>
<td>Introduction to Business</td>
<td></td>
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<tr>
<td>BAS 250</td>
<td>Business Employability Seminar</td>
<td>1</td>
</tr>
<tr>
<td>BAS 257</td>
<td>Introduction to Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td></td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting OR</td>
<td></td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I AND</td>
<td>(3)</td>
</tr>
<tr>
<td>ACT 102</td>
<td>Fundamentals of Accounting II</td>
<td>(3)</td>
</tr>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td></td>
</tr>
</tbody>
</table>

**Technical 28-31**

#### Core Subtotal 46-49

### Accounting Track - 520201701

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, MDC, MYC, OWC, SKY, SMC, WKC)

#### Available Completely Online

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACT 281</td>
<td>Individual Taxation</td>
<td></td>
</tr>
<tr>
<td>ACT 286</td>
<td>Financial Accounting Topics</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 277</td>
<td>Managerial Accounting Topics</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>ACT 290</td>
<td>Selected Topics in Accounting (Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>ACT 295</td>
<td>Corporate and Partnership Taxation</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td></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>COE 199</td>
<td>Cooperative Education: (Business Administration) OR</td>
<td>1-3</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship (Business Administration) OR</td>
<td>(1-3)</td>
</tr>
</tbody>
</table>

**Subtotal** 15

**Total Credits 61-64**

### Finance Track - 520201714

(Offered at ASC, HPC, SEC, SMC, WKC)

#### Available Completely Online

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 293</td>
<td>Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Choose 9 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.**

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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BAS 294</td>
<td>Money and Financial Institutions</td>
<td>3</td>
</tr>
<tr>
<td>BAS 295</td>
<td>International Finance</td>
<td></td>
</tr>
<tr>
<td>BAS 299</td>
<td>Selected Topics in Management: (Track Topic)</td>
<td>3</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship OR</td>
<td>1-4</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(1-4)</td>
</tr>
</tbody>
</table>

**Subtotal** 15

**Total Credit Hours 61-64**

### Hospitality Management Track - 520201703

(Offered at BSC, SMC, WKC)

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOS 100</td>
<td>Introduction to Hospitality</td>
<td>3</td>
</tr>
<tr>
<td>CUL 100</td>
<td>Culinary Arts Profession</td>
<td>2</td>
</tr>
<tr>
<td>HOS 282</td>
<td>Tourism Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Choose 9 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses (HOS, CUL, & BAS) as approved by the Business Administration Systems Program Coordinator.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td></td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: Business Administration OR</td>
<td>1-3</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship</td>
<td>(1-3)</td>
</tr>
<tr>
<td>CUL 105</td>
<td>Applied Fundamental of the Culinary Arts Profession</td>
<td>2</td>
</tr>
<tr>
<td>CUL 280</td>
<td>Cost &amp; Control</td>
<td>3</td>
</tr>
<tr>
<td>HOS 160</td>
<td>Security for the Hospitality Industry</td>
<td>3</td>
</tr>
<tr>
<td>HOS 200</td>
<td>Cultural Heritage Tourism</td>
<td>3</td>
</tr>
<tr>
<td>HOS 210</td>
<td>Front Office Management</td>
<td>3</td>
</tr>
<tr>
<td>HOS 220</td>
<td>Housekeeping &amp; Maintenance Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 270</td>
<td>Human Relations Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal Credits 17**

**Total 63-66**

### Human Resource Management Track - 520201715

(Offered at ELC, HEC, MDC, WKC)

**Available Completely Online**

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
</tbody>
</table>

**Choose 9 hours (not duplicated from the core) from the following Approved Technical Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 280</td>
<td>Business Internship OR</td>
<td>1-4</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(1-4)</td>
</tr>
<tr>
<td>BAS 284</td>
<td>Applied Management Skills</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Person &amp; Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>BAS 299</td>
<td>Selected Topics in Management: (Track Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 202</td>
<td>Performance Management</td>
<td>3</td>
</tr>
<tr>
<td>PSY 180</td>
<td>Human Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal 18**

**Total Credits 64-67**
Choose 6 hours from the following Technical Courses. Students may select other courses (CIT & BAS) as approved by the Business Administration Systems Program Coordinator.

**Informatics Track - 520201716**
*(Offered at 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

**Subtotal 18**

**Management Track - 520201708**
*(Offered at ASC, BSC, ELC, GTW, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, WKC)*
*Available Completely Online*

**Required:**
- BAS 212 Introduction to Financial Management OR ............................ 3
- QMS 101 Introduction to Quality Systems OR ........................................ 3
- Second Quantitative Reasoning Course* ........................................... (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**

- ACT 277 Managerial Accounting Topics ........................................... 3
- 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 256 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 202 Performance Management .................................................. 3

**Technical Courses:**

- BAS 120 Personal Finance .................................................................... 3
- CIT 234 Advanced Productivity Software ............................................ 3
- CIT 236 Advanced Data Organization .................................................. 3
- ENG 203 Business Writing OR ............................................................ 3
- ENG 235 Business Writing .................................................................... 3
- COE 199 Cooperative Education: (Business Administration) ............... 1-4
- ECO 150 Introduction to Global Economics .......................................... 3
- ECO 201 Principles of Microeconomics OR ......................................... (1-4)
- ECO 202 Principles of Macroeconomics .............................................. (3)

**Telecommunication Systems Management Track – 520201709**

**Required:**
- CMS 105 Multimedia Production and Applications I .......................... 3
- CMS 205 Multimedia Production and Applications II ........................ 3
- CMS 269 Media Advertising ............................................................... 3
- COM 249 Mass Media/Mass Culture ................................................... 3
- JAT 101 Introduction to Communication Media ................................... 3

**Real Estate Management Track - 520201706**
*(Offered at ASC, BSC, 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

**Subtotal 18**

**Subtotal 17-18**

**Total Credits 63-67**

**Office Systems Track - 520201705**
*(Offered at BSC, GTW, HEC, 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 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
- BAS 280 Business Internship ............................................................ (1-3)
- OST 275 Office Management ............................................................. 3

**Subtotal 18**

**Subtotal 17-18**

**Total Credits 63-67**
### Turf Grass/Landscaping Management Track - 520201707

(Offered at OWC)

<table>
<thead>
<tr>
<th>Required:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>TGM 140</td>
<td>Turf Grass for Golf and Landscaping ........................................... 3</td>
</tr>
<tr>
<td>AGR 125</td>
<td>Introduction to Soils &amp; Fertilizers ........................................... 3</td>
</tr>
<tr>
<td>TGM 210</td>
<td>Turf Grass Science ........................................................................... 3</td>
</tr>
<tr>
<td>HRT 130</td>
<td>Landscape Maintenance ....................................................................... 3</td>
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<tr>
<td>HRT 131</td>
<td>Landscape Maintenance Lab ................................................................ 2</td>
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</table>

### Related Courses

Choose 3 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.

<table>
<thead>
<tr>
<th>Required Technical:</th>
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<tbody>
<tr>
<td>CIT 130</td>
<td>Productivity Software ................................................................... 3</td>
</tr>
<tr>
<td>ACC *201</td>
<td>Financial Accounting OR ......................................................... 3</td>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I AND ............................................. 3</td>
</tr>
<tr>
<td>ACT 102</td>
<td>Fundamentals of Accounting II ................................................... 3</td>
</tr>
<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems .................................................</td>
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</table>

### Required Technical Subtotal

18-24

### Related Courses (Choose 9 credit hours from the following list with Program Coordinator Approval)

<table>
<thead>
<tr>
<th>Required:</th>
<th></th>
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<tbody>
<tr>
<td>BAS 120</td>
<td>Personal Finance ............................................................................ 3</td>
</tr>
<tr>
<td>BAS 267</td>
<td>Introduction to Business Law ......................................................</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management ............................................................</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education ................................................................... 3</td>
</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management ..........................................................</td>
</tr>
<tr>
<td>BAS 260</td>
<td>Professional Development and Protocol .........................................</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship ........................................................................</td>
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</table>

### Total Credits

64-68

### Informatics - 5202014059

(Offered at SMC)

**General Education:**

<table>
<thead>
<tr>
<th>Area 1 =</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I ...................................................................................... 3</td>
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</table>

<table>
<thead>
<tr>
<th>Area 2 =</th>
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<tbody>
<tr>
<td>ECO 101</td>
<td>Contemporary Economics OR ......................................................... 3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics OR ................................................ 3</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics OR ................................................ 3</td>
</tr>
</tbody>
</table>

### Required Technical:

<table>
<thead>
<tr>
<th>Required Technical:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR ..................................................... 3</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems ........................................... 3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business ................................................................</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management ............................................................</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing ...............................................................</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting OR ..............................................................</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I .......................................................</td>
</tr>
<tr>
<td>ACT 102</td>
<td>Fundamentals of Accounting II ......................................................</td>
</tr>
<tr>
<td>IFM 128</td>
<td>Principles of Informatics ................................................................</td>
</tr>
<tr>
<td>CIT 120</td>
<td>Computational Thinking ...................................................................</td>
</tr>
<tr>
<td>CIT 170</td>
<td>Database Design Fundamentals ........................................................</td>
</tr>
<tr>
<td>IFM 215</td>
<td>Information Systems Analysis ........................................................</td>
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</tbody>
</table>

### Required Technical Subtotal

27-30

### Total Credits

39-42

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**Diplomas**

### Accounting - 5202014049

(Offered at BSC, HPC, MYC, OWC, WKC)

#### General Education:

<table>
<thead>
<tr>
<th>Area 1 =</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I ...................................................................................... 3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II OR ............................................................................... 3</td>
</tr>
<tr>
<td>ENG 203</td>
<td>Business Writing OR ..................................................................... 3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology ........................................... 3</td>
</tr>
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</table>

#### Area 2 =

Quantitative Reasoning course ......................................................... 3
(Excluding MAT 205, MAT 306, STA 200, STA 210)

**General Education Subtotal**

12

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**Required Technical:**

<table>
<thead>
<tr>
<th>Required Technical:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IFM 130</td>
<td>Business Data Communication .......................................................</td>
</tr>
<tr>
<td>IFM 235</td>
<td>Information Systems and Business Intelligence .................................</td>
</tr>
<tr>
<td>MGT 258</td>
<td>Project Management ........................................................................</td>
</tr>
<tr>
<td>IFM 111</td>
<td>Client-Side Informatics Software ..................................................</td>
</tr>
<tr>
<td>IFM 225</td>
<td>Advanced Informatics ......................................................................</td>
</tr>
<tr>
<td>IFM 211</td>
<td>Collaboration Software ...................................................................</td>
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</table>

### Approved Technical Subtotal

6

### Total Credits

39-42

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No course can be used to fulfill more than one requirement.
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 101: Contemporary Economics OR ............................ (3)
- ECO 201: Principles of Microeconomics OR ........................ (3)
- ECO 202: Principles of Macroeconomics ............................ (3)

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.

Required Technical:
- CIT 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)

Organizational Leadership - 5202014029
(Offered at ASC, 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 101: Contemporary Economics OR ............................ (3)
- ECO 201: Principles of Microeconomics OR ........................ (3)
- ECO 202: Principles of Macroeconomics ............................ (3)

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.

Required Technical:
- CIT 105: Introduction to Computers OR .............................. 3
- OST 105: Introduction to Information Systems .................... (3)
- BAS 160: Introduction to Business OR ............................... (3)
- BAS 282: Principles of Management ................................. (3)
- BAS 284: Applied Management Skills ............................... (3)
- BAS 287: Supervisory Management ................................... (3)
Required:

ACC 202 Managerial Accounting .............................................. 3
CIT 130 Productivity Software OR ........................................... 3
CIT 234 Advanced Productivity Software OR ......................... (3)
CIT 236 Advanced Data Organization ....................................... (3)
OST 240 Software Integration ................................................ 3
QMS 101 Introduction to Quality Systems ................................... (3)

Approved Technical Courses ................................................. 6
Total Credits ......................................................................... 36-39

*Not allowed as an Approved Technical Course if course has been taken as a required course.

Certificates

Accounting - 5202013119
(Offered at BSC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SEC, SKY, 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.

ACT 196 Payroll Accounting ................................................ 3
ACT 277 Managerial Accounting Topics .................................. 3
ACT 279 Computerized Accounting Systems ........................ 3
ACT 281 Individual Taxation ................................................ 3
ACT 286 Financial Accounting Topics ..................................... 3
ACT 290 Selected Topics in Accounting (Topic) ....................... 1-3
ACT 295 Corporate and Partnership Taxation .......................... 3
BAS 120 Personal Finance .................................................. 3
BAS 212 Introduction to Financial Management ....................... 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

Basic Business Administration - 5202013139
(Offered at ASC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
Available Completely Online

Required:

BAS 160 Introduction to Business ........................................... 3
ENG 101 Writing I ................................................................ 3
CIT 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)
ECO 101 Contemporary Economic Issues OR ....................... 3
ECO 201 Principles of Microeconomics OR ......................... (3)
ECO 202 Principles of Macroeconomics ............................... (3)

Total Credits ......................................................................... 15-18

Business Transfer - 5202013149
(Offered at ASC, BSC, ELC, HEC, HPC, MDC, MYC, OWCC, SEC, SKY, WKC)
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 ......................................................................... 15-18

Entrepreneurship – 5202013379
(Offered at ELC, GTW, HPC, MDC, OWCC, SEC, SMC, WKC)

Required:

ACC 201 Financial Accounting OR ........................................... 3
ACT 101 Fundamentals of Accounting I AND ......................... (3)
ACT 102 Fundamentals of Accounting II ................................ (3)
BAS 170 Entrepreneurship .................................................... 3
BAS 282 Principles of Marketing ............................................ 3
BAS 288 Personal and Organizational Leadership ................... 3

Total Credits ......................................................................... 12-15

Finance - 5202013329
(Offered at ASC, SEC, SMC)

Required:

BAS 293 Principles of Finance ............................................. 3
BAS 212 Introduction to Financial Management ..................... 3

Choose 9 hours from the following Technical Courses.

Students may select other courses as approved by the Business Administration Systems Program Coordinator.

BAS 120 Personal Finance .................................................. 3
BAS 294 Money and Financial Institutions .......................... 3
BAS 295 International Finance ............................................... 3
BAS 299 Selected Topics in Management: (Track Topic) ......... 3
BAS 280 Business Internship OR ........................................ 1-4
COE 199 Cooperative Education ........................................... (1-4)

Total Credits ......................................................................... 15

Financial Perspectives - 5202013159
(Offered at ASC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OWCC, 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 Introductions to Business ........................................... 3
BAS 280 Personal Finance .................................................... 3

Total Credits ......................................................................... 9-12
Required:

BAS 160 Introduction to Business ............................................ 3
CIT 105 Introduction to Computers OR ................................. 3
OST 105 Introduction to Information Systems ......................... 3
ACT 101 Fundamentals of Accounting* ................................. 3
ECO 101 Contemporary Economic Issues OR ....................... 3
ECO 201 Principles of Microeconomics OR ...................... (3)
ECO 202 Principles of Macroeconomics ......................... (3)

Total Credits 12

* ACC 201 may be substituted

Hospitality Management - 5202013179
(Offered at BSC, SEC, SMC, 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 .............................................. (1-3)
BAS 290 Management, Ethics & Society ................................. (1-3)
CUL 200 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, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, 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
CIT 101 Introduction to 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) ............ (1-3)
OST 275 Office Management .............................................. 3
QMS 101 Introduction to Quality Systems ............................... 3
QMS 202 Performance Management .................................... 3
PSY 180 Human Relations ................................................... 3

Total Credits 18

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
OST 105 Introduction to Information Systems ....................... 3

Total Credits 30

Informatics Business Analyst - 5202013459
(Offered at SMC)

Required: Choose 6 hours from the following Courses.

IFM 128 Principles of Informatics ....................................... 3
CIT 120 Computational Thinking ......................................... 3
CIT 170 Database Design Fundamentals ............................... 3
IFM 215 Information Systems Analysis ................................ 3

Total Credits 12

Leadership - 5202013199
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Required:

BAS 288 Personal and Organizational Leadership ..................... 3
BAS 160 Introduction to Business ........................................ 3
ECO 101 Contemporary Economic Issues OR .................. 3
ECO 201 Principles of Microeconomics OR ...................... (3)
ECO 202 Principles of Macroeconomics .............................. (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, OWC, SEC, SKY, SMC, WKC)

Available Completely Online

Required:

BAS 283 Principles of Management ..................................... 3
BAS 212 Introduction to Financial Management OR ............... 3
QMS 101 Introduction to Quality Systems OR ..................... (3)
QMS 202 Performance Management ................................ 3

Total Credits 12
Choose 6 hours from the following Technical Courses.
Students may select other courses as approved by the Business
Administration Systems Program Coordinator.

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<tr>
<td>ACT 277</td>
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<td>BAS 200</td>
<td>Small Business Management</td>
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<td>BAS 256</td>
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<td>BAS 260</td>
<td>Professional Development &amp; Protocol</td>
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<td>BAS 274</td>
<td>Human Resource Management</td>
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<td>BAS 285</td>
<td>Problems in Marketing &amp; Management</td>
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<td>BAS 291</td>
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<td>BAS 299</td>
<td>Selected Topics Management: (Track Topic)</td>
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<tr>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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Office Systems - 5202013219

(Offered at BSC, GTW, HEC, HZC, MDC, SEC, SMC, WKC)

Choose 6 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>OST 160</td>
<td>Records and Database Management</td>
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<td>Selected Topics in Office Systems: (Topic)</td>
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Operations Management - 5202013369

(Offered at GTW, HPC, MYC, SEC, WKC)

Choose 6 hours from the following Approved Technical Courses.
Students may select other courses as approved by the Business
Administration Systems Program Coordinator.

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<td>BAS 287</td>
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<td>BAS 288</td>
<td>Personal &amp; Organizational Leadership OR</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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<tr>
<td>BAS 289</td>
<td>Operations Management</td>
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<td>MFG 256</td>
<td>Production Management</td>
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<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<td>COM 252</td>
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Pre-Licensing Real Estate - 5202013239

(Offered at ASC, BSC, ELC, MDC, MYC, OWC, SEC, SMC, WKC)

Required:

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Quality Management - 5202013229

(Offered at BSC, OWC, SEC, SMC)

Required:

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<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
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<td>QMS 202</td>
<td>Performance Management</td>
<td>3</td>
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Residential Real Estate - 5202013249

(Offered at BSC, GTW, MYC, SEC, WKC)

Required:

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<tr>
<td>REA 100</td>
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Sales - 5202013259

(Offered at BSC, GTW, MYC, OWC, SEC, SMC, WKC)

Required:

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<tr>
<td>BAS 155</td>
<td>Personal Selling</td>
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<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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Payroll Accounting Specialist - 5202013439

(Offers at ASC, BSC, ELC, MDC, MYC, OWC, SEC, SKY, WKC)

Required:

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<tr>
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<tr>
<td>ACC 201</td>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I AND</td>
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<td>ACT 102</td>
<td>Fundamentals of Accounting II</td>
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<td>ACT 196</td>
<td>Payroll Accounting</td>
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<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
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Small Business Management - 5202013269
(Offered at ASC, BSC, ELC, 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
QMS 101 Introduction to Quality Systems OR
Second Quantitative Reasoning Course from General Education ........... (3)
BAS 282 Principles of Marketing ...................................................... (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)
Total Credits 15-18

Supervisory Management - 5202013279
(Offered at ASC, BSC, ELC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
Available Completely Online

Required:
CIT 105 Introduction to Computers .................................................. 3
OST 235 Business Communications Technology ............................... 3
BAS 160 Introduction to Business ..................................................... 3
BAS 287 Supervisory Management ................................................... 3
BAS 274 Human Resource Management ......................................... 3

Choose 6 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.
BAS 283 Principles of Management .................................................. 3
BAS 288 Personal and Organizational Leadership .................................. 3
BAS 290 Management, Ethics & Society ............................................. 3
OST 275 Office Management ............................................................. 3
QMS 101 Introduction to Quality Systems .......................................... 3
Total Credits 21

Team Leadership - 5202013309
(Offered at ASC, BSC, ELC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, 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 & Organizational Leadership .................................. 3
QMS 101 Quality Management Systems ............................................ 3

Choose 3 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator
QMS 202 Performance Management .................................................. 3
BAS 160 Introduction to Business ..................................................... 3
BAS 274 Human Resource Management ........................................... 3
BAS 290 Management, Ethics & Society ............................................ 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 Covered, 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
(Offers at ASC, BLC, BSC, ETC, GTW, 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)
- ACT 101 Fundamentals of Accounting I OR .................................. 3
- ACC 201 Financial Accounting I ............................................... (3)
- MIT 204 Medical Coding ......................................................... 3
- ENG 101 Writing I .................................................................... 3
- BIO 135 Basic Anatomy and Physiology with Laboratory** ............. 4
- ACC 201 Financial Accounting I ............................................... (3)
- MIT 230 Medical Information Management ................................. 3
- MIT 106 Introduction to Medical Transcription .............................. 3
- CIT 240 Software Integration OR ................................................ 3
- MIT 103 Medical Office Terminology OR .................................... (3)
- AHS 115 Medical Terminology OR ............................................ (3)
- CLA 131 Medical Terminology from Greek & Latin ....................... (3)
- MIT 104 Medical Insurance ....................................................... 3
- MIT 217 Medical Office Procedures ............................................. 3
- MIT 227 Medical Office Software ............................................... 3
- MIT 228 Electronic Medical Records ........................................... 3
- MIT 295 Medical Information Technology Capstone ..................... 3

Subtotal 19

**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.

**Technical Core:**
- OST 105 Introduction to Information Systems OR ....................... 3
- CIT 105 Introduction to Computers ............................................ (3)
- OST 110 Document Formatting and Word Processing .................. 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 & Latin ....................... (3)
- MIT 104 Medical Insurance ....................................................... 3
- MIT 217 Medical Office Procedures ............................................. 3
- MIT 227 Medical Office Software ............................................... 3
- MIT 228 Electronic Medical Records ........................................... 3
- MIT 295 Medical Information Technology Capstone ..................... 3

Subtotal 30

**Medical Administrative Track - 510716705**
(Offers at ASC, BLC, BSC, ETC, GTW, 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

Subtotal 15

Total 64

**Medical Coding Track - 510716706**
(Offers at ASC, BLC, BSC, ETC, HPC, HZC, MDC, MYC, OWC, SMC, WKC)

Available Completely Online

- ACT 101 Fundamentals of Accounting I OR .................................. 3
- ACC 201 Financial Accounting I ............................................... (3)
- MIT 204 Medical Coding ......................................................... 3
- MIT 205 Advanced Medical Coding ............................................. 3
- OST 235 Business Communication Technology .......................... 3
- Course Approved by Program Coordinator ................................... 3

Subtotal 15

Total 64

**Electronic Medical Records Track - 510716707**
(Offers at ASC, BLC, BSC, ETC, HPC, HZC, MDC, MYC, OWC, SMC, WKC)

Available Completely Online

- ACT 101 Fundamentals of Accounting I OR .................................. 3
- ACC 201 Financial Accounting I ............................................... (3)
- CIT 170 Introduction to Database Design .................................... 3
- Courses Approved by Program Coordinator ............................... 6

Subtotal 15

Total 64

**Medical Office Management Track - 510716709**
(Offers at ASC, BLC, BSC, ETC, HPC, MDC, MYC, OWC, SMC, WKC)

Available Completely Online

- ACT 101 Fundamentals of Accounting I OR .................................. 3
- ACC 201 Financial Accounting I ............................................... (3)
- OST 235 Business Communications Technology .......................... 3
- BAS 160 Introduction to Business ............................................. 3
- OST 275 Office Management .................................................... 3
- Course Approved by Program Coordinator ................................... 3

Subtotal 15

Total 64

**Medical Transcription Track - 510716708**
(Offers at ASC, BLC, BSC, ETC, HPC, MDC, MYC, OWC, SMC, WKC)

Available Completely Online

- MIT 106 Introduction to Medical Transcription ............................. 3
- MIT 206 Medical Transcription ................................................ 3
- OST 210 Advanced Word Processing Application .......................... 3
- OST 235 Business Communications Technology .......................... 3
- Course Approved by Program Coordinator ................................... 3

Subtotal 15

Total 64

**Diplomas**

**Medical Administrative Assistant - 5107164019**

Available Completely Online

**General Education/Applied Academics**
- BIO 135 Basic Anatomy and Physiology with Laboratory** .............. 4
- OST 108 Editing Skills for Office Professionals OR ........................ (3)
- ENG 101 Writing I ..................................................................... (3)

Subtotal 7

**Technique or Support Courses**
- ACT 101 Fundamentals of Accounting I OR .................................. 3
- ACC 201 Financial Accounting I ............................................... (3)
- OST 110 Document Formatting and Word Processing .................. 3
- OST 213 Business Calculation for Office Professionals OR .......... (3)
- MIT 155 Business Mathematics OR ........................................... (3)
- MIT 217 Medical Office Procedures ............................................. 3
- MIT 227 Medical Office Software ............................................... 3
- MIT 295 Medical Information Technology Capstone ..................... 3

Subtotal 15

Total 42

Available Completely Online

104
### Technical or Support Courses

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<tr>
<td>CIT 105</td>
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<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
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<tr>
<td>OST 210</td>
<td>Advanced Word Processing Application</td>
<td>3</td>
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<tr>
<td>OST 240</td>
<td>Software Integration OR</td>
<td>3</td>
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<tr>
<td>CIT 130</td>
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<td>Medical Office Terminology OR</td>
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**Total 40**

### Medical Unit Coordinator - 5107163019

(Offered at ASC, BLC, BSC, ELC, HZC, MDC, MYC, SEC, SKY, SMC, WKC)

### Available Completely Online

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<td>BIO 135</td>
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<td>OST 108</td>
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**Total 31**

**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.**

### Medical Records Specialist - 5107164069

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, SEC, WKC)

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**Total 30**

### Medical Receptionist - 5107163049

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

### Available Completely Online

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<th>Course Title</th>
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<tbody>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
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<tr>
<td>ENG 101</td>
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<td>Document Formatting and Word Processing</td>
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<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
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**Total 18**

### Medical Coding - 5107163079

(Offered by ASC, BLC, BSC, HZC, HPC, MDC, MYC, OWC, SEC, SKY, WKC)

<table>
<thead>
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<td>Introduction to Information Systems OR</td>
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</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory**</td>
<td>4</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 104</td>
<td>Medical Insurance</td>
<td>3</td>
</tr>
<tr>
<td>MIT 204</td>
<td>Medical Coding</td>
<td>3</td>
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<tr>
<td>MIT 205</td>
<td>Advanced Medical Coding</td>
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<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

**Total 19**

**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.**

### Medical Transcriptionist – 5107163089

(Offered by ASC, BLC, BSC, GTW, HZC, MDC, MYC, OWC, SEC, SKY, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>OST 108</td>
<td>Editing Skills for Office Professionals OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>(3)</td>
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<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Applications</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>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 104</td>
<td>Medical Insurance</td>
<td>3</td>
</tr>
<tr>
<td>MIT 206</td>
<td>Medical Transcription</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
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<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

**Total 24**

### Electronic Health Records Specialist - 5107163069

(Offered by ASC, GTW, MDC, HPC, OWC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 104</td>
<td>Medical Insurance</td>
<td>3</td>
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<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
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<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>3</td>
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<tr>
<td>MIT 227</td>
<td>Medical Office Software</td>
<td>3</td>
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<tr>
<td>MIT 228</td>
<td>Electronic Medical Records</td>
<td>3</td>
</tr>
<tr>
<td>MIT 230</td>
<td>Medical Information Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems OR</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

**Total 28-30**

**Course Approved by Program Coordinator ..................1-3**

**Total 28-30**
Office Systems Technology

The Office Systems Technology program is an integrated curriculum, which prepares graduates at the certificate, diploma, and associate degree level. The Office Systems 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.

Students entering this program will need to have basic computer skills and keyboarding skills. (Refer to Technical Standards for Office Systems Technology Program).

Associate in Applied Science
Office Systems Technology – 5204027039
(Offered at ASC, BLC, ELC, JFC, HPC, MYC, OWC, SKY, SMC, KWC)

General Education:
ENG 101 Writing I ............................................................... 3
MAT 105 Business Mathematics OR ...........................................3
MAT 110 Applied Mathematics OR .............................................3
Higher Level Quantitative Reasoning Course ....................(3)
Heritage/Humanities .......................................................... 3
Oral Communications Course ........................................... 3
Natural Sciences Course ..................................................3-4
Social/Behavioral Sciences Course** .........................3
General Education Credit Hours ........................................... 18-19

Technical Core
OST 105 Introduction to Information Systems ...................... 3
OST 215 Office Procedures ................................................ 3
OST 110 Document Formatting and Word Processing ............. 3
OST 160 Records and Database Management .................... 3
OST 210 Advanced Word Processing Application ............... 3
OST 240 Software Integration ............................................ 3
OST 235 Business Communications Technology ............... 3
OST 275 Office Management ............................................. 3

Technical Core Credit Hours ................................................ 24

**Association of Collegiate Business Schools and Programs (ACBSP) accredited colleges must require Economics.

Administrative Track - 520402701
(Offered at ASC, BLC, ELC, HPC, JFC, MYC, OWC, SKY, SMC)
Available Completely Online

ACT 101 Fundamentals of Accounting I OR ......................... 3
Higher Level Accounting Course ....................................(3)
OST 220 Administrative Office Simulation ......................... 3
OST 225 Introduction to Desktop Publishing ....................... 3

Choose three courses (9 credit hours) approved by program coordinator from the following list:
BAS 160 Introduction to Business ........................................... 3
ENG 102 Writing II .............................................................. 3

BAS 120 Personal Finance ...................................................... 3
OST 255 Introduction to Business Graphics ......................... 3
OST 150 Transcription and Office Technology .................... 3
OST 108 Editing Skills for the Office Professional .......... 3
OST 272 Presentation Graphics ........................................... 3
OST 250 Advanced Desktop Publishing .............................. 3
OST 295 Office Systems Technology Internship OR ............. 3
COE 199 Cooperative Education .........................................(3)

Total Administrative Track Credit Hours 18

Total Credit Hours OST AAS Administrative Track 60-61

Desktop Publishing Track - 520402704
(Available Completely Online)

OST 130 Typography ......................................................... 3
OST 215 Office Procedures ................................................ 3
OST 225 Introduction to Desktop Publishing ....................... 3
OST 250 Advanced Desktop Publishing .............................. 3
OST 255 Introduction to Business Graphics ......................... 3
OST 272 Presentation Graphics ........................................... 3
OST 221 Legal Office Simulations ....................................... 3
OST 220 Administrative Office Simulation ......................... 3
OST 255 Introduction to Business Graphics ......................... 3
OST 272 Presentation Graphics ........................................... 3
OST 295 Office Systems Technology Internship OR ............. 3
COE 199 Cooperative Education .........................................(3)

Total Desktop Publishing Track Credit Hours 20-21

Total Credit Hours OST AAS Desktop Publishing Track 62-64

Financial Assistant Track - 520402703
(Available Completely Online)

ACT 101 Fundamentals of Accounting I OR ......................... 3
Higher Level Accounting Course ....................................(3)
ACT 102 Fundamentals of Accounting II OR ....................... 3
Higher Level Accounting Course ....................................(3)
ACT 279 Computerized Accounting Systems ....................... 3

Choose three courses (9 hours) from the following list:
BAS 160 Introduction to Business ........................................... 3
BAS 225 Introduction to Desktop Publishing ....................... 3
BAS 120 Personal Finance ...................................................... 3
ENG 102 Writing II .............................................................. 3
OST 295 Office Systems Technology Internship OR ............. 3
COE 199 Cooperative Education .........................................(3)

Total Financial Assistant Track Credit Hours 18

Total Credit Hours OST AAS Financial Assistant Track 60-61

Legal Administrative Track - 520402705
(Available at BLC)

ACT 101 Fundamentals of Accounting I OR ......................... 3
Higher Level Accounting ....................................................(3)
BAS 267 Additional Accounting (ACC or ACT) course .......... 3
Introduction to Business Law ............................................... 3
OST 109 Legal Terminology ................................................ 3
OST 221 Legal Office Simulations ....................................... 3
MIT 103 Medical Office Terminology OR ......................... 3
CLA 131 Medical Terminology from Greek and Latin OR ...... 3
AHS 115 Medical Terminology ............................................. 3

Total Legal Administrative Assistant Track Credit Hours 18

Total Credit Hours OST AAS Legal Administrative Track 60-61
Diplomas

Administrative Assistant - 5204024019
(Offered at ASC, BLC, BSC, ELC, JFC, MYC, SKY, SMC)
Available Completely Online

General Education
OST 108 Editing Skills for the Office Professional OR ............... 3
ENG 101 Writing I .............................................................(3)
OST 213 Business Calculations for the Office Professional OR ...... 3
MAT 105 Business Mathematics OR ....................................(3)
Higher Level Quantitative Reasoning Course .........................(3)
Total General Education .................................................. 6

Technical Courses
OST 105 Introduction to Information Systems ..............................3
ACT 101 Fundamentals of Accounting I OR ................................3
OST 110 Transcription and Office Technology ...............................3
OST 160 Records and Database Management .................................3
OST 210 Advanced Word Processing Applications .......................3
OST 215 Office Procedures ....................................................3
OST 225 Introduction to Desktop Publishing .................................3
OST 235 Business Communications Technology .........................3
OST 240 Software Integration ...............................................3
Choose three courses (8-9 hours) from the following list:
BAS 160 Introduction to Business ..............................................3
ENG 102 Writing II .............................................................. 3
BAS 120 Personal Finance .......................................................3
BAS 255 Introduction to Business Graphics ..................................3
OST 108 Editing Skills for the Office Professional .........................3
OST 272 Presentation Graphics ...............................................3
OST 250 Advanced Desktop Publishing .......................................3
OST 295 Office Systems Technology Internship OR .......................3
COE 199 Cooperative Education ...............................................(2-3)
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 OR ............... 3
ENG 101 Writing I .............................................................(3)
OST 213 Business Calculations for the Office Professional OR ...... 3
MAT 105 Business Mathematics OR ....................................(3)
Higher Level Quantitative Reasoning Course .........................(3)
Total General Education .................................................. 6

Technical Courses
OST 105 Introduction to Information Systems ..............................3
ACT 101 Fundamentals of Accounting I OR ................................3
ACT 102 Fundamentals of Accounting II OR .................................3
ACT 129 Computerized Accounting Systems .................................3
OST 110 Document Formatting and Word Processing ................. 3
OST 160 Records and Database Management .................................3
OST 215 Office Procedures ....................................................3
OST 255 Introduction to Business Graphics ..................................3
Higher Level Accounting Course ..............................................(3)
Total Technical Hours ....................................................... 32-33
Total Credit Hours ........................................................... 38-39

Financial Assistant - 5204024049
(Offered at BLC, BSC, ELC, JFC, SKY)
Available Completely Online

General Education
OST 108 Editing Skills for the Office Professional OR ............... 3
ENG 101 Writing I .............................................................(3)
OST 213 Business Calculations for the Office Professional OR ...... 3
MAT 105 Business Mathematics OR ....................................(3)
Higher Level Quantitative Reasoning Course .........................(3)
Total General Education .................................................. 6

Technical Courses
OST 105 Introduction to Information Systems ..............................3
ACT 101 Fundamentals of Accounting I OR ................................3
ACT 102 Fundamentals of Accounting II OR .................................3
ACT 129 Computerized Accounting Systems .................................3
OST 110 Document Formatting and Word Processing ................. 3
OST 160 Records and Database Management .................................3
OST 215 Office Procedures ....................................................3
OST 255 Introduction to Business Graphics ..................................3
Higher Level Accounting Course ..............................................(3)
Total Technical Hours ....................................................... 32-33
Total Credit Hours ........................................................... 39
General Education
OST 108  Editing Skills for the Office Professional- OR 3
ENG 101  Writing I ..........................................................(3)
OST 213  Business Calculations for the Office Professional OR 3
MAT 105  Business Mathematics OR .........................................(3)
Higher Level Quantitative Reasoning Course .................(3)
Total General Education 6

Technical Courses
OST 105  Introduction to Information Systems ..............................3
OST 110  Document Formatting and Word Processing ........................3
OST 160  Records and Database Management ........................................3
OST 210  Advanced Word Processing Applications ..............................3
OST 215  Office Procedures ....................................................3
OST 235  Business Communications Technology ..........................3
OST 240  Software Integration ..................................................3

Choose three courses (9 hours) from the following list:
BAS 160  Introduction to Business ................................................3
ENG 102  Writing II ............................................................3
ENG 120  Personal Finance .......................................................3
OST 255  Introduction to Business Graphics ...................................3
OST 150  Transcription and Office Technology ..............................3
OST 108  Editing Skills for the Office Professional ..............................3
OST 272  Presentation Graphics ..................................................3
OST 295  Office Systems Technology Internship OR .........................3
COE 199  Cooperative Education ...............................................(3)
Total Technical Hours 30

Total Credit Hours 36

Certificates
Administrative - 5204023039
(Offered at ASC, BLC, BSC, ELC, JFC, MYC, SEC, SKY, SMC)
Available Completely Online
OST 108  Editing Skills for the Office Professional OR ........................3
ENG 101  Writing I ................................................................(3)
OST 105  Introduction to Information Systems ..............................3
OST 213  Business Calculations for the Office Professional OR 3
MAT 105  Business Mathematics OR .........................................(3)
Higher Level Quantitative Reasoning Course .................(3)
OST 110  Document Formatting and Word Processing ........................3
OST 108  Editing Skills for the Office Professional ..............................3
OST 160  Records and Database Management ........................................3
OST 225  Introduction to Desktop Publishing .................................3
OST 255  Introduction to Business Graphics ...................................3
Presentation Graphics ......................................................(3)
Total Credit Hours 30

Basic Business Presentation - 5204023119
(Offered at BLC, SEC)
Available Completely Online
OST 105  Introduction to Information Systems ..............................3
OST 108  Editing Skills for the Office Professional OR ........................3
ENG 101  Writing I ............................................................(3)
OST 225  Introduction to Desktop Publishing ...................................3
OST 255  Introduction to Business Graphics ...................................3
OST 272  Presentation Graphics ..................................................3
Total Credit Hours 15

Data Entry Operator - 5204023079
(Offered at ASC, BLC, BSC, HPC, JFC, OWC, SEC, SKY, SMC, WKC)
Available Completely Online
OST 105  Introduction to Information Systems ..............................3
OST 110  Document Formatting and Word Processing ........................3
Total Credit Hours 6

Desktop Publishing - 5204023099
(Offered at BLC, SEC)
Available Completely Online
ENG 101  Writing I OR ..........................................................3
ENG 102  Writing II ............................................................3
ENG 120  Personal Finance .......................................................3
OST 105  Introduction to Information Systems ..............................3
OST 110  Document Formatting and Word Processing ........................3
OST 130  Typography ...........................................................3
OST 160  Records and Database Management ........................................3
OST 225  Introduction to Desktop Publishing .................................3
OST 255  Introduction to Business Graphics ...................................3
Presentation Graphics ......................................................(3)
Total Credit Hours 27

Financial Assistant Clerk - 5204023129
(Offered at BLC, BSC, HPC, JFC, OWC, SEC, SKY)
Available Completely Online
OST 105  Introduction to Information Systems ..............................3
ACT 101  Fundamentals of Accounting I OR .................................3
OST 108  Editing Skills for the Office Professional OR ....................3
ENG 101  Writing I ............................................................(3)
OST 110  Document Formatting and Word Processing ........................3
OST 160  Records and Database Management ........................................3
OST 225  Introduction to Desktop Publishing .................................3
OST 105  Introduction to Information Systems ..............................3
MAT 105  Business Mathematics OR .........................................(3)
Higher Level Quantitative Reasoning Course .................(3)
Total Credit Hours 18

Financial Assistant Trainee - 5204023139
(Offered at BLC, BSC, HPC, JFC, OWC, SEC, SKY)
Available Completely Online
OST 105  Introduction to Information Systems ..............................3
ACT 101  Fundamentals of Accounting I OR .................................3
OST 108  Editing Skills for the Office Professional OR ....................3
ENG 101  Writing I ............................................................(3)
OST 225  Introduction to Desktop Publishing .................................3
OST 255  Introduction to Business Graphics ...................................3
Higher Level Quantitative Reasoning Course .................(3)
Total Credit Hours 12

Financial Record Keeper - 5204023069
(Offered at BLC, BSC, JFC, OWC, SEC, SKY)
Available Completely Online
OST 105  Introduction to Information Systems ..............................3
ACT 101  Fundamentals of Accounting I OR .................................3
OST 108  Editing Skills for the Office Professional OR ....................3
ENG 101  Writing I ............................................................(3)
OST 110  Document Formatting and Word Processing ........................3
OST 112  Financial Management OR ...........................................(3)
Course Approved by Program Coordinator .................(3)
Business Management and Marketing

The Business Management and Marketing 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 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 one of the following tracks: The Management Track prepares the student with broad-based management knowledge and skills, which lead to a variety of positions in organizations. The Marketing and Retailing Track leads to employment in sales, merchandise management, buying, department supervision, or retail management. The Real Estate Management Track leads to a career in real estate, which may include sales, finance, counseling, development market analysis, valuation, and/or property management. The Equine Management Track provides the knowledge and skills students need to take advantage of various employment opportunities within the horse industry. All students must complete the computer/digital literacy requirement as defined by KCTCS before graduating.
### Marketing and Retailing Track - 520201712
(Offered at BLC)

**Required:**
- MKT 155 Personal Selling ........................................... 3
- MKT 290 Advertising and Promotion .................................. 3
- MKT 291 Retail Management ........................................... 3
- MKT 293 Buying and Merchandising ................................... 3
- MGT 267 Introduction to Business Law .............................. 3

**Choose 3 hours from the following:**
- MGT 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 Business Management and Marketing (Track Topic) ........................................... 1-3
- COE 199 Cooperative Education: Business Management and Marketing ......................................................... 1-4
- ECO 202 Principles of Macroeconomics .............................. 3

**Subtotal** 18-19

**Total** 66-67

### Real Estate Management Track – 520201713
(Offered at BLC)

**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 from the following:**
- 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 220 Real Estate Brokerage Management ......................... 3
- COE 199 Cooperative Education: Business Management and Marketing ......................................................... 1-4

**Subtotal** 18-19

**Total** 66-67

### Equine Management Track – 520201710
(Offered at BLC)

**Required:**
- EQM 100 Introduction to Equine Studies ............................. 3
- EQM 120 Introduction to Commercial Breeding Practices ........... 4
- EQM 140 Equine Business Management I ............................. 2
- EQM 240 Equine Business Management II ............................ 2
- EQM 242 Equine Law ..................................................... 3

**Subtotal** 18

**Total** 66

### Certificates

**Equine Management – 5202013399**
(Offered at BLC, HEC)

**Required:**
- EQM 100 Introduction to Equine Studies ............................. 3
- EQM 120 Introduction to Commercial Breeding Practices ........... 4
- EQM 140 Equine Business Management I ............................. 2
- MGT 160 Introduction to Business ..................................... 3
- EQM 240 Equine Business Management II ............................ 2
- EQM 242 Equine Law ..................................................... 3

**Real Estate Pre-Brokerage Management – 5202013409**
(Offered at BLC)

**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:**
- 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 ....................................... 3
- REA 225 Real Estate Financing ........................................... 3

**Subtotal** 9

### Real Estate Pre-Licensing – 5215013029
(Offered at BLC)

**Required:**
- REA 100 Real Estate Principles I ..................................... 3
- REA 120 Real Estate Marketing ......................................... 3

**Total** 6

**Choose two (2) from the following:**
- REA 122 Construction and Blueprints .................................. 3
- REA 220 Brokerage Management ........................................ 3
- REA 225 Real Estate Finance ........................................... 3
- REA 230 Real Estate Law ................................................ 3

**Total** 6

### 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)

**Required**
- ENG 101 Writing I* .................................................. 3
- ENG 102 Writing II* .................................................. 3
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 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 BLC, BSC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education Courses:

Area 1 = Written Communication, Oral Communications, or Humanities* ........................................ 3

Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ........................................ 3

Subtotal 6

Technical Courses:

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

Subtotal 56-59

Recommended Program Electives

CRT 198 Practicum OR ....................................................... (1)
CRT 199 Cooperative Education ........................................... (1)
CRT 298 Advanced Practicum OR ......................................... (2)
CRT 299 Advanced Cooperative Education ............................... (2)

**Certificates**

Automotive Painter - 4706033049

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

Technical Courses:

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

Total Credits 38

Automotive Painter Helper - 4706033029

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

Required:

CRT 100 Introduction to Collision Repair ........................................ 2

Total Credits 14

Collision Repair Helper - 4706033059

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

Required:

CRT 100 Introduction to Collision Repair ........................................ 2

Total Credits 14

Collision Repairer – 4706033109

(Offered at BLC, BSC, GTW, OWC, 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

* Satisfies General Education requirement for AAS degree

**Other course(s) approved by program coordinator
# 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 and 2D and 3D CAD. 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</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
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<tr>
<td>Quantitative Reasoning (MAT 105 excluded)</td>
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<td>Natural Sciences</td>
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<td>Social/Behavioral Sciences</td>
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<td>Heritage/Humanities</td>
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<td>Oral Communications</td>
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### Technical Core:

<table>
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<tbody>
<tr>
<td>Computer/Digital Literacy course OR demonstrated competency</td>
<td>0-3</td>
</tr>
<tr>
<td>CAD 100 Introduction to Computer Aided Design</td>
<td>3</td>
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<tr>
<td>CAD 102 Drafting Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CAD 112 Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>CAD 130 Descriptive Geometry</td>
<td>4</td>
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<tr>
<td>CAD 200 Intermediate Computer Aided Design</td>
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</tr>
<tr>
<td>CAD 201 Parametric Modeling</td>
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</tr>
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**NOTE:** Computer/Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

### Technical Electives:

Choose 19 credits from the technical electives list.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CAD 108 Introduction to Surveying</td>
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</tr>
<tr>
<td>CAD 120 Introduction to Architecture</td>
<td>4</td>
</tr>
<tr>
<td>CAD 150 Programming in CAD</td>
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</tr>
<tr>
<td>CAD 212 Industrial Drafting Processes</td>
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</tr>
<tr>
<td>CAD 222 Mechanical Design</td>
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</tr>
<tr>
<td>CAD 230 Construction Techniques</td>
<td>4</td>
</tr>
<tr>
<td>CAD 240 Advanced Dimensioning and Measurement</td>
<td>4</td>
</tr>
<tr>
<td>CAD 252 Commercial Detailing</td>
<td>4</td>
</tr>
<tr>
<td>CAD 262 Working Drawings</td>
<td>4</td>
</tr>
<tr>
<td>CAD 298 Practicum</td>
<td>1-3</td>
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<td>CAD 299 Cooperative Experience</td>
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**Total Credits:** 48-51

## Certificates

**Computer Assisted Drafter - 1513013059**  
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SMC, WKC)*  
*Available Completely Online*

### General Education:

<table>
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<tbody>
<tr>
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</tr>
<tr>
<td>Quantitative Reasoning (MAT 105 excluded)</td>
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### Technical Core:

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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Computer/Digital Literacy course OR demonstrated competency</td>
<td>0-3</td>
</tr>
<tr>
<td>CAD 100 Introduction to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>CAD 102 Drafting Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CAD 112 Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>CAD 130 Descriptive Geometry</td>
<td>4</td>
</tr>
<tr>
<td>CAD 200 Intermediate Computer Aided Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 201 Parametric Modeling</td>
<td>4</td>
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<tr>
<td><strong>Technical Elective</strong></td>
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**Total Credits:** 30-36
General Education:  
- Written Communication, Oral Communications, or Humanities/Heritage ................................. 3
- Quantitative Reasoning (MAT 105 excluded) .................. 3

Subtotal 6

Technical Core:  
- Computer/Digital Literacy course OR demonstrated competency ........................................... 0-3

CAD 100 Introduction to Computer Aided Design .................. 3
CAD 102 Drafting Fundamentals .................................. 4
CAD 112 Engineering Graphics ........................................ 4
CAD 130 Descriptive Geometry ...................................... 4
CAD 200 Intermediate Computer Aided Design ................. 4

Subtotal 19-22

Total Credits 25-28

Drafter Assistant – 1513013079  
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, OWC, SEC, SMC, WKC)  
Available Completely Online

General Education:  
- Written Communication, Oral Communications, or Humanities/Heritage ................................. 3
- Quantitative Reasoning (MAT 105 excluded) .................. 3

Subtotal 6

Computer/Digital Literacy course OR demonstrated competency ........................................... 0-3

CAD 100 Introduction to Computer Aided Design .................. 3
CAD 102 Drafting Fundamentals .................................. 4
CAD 112 Engineering Graphics ........................................ 4

Subtotal 7-10

Total Credits 13-16

Civil Drafter - 1513013049  
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SMC, WKC)  
Available Completely Online

General Education:  
- Quantitative Reasoning (MAT 105 excluded) .................. 3

Subtotal 3

Technical Core:  
- Computer/Digital Literacy course OR demonstrated competency ........................................... 0-3

CAD 100 Introduction to Computer Aided Design .................. 3
CAD 102 Drafting Fundamentals .................................. 4
CAD 112 Engineering Graphics ........................................ 4
CAD 130 Descriptive Geometry ...................................... 4

Subtotal 15-18

Surveying Core:  
Choose 9-12 hours from the following courses:  
- CAD 108 Introduction to Surveying .................................. 3
- SMT 110 Principles of Surveying .................................... 3
- SMT 130 Land Surveying Graphics .................................. 3
- SMT 160 Construction Surveying ..................................... 3
- SMT 210 Advanced Surveying Measurement ...................... 3
- SMT 220 Surveying Lab .................................................. 3
- SMT 230 Land Boundary Location .................................. 3
- SMT 250 Mine Surveying ................................................. 3

Subtotal 9-12

Total Credits 27-33

Computer and Information Technologies

With tracks in Applications, Information Security, Internet Technologies, Network Administration, Networking Technologies, Programming and Computer Science

This program includes tracks in Applications, Information Security, Internet Technologies, Network Administration, Networking Technologies, and Programming, 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 area networks in medium to large organizations and as 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 program emphasizes computer software development. 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 an 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.

- 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.

Computer Technician Certificate

The Computer Technician Certificate prepares students to design, develop, and maintain computer network and network 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.

Information Security Specialist Certificate

The Information Security Specialist Certificate prepares students for the CCNA exam which is recognized by the computer industry around the world.

Microsoft Network Administrator Certificate

The Microsoft Network Administrator Certificate prepares students to design, develop, and maintain computer networks. 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 prepares students for the CCNA exam which is recognized by the computer industry around the world.

Productivity Software Specialist Certificate

The Productivity Software Specialist Certificate prepares students to design, develop, and maintain computer applications. This certificate consists of the core skills that students need to effectively build and maintain computer applications. In addition, this certificate will provide a way for professionals currently in the industry to update their computer programming skills and for new students to show progress in the CIT program.
Network Technologies Specialist Certificate

The Network Technologies Specialist Certificate offers students the opportunity to earn a credential demonstrating network 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 networking 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.

Social Media Specialist Certificate

The Social Media Specialist Certificate prepares students for careers as social media analyst to leverage social media tools to increase business awareness and presence.

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)

General Education

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<th>Credit Hours</th>
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<tr>
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<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry (or higher)</td>
<td>3</td>
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<tr>
<td>Social/Behavioral Sciences Course</td>
<td>3</td>
<td></td>
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<tr>
<td>Heritage/Humanities Course</td>
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<tr>
<td>Natural Sciences Course</td>
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General Education for Computer Science Track

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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>MAT 174</td>
<td>Calculus</td>
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<tr>
<td>Social/Behavioral Sciences Course</td>
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<td>Heritage/Humanities Course</td>
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<tr>
<td>PHY 231</td>
<td>General University Physics</td>
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<td>PHY 241</td>
<td>General University Physics Laboratory</td>
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Core Requirements

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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
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<td>CIT 111</td>
<td>Computer Hardware and Software</td>
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<tr>
<td>CIT 120</td>
<td>Computational Thinking</td>
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<tr>
<td>CIT 150</td>
<td>Internet Technologies OR</td>
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<tr>
<td>CIT 155</td>
<td>Web Page Development OR</td>
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</tr>
<tr>
<td>CIT 157</td>
<td>Web Site Design and Production</td>
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Subtotal 15
### Applications Track – 110101711
(Offered at ASC, BLC, BSC, HZC, HEC, HPC, JFC, MDC, MYC, OWC, SEC, WKC)

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>3</td>
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<tr>
<td>CIT 234</td>
<td>Advanced Productivity Software</td>
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<tr>
<td>CIT 236</td>
<td>Advanced Data Organization</td>
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<td>CIT 291</td>
<td>CIT Capstone</td>
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### Business Software Specialist

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<td>CIT 232</td>
<td>Help Desk Operations</td>
<td>3</td>
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<tr>
<td>CIT 234</td>
<td>Advanced Productivity Software</td>
<td>3</td>
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<tr>
<td>CIT 236</td>
<td>Advanced Data Organization</td>
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<tr>
<td>CIT 171</td>
<td>SQL I</td>
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### Geographic Information Systems

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<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>
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### Software Support

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<th>Credits</th>
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<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>
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</tr>
<tr>
<td>ENG 102</td>
<td>Writing II OR</td>
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<tr>
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### Computer Science Track - 110101714
(Offered at BLC, BSC, HPC, HZC, MYC)

<table>
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<td>MAT 184</td>
<td>Calculus II</td>
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### Information Security Track - 110101712
(Offered at ASC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SM, WKC)

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<th>Credits</th>
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<tbody>
<tr>
<td>CIT 182</td>
<td>Perimeter Defense</td>
<td>3</td>
</tr>
<tr>
<td>CIT 184</td>
<td>Attacks and Exploits</td>
<td>3</td>
</tr>
<tr>
<td>CIT 217</td>
<td>UNIX/Linux Administration</td>
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### Internet Technologies Track - 110101710
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SM, WKC)

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<tr>
<td>CIT 155</td>
<td>Web page Development (whichever was not taken in core)</td>
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</tr>
<tr>
<td>CIT 157</td>
<td>Web Site Design and Production</td>
<td>3</td>
</tr>
<tr>
<td>CIT 253</td>
<td>Data Drive Web Pages: Topic</td>
<td>3</td>
</tr>
<tr>
<td>CIT 257</td>
<td>Applied Internet Technologies OR</td>
<td>3</td>
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<td>CIT 258</td>
<td>Internet Technologies Seminar</td>
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### Web Programming Specialization Sequence:

<table>
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<th>Course 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>
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### Web Administration Specialization Sequence:

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CIT 219</td>
<td>Internet Protocols</td>
<td>3</td>
</tr>
<tr>
<td>CIT 255</td>
<td>Web Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 261</td>
<td>MS Active Directory Services AND</td>
<td>3</td>
</tr>
<tr>
<td>CIT 213</td>
<td>MS Client/Server Config</td>
<td>3</td>
</tr>
<tr>
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### Network Administration Track - 110101708
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SM, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CIT 213</td>
<td>MS Client/Server Config</td>
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</tr>
<tr>
<td>CIT 214</td>
<td>Server Infrastructure Admin</td>
<td>3</td>
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### Microsoft Windows Administration Specialization Sequence

<table>
<thead>
<tr>
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<tr>
<td>CIT 261</td>
<td>MS Active Directory Services</td>
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<td>CIT 264</td>
<td>MS Server Admin</td>
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### Academic Curricula

#### Cisco Networking Associate – Discovery Specialization Sequence
- **CIT 163** Small – Medium Office or ISP ........................................ 4
- **CIT 164** Introduction to Routing and Switching ................................ 4
- **CIT 165** Network Design and Support ........................................... 4

**Subtotal** 12

#### Network Technologies Track - 110101713
*(Offered at ASC, BLC, HEC, MDC, MYC, OWC)*
- **CIT 219** Internet Protocols .................................................... 3
- **CIT 288** Network Security ...................................................... 3
- **Cisco Course Sequence OR** ......................... 12
  - Approved Level I and Level II Network Technology
  - Approved Level I and Level II Network Technology
  - Approved Level I and Level II Network Technology
  - Approved Level I, II, or III Network Technologies

**Specialization Sequence** ........................................... 4-6

**Track Subtotal** 22-24

**Total** 66-68

#### Programming Track - 110101709
*(Offered at BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)*
- **CIT 130** Productivity Software ................................................ 3
- **CIT 217** SQL I .................................................................... 3
- **CIT 253** Data-Driven Web Pages: Topic ................................... 3

**Subtotal** 15

#### Programming Information Systems Specialization Sequence
- **CIT 160** Intro to Networking Concepts ........................................ 4
- **CIT 161** Networking Fundamentals ............................................ 4
- **CIT 162** Home and Small Office Fundamentals ........................ 4

#### Approved Level I Networking Course*
- **CIT 160** Intro to Networking Concepts ........................................ 4
- **CIT 161** Networking Fundamentals ............................................ 4
- **CIT 162** Home and Small Office Fundamentals ........................ 4

#### Approved Network Elective Course*
- **CIT 163** Small-Medium Business or ISP ..................................... 4
- **CIT 164** Introduction to Routing and Switching ........................ 4
- **CIT 165** Network Design and Support .................................... 4
- **CIT 210** Routing Protocols and Concepts .................................. 4
- **CIT 211** LAN Switching and Wireless ..................................... 4
- **CIT 212** Accessing the WAN .................................................. 4
- **CIT 213** MS Client/Server Config ............................................ 3
- **CIT 214** Server Infrastructure Admin ....................................... 3
- **CIT 217** UNIX/Linux Administration ........................................ 3
- **CIT 218** UNIX/Linux Net Infrastructure ................................... 3
- **CIT 219** Internet Protocols .................................................... 3
- **CIT 260** Network Hardware Installation and Troubleshooting .... 3
- **CIT 261** MS Active Directory Services .................................... 3
- **CIT 262** MS Network Infrastructure ......................................... 3
- **CIT 264** MS Server Administration ......................................... 3
- **CIT 265** MS Applications Servers ........................................... 3
- **CIT 266** MS Enterprise Administration .................................... 3

#### Approved Security Elective Course *
- **CIT 284** Computer Forensics ................................................ 3
- **CIT 285** Windows OS Security ................................................ 3
- **CIT 286** UNIX/Linux OS Security ............................................ 3
- **CIT 287** Cisco OS Security ..................................................... 3
- **CIT 288** Network Security ..................................................... 3

#### Approved Level I Network Technologies Course Sequences*
- **Microsoft Windows Course Sequence I**
  - Any 6 credit hours of course work from the Microsoft Windows Network Specialization Course list ....... 6

#### UNIX/Linux Course Sequence
- **CIT 217** UNIX/Linux Administration AND ................................ 3
- **CIT 218** UNIX/Linux Net Infrastructure ................................... 3

#### Cisco Course Sequence I
- **CIT 210** Routing Protocols and Concepts .................................. 4

#### Security Course Sequence I
- Any 6 credit hours of course work from the Security Specialized Sequence Course list which is not taken as part of another sequence.

#### Approved Level II Network Technology Specialization Sequences*
- **Microsoft Windows Course Sequence II**
  - Any 6 credit hours of course work from the Microsoft Windows Network Specialization Course list (after completing the requirements for the Microsoft Windows Specialization Sequence I) .................. 6

#### UNIX/Linux Course Sequence II
- **CIT 286** UNIX/Linux OS Security ............................................ 3
- **CIT 255** Web Server Administration ......................................... 3
- **CIT 145** Perl I .................................................................... 3

#### Cisco Course Sequence II
- **CIT 211** LAN Switching and Wireless AND ................................ 4
- **CIT 212** Accessing the WAN .................................................. 4

#### Approved Level III Network Technology Specialization Sequences*
- **Internet Servers Administration Course Sequence**
- **CIT 255** Web Server Administration AND .................................. 3
- **CIT 265** MS Applications Servers ........................................... 3

#### Microsoft Windows Course Sequence III
- Any 6 credit hours of course work from the Microsoft Windows Network Course list (after completing the requirements for the Microsoft Windows Sequence II) .................. 6
### Approved Microsoft Windows Network Courses*

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<tbody>
<tr>
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<td>MS Client/Server Config ................................</td>
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<tr>
<td>CIT 261</td>
<td>MS Active Directory Services ................................</td>
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<td>CIT 262</td>
<td>MS Network Infrastructure ................................</td>
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<td>CIT 264</td>
<td>MS Server Administration ................................</td>
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<td>CIT 265</td>
<td>MS Applications Servers ................................</td>
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<tr>
<td>CIT 266</td>
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### Approved Security Sequence Courses*

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<td>CIT 182</td>
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<td>CIT 184</td>
<td>Attacks and Exploits .....................................</td>
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<tr>
<td>CIT 284</td>
<td>Computer Forensics .......................................</td>
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<td>UNIX/Linux OS Security ....................................</td>
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### Approved Level I Programming Language Courses*

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<tr>
<td>CIT 140</td>
<td>JavaScript I .............................................</td>
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<tr>
<td>CIT 141</td>
<td>PHP I ..................................................</td>
</tr>
<tr>
<td>CIT 142</td>
<td>C++ I ...................................................</td>
</tr>
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<td>CIT 145</td>
<td>Perl I ...................................................</td>
</tr>
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<td>CIT 147</td>
<td>Programming I: Language ................................</td>
</tr>
<tr>
<td>CIT 148</td>
<td>Visual Basic I ..........................................</td>
</tr>
<tr>
<td>CIT 149</td>
<td>Java I ...................................................</td>
</tr>
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<td>CIT 171</td>
<td>SQL I ....................................................</td>
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<td>PHP II ..................................................</td>
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<tr>
<td>CIT 242</td>
<td>C++ II ..................................................</td>
</tr>
<tr>
<td>CIT 246</td>
<td>2D Game Development: Language ........................</td>
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<tr>
<td>CIT 247</td>
<td>Programming II: Language ................................</td>
</tr>
<tr>
<td>CIT 248</td>
<td>Visual Basic II ........................................</td>
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<td>CIT 249</td>
<td>Java II ..................................................</td>
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<td>CIT 271</td>
<td>SQL II ...................................................</td>
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### Approved Level III Programming Language Courses*

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<th>Course</th>
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<tr>
<td>CIT 276</td>
<td>3D Game Development: Language ........................</td>
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<tr>
<td>CIT 277</td>
<td>Programming III: Language ................................</td>
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<tr>
<td>CIT 278</td>
<td>Visual Basic III ........................................</td>
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### Approved Level I Web Programming Language Courses*

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CIT 141</td>
<td>PHP I ..................................................</td>
</tr>
<tr>
<td>CIT 148</td>
<td>Visual Basic I ..........................................</td>
</tr>
<tr>
<td>CIT 149</td>
<td>Java I ...................................................</td>
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### Approved Level II Web Programming Language Courses*

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CIT 241</td>
<td>PHP II ..................................................</td>
</tr>
<tr>
<td>CIT 248</td>
<td>Visual Basic II ........................................</td>
</tr>
<tr>
<td>CIT 249</td>
<td>Java II ..................................................</td>
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### Approved Computer Science Sequences:

Offerings vary per college.

### Approved Social Media Courses*

<table>
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<tbody>
<tr>
<td>CIT 151</td>
<td>Social Media I ..........................................</td>
</tr>
<tr>
<td>CIT 152</td>
<td>Social Media Tools and Technologies ..................</td>
</tr>
<tr>
<td>CIT 251</td>
<td>Social Media II .........................................</td>
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### Approved CIT Technical Courses*

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Additional CIT Course(s) EXCEPT CIT 103 ..................</td>
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</table>

*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, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computing ................................</td>
</tr>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software ........................</td>
</tr>
<tr>
<td>CIT 120</td>
<td>Computational Thinking ....................................</td>
</tr>
<tr>
<td>CIT 150</td>
<td>Internet Technologies ....................................</td>
</tr>
<tr>
<td>CIT 170</td>
<td>Database Design Fundamentals ...........................</td>
</tr>
<tr>
<td>CIT 180</td>
<td>Security Fundamentals ....................................</td>
</tr>
<tr>
<td>CIT 160</td>
<td>Intro to Networking Concepts OR .......................</td>
</tr>
<tr>
<td>CIT 161</td>
<td>Network Fundamentals OR ..................................</td>
</tr>
<tr>
<td>CIT 162</td>
<td>Home and Small Office Networks ........................</td>
</tr>
<tr>
<td>CIT 180</td>
<td>Security Fundamentals ....................................</td>
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Total 14

### Productivity Software Specialist - 1101013299

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, WKC)

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computing ................................</td>
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<tr>
<td>CIT 130</td>
<td>Productivity Software ....................................</td>
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<tr>
<td>CIT 234</td>
<td>Advanced Productivity Software ........................</td>
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<tr>
<td>CIT 236</td>
<td>Adv. Data Organization Software ........................</td>
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Total 12

### Computer Support Technician - 1101013329

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, WKC)

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<th>Course</th>
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<tbody>
<tr>
<td>CIT 130</td>
<td>Productivity Software ....................................</td>
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<td>CIT 111</td>
<td>Computer Hardware and Software ........................</td>
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<td>CIT 232</td>
<td>Help Desk Operations ......................................</td>
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<td>CIT 234</td>
<td>Advanced Productivity Software ........................</td>
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<td>CIT 236</td>
<td>Advanced Data Organization Software ..................</td>
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Total 16

### Information Security Specialist - 1101013339

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

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<th>Course</th>
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<tr>
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<td>Security Fundamentals ....................................</td>
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<td>CIT 182</td>
<td>Perimeter Defense ........................................</td>
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<tr>
<td>CIT 184</td>
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<td>CIT 261</td>
<td>Approved Security/Network Admin Elective Courses ....</td>
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Total 19

### Microsoft Network Administrator - 1101013349

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

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 213</td>
<td>MS Client/Server Config ................................</td>
</tr>
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<td>CIT 214</td>
<td>Server Infrastructure Admin OR .......................</td>
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<tr>
<td>CIT 262</td>
<td>MS Network Infrastructure ..............................</td>
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<tr>
<td>CIT 261</td>
<td>MS Active Directory Services ..........................</td>
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<td>CIT 264</td>
<td>MS Server Admin ..........................................</td>
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<tr>
<td>CIT 260</td>
<td>Approved CIT Technical Course ........................</td>
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Total 19
CISCO Networking Associate - 1101013359
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, SEC, SKY, SMC(WK))

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<th>Course Name</th>
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<tr>
<td>CTT 161</td>
<td>Network Fundamentals OR</td>
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<tr>
<td>CTT 162</td>
<td>Home and Small Office Networks</td>
<td>4</td>
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<td>CTT 288</td>
<td>Network Associate Track Course Sequence</td>
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Network Technologies Specialist - 1101013699
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, MDC, MYC, OWC, SEC)

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<td>Internet Protocols</td>
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<td>CTT 288</td>
<td>Network Security</td>
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<tr>
<td>OR</td>
<td>Cisco Course Sequence OR</td>
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<tr>
<td>OR</td>
<td>UNIX/Linux Course Sequence OR</td>
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<tr>
<td>OR</td>
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CISCO Networking Enhanced - 1101013379
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, SEC, SKY, SMC(WK))

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A+ - 1101013389
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC(WK))

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Net+ - 1101013399
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

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Security++ - 1101013409
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC(WK))

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Microsoft Enterprise Administrator - 1101013419
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, WKC)

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<tr>
<td>CTT 213</td>
<td>MS Client/Server Config</td>
<td>3</td>
</tr>
<tr>
<td>CTT 214</td>
<td>Server Infrastructure Admin OR</td>
<td>3</td>
</tr>
<tr>
<td>CTT 262</td>
<td>MS Network Infrastructure OR</td>
<td>3</td>
</tr>
<tr>
<td>CTT 266</td>
<td>MS Active Directory Services</td>
<td>3</td>
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<td>CTT 265</td>
<td>MS Applications Server</td>
<td>3</td>
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<td>CTT 266</td>
<td>MS Enterprise Admin</td>
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<td>CTT 217</td>
<td>Approved CIT Technical Course</td>
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Programming – 1101013429
(Offered at ASC, BLC, BSC, ELC, GTH, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC(WK))

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<td>CTT 120</td>
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<td>CTT 150</td>
<td>Internet Technologies</td>
<td>3</td>
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<tr>
<td>CTT 155</td>
<td>Web Page Development</td>
<td>3</td>
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<tr>
<td>CTT 157</td>
<td>Web Site Design and Production</td>
<td>3</td>
</tr>
<tr>
<td>CTT 171</td>
<td>SQL I</td>
<td>3</td>
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<tr>
<td>CTT 253</td>
<td>Data-Driven Web Pages Topic</td>
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Web Programming – 1101013439
(Offered at ASC, BLC, BSC, ELC, GTH, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC)

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<td>Computational Thinking</td>
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<tr>
<td>CTT 150</td>
<td>Internet Technologies</td>
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<td>CTT 155</td>
<td>Web Page Development</td>
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</tr>
<tr>
<td>CTT 157</td>
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Web Administration – 1101013449
(Offered at ASC, BLC, BSC, ELC, GTH, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC)

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<td>Internet Technologies</td>
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<td>CTT 155</td>
<td>Web Page Development</td>
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<td>CTT 157</td>
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<td>CTT 261</td>
<td>MS Active Directory Services AND</td>
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<td>CTT 213</td>
<td>MS Client/Server Config</td>
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<td>OR</td>
<td>MS Network Infrastructure AND</td>
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<td>OR</td>
<td>MS Client/Server Config</td>
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<td>OR</td>
<td>UNIX/Linux Administration AND</td>
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Social Media Specialist – 1101013469

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<td>CTT 155</td>
<td>Web Page Development</td>
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<td>CTT 151</td>
<td>Social Media I</td>
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<td>CTT 152</td>
<td>Social Media Tools and Technologies</td>
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<td>CTT 251</td>
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<td>BAS 282</td>
<td>Introduction to Marketing</td>
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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.
Computerized Manufacturing & Machining - 4805037019

*Offered at BLC, BSC, ELC, MDC, MYC, OWC, SKY, WKC*

**General Education:**

- **ENG 101** Writing I ................................................................. 3
- **MAT 116** Technical Mathematics OR ................................. 3
- **MAT 126** Technical Algebra and Trigonometry or Higher ......... 3
- **H&H 114** Fundamentals of Heritage/Humanities ................ 3
- **Nat Sci 115** Natural Sciences .................................................. 3
- **S&B 115** Social/Behavioral Sciences ..................................... 3

**Subtotal:** 15

- **Electives (Co-op or Practicum)** .......................................... 1

**Technical:**

- **CMM 110** Fundamentals of Machine Tools A AND ............... 3
- **CMM 112** Fundamentals of Machine Tools B OR .................... 4
- **CMM 114** Fundamentals of Machine Tools .................................. 7
- **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** Intro to Programming & CNC Machines ................. (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** Advanced 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 230** Conversational Programming OR ............................. 3
- **CMM 234** CNC Machines and Coding Practices ...................... (6)
- **CMM 240** Advanced 3-D Code Sequencing and Tool path Production AND ........................................... 3
- **CMM 242** Advanced 3-D Code Sequencing and Macro Systems OR .................. 3
- **CMM 244** Advanced Programming/Setup Practices .................. (6)
- **BRX 110** Basic Blueprint Reading for Machinist ................... 2
- **BRX 210** Mechanical Blueprint Reading for Machinist .......... 2
- **BRX 112** Blueprint Reading for Machinist ............................. (4)

**Subtotal:** 49-52

**Total Credits:** 65-68

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

**Technical:**

- **CMM 110** Fundamentals of Machine Tools A AND ............... 3
- **CMM 112** Fundamentals of Machine Tools B OR .................... 4
- **CMM 114** Fundamentals of Machine Tools .................................. 7
- **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** Advanced 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** Conversational Programming AND ....................... 3
- **CMM 2302** Conversational Editing and Subroutines OR .......... 3
- **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 240** Intro to 3-D Programming OR .................................. (6)
- **CMM 244** Advanced Programming/Setup Practices .................. (6)
- **BRX 110** Basic Blueprint Reading for Machinist ................... 2
- **BRX 210** Mechanical Blueprint Reading for Machinist .......... 2
- **BRX 112** Blueprint Reading for Machinist ............................. (4)

**Subtotal:** 49-52

**Total Credits:** 65-68

***Computerized Manufacturing & Machining - 4805034079***

*Offered at ASC, BLC, BSC, ELC, GTW, JFC, MDC, MYC, OWC, SEC, SMC, WKC*

**General Education:**

**Area 1:**

- **Written Communication, Oral Communications, or Heritage/Humanities** ........................................... 3

**Area 2:**

- **MAT 116** Technical Mathematics OR ................................. 3
- **MAT 126** Technical Algebra and Trigonometry or Higher ......... 3

**Subtotal:** 6

- **Electives (General Education or Technical)** ........................................... 1

**Subtotal:** 1

**Total Credits:** 65-68

**Technical:**

- **CMM 110** Fundamentals of Machine Tools A AND ............... 3
- **CMM 112** Fundamentals of Machine Tools B OR .................... 4
- **CMM 114** Fundamentals of Machine Tools .................................. 7
- **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 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** Advanced 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** Conversational Programming AND ....................... 3
- **CMM 2302** Conversational Editing and Subroutines OR .......... 3
- **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 240** Intro to 3-D Programming OR .................................. (6)
- **CMM 244** Advanced Programming/Setup Practices .................. (6)
- **BRX 110** Basic Blueprint Reading for Machinist ................... 2
- **BRX 210** Mechanical Blueprint Reading for Machinist .......... 2
- **BRX 112** Blueprint Reading for Machinist ............................. (4)

**Subtotal:** 49-52

**Total Credits:** 65-68

**Diploma**

**CNC Machinist - 4805034009**

*Offered at ASC, BLC, BSC, ELC, GTW, JFC, MDC, MYC, OWC, SEC, SMC, WKC*

**General Education:**

**Area 1:**

- **Written Communication, Oral Communications, or Heritage/Humanities** ........................................... 3

**Area 2:**

- **MAT 116** Technical Mathematics OR ................................. 3
- **MAT 126** Technical Algebra and Trigonometry or Higher ......... 3

**Subtotal:** 6

- **Electives (Co-op or Practicum)** ........................................... 1

**Subtotal:** 1

**Technical:**

- **CMM 110** Fundamentals of Machine Tools A AND ............... 3
- **CMM 112** Fundamentals of Machine Tools B OR .................... 4
- **CMM 114** Fundamentals of Machine Tools .................................. 7
- **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 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** Advanced 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** Conversational Programming AND ....................... 3
- **CMM 2302** Conversational Editing and Subroutines OR .......... 3
- **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 240** Intro to 3-D Programming OR .................................. (6)
- **CMM 244** Advanced Programming/Setup Practices .................. (6)
- **BRX 110** Basic Blueprint Reading for Machinist ................... 2
- **BRX 210** Mechanical Blueprint Reading for Machinist .......... 2
- **BRX 112** Blueprint Reading for Machinist ............................. (4)

**Subtotal:** 34-40

**Total Credits:** 41-47

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

### Exploratory Machining I - 4805033199

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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**Total Credits:** 12

### Machine Tool Operator I - 4805033109

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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**Total Credits:** 15-20

### Machine Tool Operator II - 4805033119

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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**Total Credits:** 23-31

### CNC Operator - 4805033129

(Offered at BLC, HPC, JFC, MDC, SEC, SMC, WKC)

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**Total Credits:** 12

### CNC Machines and Coding Practices - 4805033189

(Offered at BLC, SEC)

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<td>CMM 244</td>
<td>Advance Programming/Setup Practices</td>
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**Total Credits:** 18

*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.

### Construction Technology

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:**
- Written Communication ................................................. 3
- Business Mathematics OR Higher level Quantitative Reasoning course ..... 3
- Social/Behavioral Sciences ........................................ 3
- Heritage/Humanities .................................................. 3
- Natural Sciences .......................................................... 3
- Oral Communications .................................................. 3
- Subtotal 18

**Technical Requirements:**
- Digital Literacy or demonstrated competency .................... 0-3
- Blueprint Reading For Construction .................................. 3
- Intro to Construction .................................................. 3
- Intro to Construction Lab ............................................ 1
- Surveying & Foundations ........................................... 3
- Surveying & Foundations Lab ........................................ 2
- Light Frame Construction I .......................................... 3
- Light Frame Const. I-Lab ............................................ 1
- Light Frame Construction II ......................................... 3
- Light Frame Const. II-Lab .......................................... 1
- Light Frame Construction III ......................................... 3
- Light Frame Const. III-Lab ......................................... 2
- Practicum in Construction OR ........................................ 2
- Co-op in Construction ................................................ (2)
- Industrial Safety ...................................................... 3
- Technical Electives* .................................................. 10
- Subtotal 42-45
- Total 60-63

Note: Digital Literacy must be demonstrated either by competency exam or by completing a digital literacy course.

*Technical Electives: (This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Carpentry instructor.)*

**Construction Carpenter - 4602014019**
*(Offered at ASC, BLC, BSC, ELC, JFC, MYC, OWC, SEC, SMC, WKC)*

**General Education Requirements:**
- Written Communication, Oral Communications, or Humanities/Heritage .............. 3
- Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ............... 3
- Subtotal 6

Note: WPP 200 or EFM 100 may be taken for 3 credit hours of Social Interaction to meet the Diploma General Education requirements.

**Technical Requirements:**
- Digital Literacy course OR demonstrated competency .................... 0-3
- Blueprint Reading For Construction .................................. 3
- Intro to Construction .................................................. 3
- Intro to Construction Lab ............................................ 1
- Surveying & Foundations ........................................... 3
- Surveying & Foundations Lab ........................................ 2
- Light Frame Construction I .......................................... 3
- Light Frame Const. I-Lab ............................................ 1
- Light Frame Construction II ......................................... 3
- Light Frame Const. II-Lab .......................................... 1
- Light Frame Construction III ......................................... 3
- Light Frame Const. III-Lab ......................................... 2
- Practical in Construction OR ................................. 2
- Co-op in Construction ................................................ (2)
- Cooperative Education in Construction ................................ 3
- Subtotal 21-24
- Total Credits 27-30

Note: Digital Literacy must be demonstrated either by competency exam or by completing a digital literacy course.

**Certificate - 4602013109**
*(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OWC, SEC, SMC, WKC)*

**General Education Requirements:**
- Written Communication ........................................ 3
- Intro to Construction .................................................. 3
- Intro to Construction Lab ............................................ 1
- Surveying & Foundations ........................................... 3
- Surveying & Foundations Lab ........................................ 2
- Light Frame Construction I .......................................... 3
- Light Frame Const. I-Lab ............................................ 2
- Light Frame Construction II ......................................... 3
- Light Frame Const. II-Lab .......................................... 1
- Light Frame Construction III ......................................... 3
- Light Frame Const. III-Lab ......................................... 2
- Practicum in Construction OR ........................................ 2
- Cooperative Education in Construction ................................ 3
- Subtotal 17
- Total Credits 17

Note: Digital Literacy must be demonstrated either by competency exam or by completing a digital literacy course.
**Construction Forms Helper - 4602013029**
(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<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 150</td>
<td>Construction Formwork</td>
<td>2</td>
</tr>
<tr>
<td>CAR 151</td>
<td>Construction Formwork - Lab</td>
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<tr>
<td></td>
<td>Electives: <em>(Suggested Technical Electives)</em></td>
<td>6</td>
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</tbody>
</table>

**Total Credits 18**

---

**Suggested 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)
- CAR 196 Light Frame Construction II – Ceilings and Roofs…………………(3)
- CAR 197 Light Frame Construction II – Ceilings and Roofs-Lab………(2)
- CAR 198 Special Topics in Construction……………………………(1-6)
- CAR 200 Light Frame Construction III - Exterior and Interior Finish…………………(3)
- CAR 201 Light Frame Construction III – Exterior and Interior Finish-Lab…………………(2)
- CAR 240 Light Frame Construction IV – Cabinetry and Trim…………………(3)
- CAR 241 Light Frame Construction IV – Cabinetry and Trim-Lab…………………(2)

---

**Suggested General Education Electives:**

- TEC 200 Technical Communications…………………(3)
- COM 181 Basic Public Speaking…………………(3)
- COM 252 Intro to Interpersonal Communications…………………(3)
- MAT 105 Business Mathematics…………………(3)
- MAT 110 Applied Mathematics…………………(3)
- MAT 116 Technical Mathematics…………………(3)
- PHX 150 Introductory Physics…………………(3)
- EFM 100 Personal Financial Management…………………(3)
- WPP 200 Workplace Principles…………………(3)

*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 ASC, BLC, BSC, ELC, HPC, JFC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BRX 220</td>
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<td>3</td>
</tr>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
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<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 – Floors and Walls</td>
<td>3</td>
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<tr>
<td>CAR 191</td>
<td>Light Frame Construction I – Floors and Walls-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II – Ceilings and Roofs</td>
<td>3</td>
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<tr>
<td>CAR 197</td>
<td>Light Frame Construction II – Ceilings and Roofs-Lab</td>
<td>2</td>
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<tr>
<td>CAR 200</td>
<td>Light Frame Construction III – Exterior and Interior Finish,</td>
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<tr>
<td>CAR 201</td>
<td>Light Frame Construction III – Exterior and Interior Finish-Lab</td>
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<td>CAR 240</td>
<td>Light Frame Construction IV – Cabinetry and Trim</td>
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<td>CAR 241</td>
<td>Light Frame Construction IV – Cabinetry and Trim-Lab</td>
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**Total Credits 32**

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**Residential Roofer - 4602013069**
(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BRX 220</td>
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<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
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<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
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<td>CAR 196</td>
<td>Light Frame Construction II – Ceilings and Roofs</td>
<td>3</td>
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<tr>
<td>CAR 197</td>
<td>Light Frame Construction II – Ceilings and Roofs-Lab</td>
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**Total Credits 12**

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**Residential Site Layout Assistant - 4602013079**
(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OWC, SEC, SMC, WKC)

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
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<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>
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</table>

**Total Credits 15**

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**Suggested 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)
- BRX 220 Blueprint Reading for Construction…………………(3)
- ISX 100 Industrial Safety…………………(3)
- CAR 140 Construction Surveying and Foundation Systems…………………(3)
- 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)
- CAR 196 Light Frame Construction II – Ceilings and Roofs…………………(3)
- CAR 197 Light Frame Construction II – Ceilings and Roofs-Lab………(2)
- CAR 198 Special Topics in Construction……………………………(1-6)
- CAR 200 Light Frame Construction III – Exterior and Interior Finish…………………(3)
- CAR 201 Light Frame Construction III – Exterior and Interior Finish-Lab…………………(2)
- CAR 240 Light Frame Construction IV – Cabinetry and Trim…………………(3)
- CAR 241 Light Frame Construction IV – Cabinetry and Trim-Lab…………………(2)

---

**Suggested General Education Electives:**

- TEC 200 Technical Communications…………………(3)
- COM 181 Basic Public Speaking…………………(3)
- COM 252 Intro to Interpersonal Communications…………………(3)
- MAT 105 Business Mathematics…………………(3)
- MAT 110 Applied Mathematics…………………(3)
- MAT 116 Technical Mathematics…………………(3)
- PHX 150 Introductory Physics…………………(3)
- EFM 100 Personal Financial Management…………………(3)
- WPP 200 Workplace Principles…………………(3)

*Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.*

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**Rough Carpenter - 4602013089**
(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</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>
<td>3</td>
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<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
</tr>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I – Floors and Walls</td>
<td>3</td>
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<tr>
<td>CAR 191</td>
<td>Light Frame Construction I – Floors and Walls-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II – Ceilings and Roofs</td>
<td>3</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Construction II – Ceilings and Roofs-Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits 22**
Basic Carpenter - 4602013139
(Offered at ASC, BLC, BSC, ELC, HFC, JFC, MYC, OWY, SEC, SMC, WKC)
CAR 136 Intro to Construction .............................................. 3
CAR 127 Intro to Construction Lab .......................................... 2
Electives: (Any five [5] additional credits, program or otherwise) .......... 1
Total Credits 6

Acoustical Carpenter - 4602013119
(Offered at BSC, ELC, JFC, SEC)
INF 205 Introduction to Acoustical Carpentry .......................... 3
INF 211 Advanced Acoustical Carpentry .................................. 2
Electives: *Technical Electives .............................................. 6
Total Credits 11

Dry Waller - 4602013039
(Offered at ASC, ELC, JFC, SEC)
INF 125 Introduction to Drywall ............................................. 2
INF 131 Advanced Drywall ................................................... 2
Electives: *Technical Electives .............................................. 6
Total Credits 10

Painter, Interior Finish - 4602013049
(Offered at ASC, JFC, SEC)
INF 105 Introduction to Painting ........................................... 2
INF 111 Advanced Painting .................................................. 2
Electives: *Technical Electives .............................................. 6
Total Credits 7

Painter, Paper Hanger - 4602013129
(Offered at ASC, JFC, SEC)
INF 105 Introduction to Painting ........................................... 2
INF 111 Advanced Painting .................................................. 2
INF 115 Introduction to Wallcovering ................................... 2
INF 121 Advanced Wallcovering ........................................... 2
Total Credits 10

Green Building Technology - 4602013159
(Offered at ASC, JFC, OWY, SEC, WKC)
BRX 220 Blueprint Reading for Construction ......................... 3
CAR 270 Green Building ....................................................... 3
CAR 126 Introduction to Construction .................................... 3
CAR 127 Introduction to Construction Lab ................................ 1
Electives (*Suggested Technical Electives) ............................ 10
Total Credits 20

*Suggested Technical Electives:
Select a minimum of 10 credit hours. (This list is not all inclusive. Other courses may be taken as approved by Construction Technology Instructor.)

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 nail technicians.

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 estheticians.

Diploma

Cosmetologist - 1204014019
(Offered at ASC, BLC, BSC, GTW, HZC, JFC, 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

NOTE: Documentation of computer/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

Electives:
COS 135 Individual Requirements I .................................... 1-8
COS 235 Individual Requirements II .................................... 1-8

Total Credits 60
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 have evolved from jobs with minimal requirements to employment positions that require complex knowledge and skills. The Criminal Justice Program Curriculum provides the student with a foundation of theory, principles, and techniques employed by the criminal justice agencies of employment.

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.

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 Justice Program requirements (as identified by the Criminal Justice KCTCS Curriculum Committee), and graduation of the AAS Criminal Justice Degree or program certificate(s) will not be issued to the student.

Failure to complete required Criminal Justice Program requirements (as identified by the Criminal Justice KCTCS Curriculum Committee), and graduation of the AAS Criminal Justice Degree or program certificate(s) will not be issued to the student.

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.

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.
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 Criminalology ............................... 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: 3

Technical Elective .................................................. 0-3
Subtotal: 0-3

Total Credits 60-63

Law Enforcement Track - 430103702

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, 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 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 Criminalology ............................... 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 60-63

Corrections Track - 430103703

(Offered at ASC, BLC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC)

Required:
CRJ 102 Introduction to Corrections ................................. 3

Subtotal: 3

Track Electives: (Choose 6 credit hours from the following courses)
CRJ 208 Delinquency and the Juvenile Justice System .......... 3
CRJ 203 Community Corrections/Probation & Parole .............. 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 60-63

Security and Loss Prevention Track - 430103704

(Offered at ASC, BLC, ELC, GTW, HPC, HZC, JFC, MDC, 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 60-63

Certificates

Computer Forensics - 4301033019

(Offered ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SMC, WKC)

CRJ 100 Introduction to Criminal Justice OR ......................... 3
CRJ 203 Criminal Investigations ....................................... 3
CRJ 220 Introduction to Computer Forensics ......................... 3
CRJ 225 Driving and Traffic Enforcement for Law Enforcement .4
CRJ 230 Criminal Justice Courtroom Procedures .................... 3
CTT 105 Introduction to Computers ................................... 3
CTT 106 Computer Hardware and Software ........................ 4
CTT 160 Introduction to Networking Concepts OR ................. 4
CTT 161 Network Fundamentals ....................................... 4
CTT 180 Security Fundamentals ....................................... 3

Total: 23

Criminal Justice Core – 4301033029

(Offered ASC, BLC, ELC, GTW, HPC, 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, BSC, ELC, GTW, HPC, 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, MYC, SEC, SMC, WKC)

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<thead>
<tr>
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<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CRJ 215</td>
<td>Introduction to Law Enforcement</td>
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<tr>
<td>CRJ 218</td>
<td>Police Supervision</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 204</td>
<td>Criminal Investigations (OR)</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 201</td>
<td>Introduction to Criminalistics</td>
<td>(3)</td>
</tr>
<tr>
<td>CRJ 211</td>
<td>Liability and Legal Issues</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 208</td>
<td>Delinquency and Juvenile Justice System</td>
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<td><strong>15</strong></td>
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Security and Loss Prevention – 4301033059
(Offered ASC, BSC, BLC, ELC, GTW, HPC, MYC, SEC, SMC, WKC)

<table>
<thead>
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<th>Title</th>
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<tr>
<td>CRJ 110</td>
<td>Principles of Asset Protection</td>
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</tr>
<tr>
<td>CRJ 210</td>
<td>Physical Security Technology &amp; Systems</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 211</td>
<td>Liability and Legal Issues</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 240</td>
<td>Introduction to Corporate Security</td>
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<tr>
<td>CRJ 220</td>
<td>Introduction to Computer Forensics</td>
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Advance Law Enforcement – 4301033069

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<tr>
<td>CRJ 215</td>
<td>Introduction to Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 107</td>
<td>Introduction to Firearms</td>
<td>1</td>
</tr>
<tr>
<td>CRJ 108</td>
<td>Advanced Firearms and Less Than Lethal Weapons</td>
<td>4</td>
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<tr>
<td>CRJ 219</td>
<td>Police Recruit Defensive Tactics</td>
<td>4</td>
</tr>
<tr>
<td>CRJ 224</td>
<td>Basic Traffic Collision Investigation</td>
<td>4</td>
</tr>
<tr>
<td>CRJ 225</td>
<td>Driving and Traffic Enforcement for Law Enforcement</td>
<td>4</td>
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<tr>
<td><strong>Total:</strong></td>
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</table>

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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td><strong>General Education</strong></td>
<td></td>
<td><strong>18</strong></td>
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<tr>
<td>Quantitative Reasoning</td>
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<td></td>
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<tr>
<td>Natural Sciences</td>
<td>3</td>
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</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Written Communication</td>
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<td></td>
</tr>
<tr>
<td>Oral Communications</td>
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<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>CUL 111</td>
<td>Garde Manger</td>
<td>4</td>
</tr>
<tr>
<td>CUL 200</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 211</td>
<td>Basic Food Production</td>
<td>4</td>
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<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>
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<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>
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<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>CUL 285</td>
<td>Front of the House OR</td>
<td>3</td>
</tr>
<tr>
<td>CUL 290</td>
<td>Front of the House/Catering</td>
<td>(4)</td>
</tr>
<tr>
<td><em>Computer/Digital Literacy</em></td>
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Food and Beverage Management Degree Track - 120503703
(Offered at ASC, JFC, MYC, SKY, SMC, WKC)

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<thead>
<tr>
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<th>Title</th>
<th>Hours</th>
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<tbody>
<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>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
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<td><strong>61-66</strong></td>
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Catering and Personal Chef Degree Track - 120503701
(Offered at ASC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 220</td>
<td>Advanced Baking and Pastry Arts</td>
<td>4</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship OR</td>
<td>3</td>
</tr>
<tr>
<td>CUL 295</td>
<td>Doing Business as a Personal Chef OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business AND</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</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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<td><strong>Total Hours</strong></td>
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Diplomas

Culinary Arts - 1205034029
(Offered at ASC, BSC, ELC, JFC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td><strong>General Education</strong></td>
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<tr>
<td>Written/Oral Communications, Humanities, or Heritage</td>
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<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>6</strong></td>
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</tbody>
</table>

* 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPP 200</td>
<td>Workplace Principles (Area 2) OR</td>
<td>3</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management (Area 2)</td>
<td>(3)</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications (Area 1)</td>
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</tbody>
</table>
Technical or Support Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CUL 220</td>
<td>Advanced Baking and Pastry Arts</td>
<td>4</td>
</tr>
<tr>
<td>CUL 260</td>
<td>International Cuisine</td>
<td>4</td>
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<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>
</tr>
</tbody>
</table>

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*

| 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 160</td>
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<td>BAS 170</td>
<td>Entrepreneurship OR</td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
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<tr>
<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
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<tr>
<td>CUL 299</td>
<td>Culinary Arts Cooperative Education Experience</td>
<td>2-3</td>
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</table>

Technical/Support Total 43-48

Catering and Personal Chef - 1205034019
(Offered at ASC, BSC, ELC, MYC, SKY, 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 220</td>
<td>Advanced Baking and Pastry Arts</td>
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</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship AND</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business AND</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 298</td>
<td>Practicum Experience OR</td>
<td>2-3</td>
</tr>
<tr>
<td>CUL 299</td>
<td>Cooperative Education Experience</td>
<td>2-3</td>
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<td>Technical Support Total</td>
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Total Hours 49-54

Catering - 1205033059
(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</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 Introduction to Culinary Arts</td>
<td>2</td>
</tr>
<tr>
<td>CUL 111</td>
<td>Garde Manger</td>
<td>4</td>
</tr>
<tr>
<td>CUL 200</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 299</td>
<td>Front of the House/Catering</td>
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Total Hours 16

Advanced Catering - 1205033079
(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 211</td>
<td>Basic Food Production</td>
<td>4</td>
</tr>
<tr>
<td>CUL 220</td>
<td>Advanced Baking and Pastry Arts</td>
<td>4</td>
</tr>
<tr>
<td>CUL 240</td>
<td>Meats, Seafood, Poultry</td>
<td>4</td>
</tr>
<tr>
<td>CUL 260</td>
<td>International Cuisine</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>BAS 170</td>
<td>Entrepreneurship OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business AND</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
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Total Hours 16

Culinary Arts - 1205033049
(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

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<tr>
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<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 100</td>
<td>Culinary Arts Technical Core</td>
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</table>

Total Hours 32-36

Advanced Culinary Arts - 1205033069
(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CUL 100</td>
<td>Culinary Arts Degree Track</td>
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</table>

Total Hours 42-47

Food and Beverage Management - 1205033039
(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts OR</td>
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</tr>
<tr>
<td>CUL 105</td>
<td>Applied Fundamentals of the Culinary Arts Profession</td>
<td>2</td>
</tr>
<tr>
<td>CUL 200</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>
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</table>

Total Hours 31-34

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

Certificates

Fundamentals of Culinary Arts - 1205033029
(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</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 Introduction to Culinary Arts</td>
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<td>CUL 111</td>
<td>Garde Manger</td>
<td>4</td>
</tr>
<tr>
<td>CUL 200</td>
<td>Sanitation and Safety</td>
<td>2</td>
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</tbody>
</table>

Advanced Food and Beverage Management - 1205033089
(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

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<th>Course Title</th>
<th>Hours</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 111</td>
<td>Garde Manger</td>
<td>4</td>
</tr>
<tr>
<td>CUL 200</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>
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</table>
Culinary Arts Professional Development - 1205033099
(Offered at SKY, SMC, WKC)

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>CUL 240 Meats, Seafood, and Poultry</td>
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</tr>
<tr>
<td>CUL 270 Human Relations Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280 Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>CUL 285 Front of the House OR</td>
<td>3</td>
</tr>
<tr>
<td>CUL 290 Front of the House/Catering</td>
<td>4</td>
</tr>
<tr>
<td>BAS 160 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170 Entrepreneurship OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CUL 298 Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
</tr>
<tr>
<td>CUL 299 Culinary Arts Cooperative Education Experience</td>
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Total Hours 43-45

Recommended Electives (Not Required)

<table>
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<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>DHP 130 Dental Hygiene II</td>
<td>3</td>
</tr>
<tr>
<td>DHP 131 Oral Biology II</td>
<td>5</td>
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<tr>
<td>DHP 135 Dental Radiology</td>
<td>3</td>
</tr>
<tr>
<td>DHP 136 Periodontics I</td>
<td>2</td>
</tr>
<tr>
<td>DHP 220 Dental Hygiene III</td>
<td>3</td>
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<tr>
<td>DHP 222 Special Needs Patients</td>
<td>3</td>
</tr>
<tr>
<td>DHP 224 Dental Materials</td>
<td>2</td>
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<tr>
<td>DHP 226 Periodontics II</td>
<td>2</td>
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<td>DHP 230 Dental Hygiene IV</td>
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<td>DHP 235 Principles of Practice</td>
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<tr>
<td>DHP 238 Community Dental Health</td>
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</table>

Subtotal Credits 39

Total Program Credits 68

Baking-1205033109
(Offered at ASC, MTC, SMC, WKC)

<table>
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<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CUL 100 Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>CUL 105 Applied Introduction to Culinary Arts</td>
<td>(2)</td>
</tr>
<tr>
<td>CUL 200 Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 215 Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>CUL 220 Advanced Baking</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours 12

Recommended Electives (Not Required)

<table>
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<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>DHP 229 Local Anesthesia</td>
<td>(2)</td>
</tr>
<tr>
<td>DHP 299 Independent Study Dental Hygiene</td>
<td>(1-4)</td>
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<tr>
<td>ENG 102 Writing II</td>
<td>(3)</td>
</tr>
<tr>
<td>NFS 101 Human Nutrition and Wellness</td>
<td>(3)</td>
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</tbody>
</table>

*Prerequisites apply

Associate in Applied Science

Dental Hygiene - 5106027019
(Offered at BLC)

General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIO 137 Human Anatomy &amp; Physiology I*</td>
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</tr>
<tr>
<td>BIO 139 Human Anatomy &amp; Physiology II*</td>
<td>4</td>
</tr>
<tr>
<td>BIO 226 Principles of Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
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<td>Written Communication</td>
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<td>Oral Communications</td>
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Subtotal Credits 29

Technical Courses

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>DHP 120 Dental Hygiene I**</td>
<td>4</td>
</tr>
<tr>
<td>DHP 121 Oral Biology I</td>
<td>3</td>
</tr>
<tr>
<td>DHP 122 Dental Nutrition</td>
<td>2</td>
</tr>
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</table>

Dental Assisting/Dental Hygiene Integrated Program

The Dental Assisting/Dental Hygiene Integrated Program is a program that prepares graduates to function as dental auxiliaries.

The Dental Assisting Program prepares the student to function effectively as an integral member of the dental health team and to perform chairside assisting and related office and laboratory procedures under the direction and supervision of a dentist. The curriculum includes content areas in general studies, biomedical sciences, dental sciences, clinical sciences, radiography, and clinical experience. Students must achieve a minimum grade of “C” in each Dental Assisting/Dental Hygiene Integrated Program course, and approved science courses. Upon completion of the program, students are eligible to take the Dental Assisting National Board Examination to become a Certified Dental Assistant.

The Dental Hygiene Program prepares the student to function as a dental hygienist on a dental team under the 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.

NFS 101 Human Nutrition and Wellness............. (3)
Dental Laboratory Technology

This program prepares individuals to fabricate dental prosthetic appliances that replace or repair natural teeth to help patients eat, chew, talk, and smile as well as, or better than, they did before. Dental technicians work collaboratively with dentists by following a written work authorization that details the type of prosthesis needed. Dental technicians do not have direct contact with the patient but instead use stone models made from impressions of the patient’s teeth and surrounding soft tissues.

The curriculum includes courses in general education and in dental laboratory technology as required by the Commission on Dental Accreditation. The curriculum includes lectures and extensive laboratory experiences to enhance the students’ learning.

The dental laboratory technician has many employment options including commercial dental laboratories, dental offices that have their own laboratories, dental sales and manufacturing firms. Graduates may also choose to own a laboratory, state laws permitting, or seek a teaching position at a dental technology education program.

Dental Laboratory Technology students completing the first year of the curriculum will earn a Certificate in Dental Laboratory Technology which prepares students for employment as entry-level dental technicians.

Dental Laboratory Technology students completing two years of the curriculum will earn an Associate Degree in Applied Science which will prepare graduates for employment as technicians and graduates are eligible to take the National Board for Certification Recognized Graduate Examination and the Certified Dental Technician exam.

Applicants are accepted into the Program each fall according to the Guidelines for Admission to the Dental Laboratory Technology Program. This is a selective admissions process with approximately twenty students accepted each year. Students must maintain technical standards and a minimum GPA of at least a 2.0 (on a 4.0 scale) in the curriculum in order to progress from one semester to the next.

The Dental Laboratory Technology program is accredited by the Commission on Dental Accreditation of the American Dental Association.

For more information, visit the Dental Laboratory Technology program web site at bluegrass.kctcs.edu.

Associate in Applied Science

Dental Laboratory Technology - 5106037019

(Offered at BLC)
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 vascular ultrasound. 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 track (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 computer/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.

Associate in Applied Science

Diagnostic Medical Sonography - 5109107019

(Offered at ASC, HZC, JFC, SKY, WKC)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 150</td>
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<tr>
<td>ENG 101</td>
<td>3</td>
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<tr>
<td>BIO 137</td>
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</tr>
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<td>PHY 152</td>
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<td>PHY 171</td>
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Subtotal 19-24

General/Vascular Track – 510910703

(Offered at JFC, SKY)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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<td>1</td>
</tr>
<tr>
<td>NAA 100</td>
<td>3</td>
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<tr>
<td>DMS 111</td>
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<td>DMS 112</td>
<td>2</td>
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<td>DMS 115</td>
<td>6</td>
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<td>DMS 116</td>
<td>6</td>
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<td>DMS 121</td>
<td>6</td>
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<td>DMS 199</td>
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<tr>
<td>DMS 202</td>
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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
A total of 17 credit hours must be completed from the following clinical courses: 17

<table>
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<tr>
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<tr>
<td>DMS 118</td>
<td>Vascular Sonography I</td>
<td>7</td>
</tr>
<tr>
<td>DMS 121</td>
<td>Sonography Physics and Instrumentation</td>
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</tr>
<tr>
<td>DMS 131</td>
<td>Vascular Clinical Education I</td>
<td>4</td>
</tr>
<tr>
<td>DMS 199</td>
<td>Online Physics Review AND</td>
<td>1</td>
</tr>
<tr>
<td>DMS 204</td>
<td>Online Vascular Review</td>
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</tr>
<tr>
<td>DMS 206</td>
<td>Online Vascular Sonography III</td>
<td>3</td>
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<td>DMS 236</td>
<td>Vascular Clinical Education II</td>
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*Required by Owensboro CTC.

Vascular Track – 510910704
(Offered at JFC)

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<th>Course Title</th>
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<tr>
<td>AHS 120</td>
<td>Medical Terminology</td>
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<tr>
<td>DMS 117</td>
<td>Vascular Sonography I</td>
<td>7</td>
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Cardiac Track – 510910702
(Offered at ASC, JFC)

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<td>Medical Terminology</td>
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<tr>
<td>CHE 140</td>
<td>Introduction General Chemistry</td>
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<tr>
<td>DMS 105</td>
<td>Cardiac Sonography I</td>
<td>13</td>
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<td>DMS 145</td>
<td>Cardiac Sonography II</td>
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<td>DMS 205</td>
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<td>DMS 215</td>
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<td>Cardiac Sonography IV</td>
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Certificates

Basic Vascular Technology – 5109103019
(Offered at SKY, WKC)

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Cardiac – 5109103029
(Offered at JFC)

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<tbody>
<tr>
<td>CHE 140</td>
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<td>DMS 205</td>
<td>Cardiac Sonography II</td>
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<td>DMS 215</td>
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General - 5109103039
(Offered at JFC)

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<td>Abdominal Sonography</td>
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<tr>
<td>DMS 116</td>
<td>OB/GYN Sonography</td>
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<td>Online Abdomen Review</td>
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<td>DMS 202</td>
<td>Online OB/GYN Review</td>
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A total of 17 credit hours must be completed from the following clinical courses: 17

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</tr>
<tr>
<td>DMS 230</td>
<td>Clinical Education II</td>
<td>5-8</td>
</tr>
<tr>
<td>DMS 240</td>
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Vascular – 5109103049
(Offered at JFC)

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<tr>
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<td>DMS 121</td>
<td>Sonography Physics and Instrumentation</td>
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<td>DMS 136</td>
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</tr>
<tr>
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<td>Online Physics Review AND</td>
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<td>DMS 204</td>
<td>Online Vascular Review</td>
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<tr>
<td>DMS 206</td>
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<td>DMS 236</td>
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<tr>
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Basic Cardiac Ultrasound Technology - 5109103059
(Offered at SKY)

<table>
<thead>
<tr>
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<tr>
<td>DMS 217</td>
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Diesel Technology

Diesel Technology - 4706057039
(Offered at ELC, HPC, OWC, SEC)

General Education:

<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>Basic Electricity for Non-Majors AND</td>
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</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>3</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>
</tr>
<tr>
<td>ADX 170</td>
<td>Climate Control</td>
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<tr>
<td>ADX 171</td>
<td>Climate Control Lab</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
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</tr>
<tr>
<td>DIT 110</td>
<td>Introduction to Diesel Engines AND</td>
<td>3</td>
</tr>
<tr>
<td>DIT 111</td>
<td>Introduction to Diesel Engines Lab OR</td>
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</tr>
<tr>
<td>ADX 150</td>
<td>Engine Repair AND</td>
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</tr>
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<td>ADX 151</td>
<td>Engine Repair Lab</td>
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<tr>
<td>DIT 112</td>
<td>Diesel Engine Repair</td>
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</tr>
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<td>DIT 113</td>
<td>Diesel Engine Repair Lab</td>
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</tr>
<tr>
<td>DIT 140</td>
<td>Hydraulics AND</td>
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</tr>
<tr>
<td>DIT 141</td>
<td>Hydraulics Lab OR</td>
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</tr>
<tr>
<td>FPX 100</td>
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</tr>
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<td>FPX 101</td>
<td>Fluid Power Lab</td>
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</tr>
<tr>
<td>DIT 150</td>
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Technical Core:

<table>
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<th>Course Title</th>
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<tbody>
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<td>Basic Electricity for Non-Majors AND</td>
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</tr>
<tr>
<td>BEX 101</td>
<td>Basic Electricity Lab for Non-Majors OR</td>
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<tr>
<td>ADX 120</td>
<td>Basic Automotive Electricity AND</td>
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<td>ADX 121</td>
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<td>ELT 110</td>
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<td>ADX 171</td>
<td>Climate Control Lab</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
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<tr>
<td>DIT 110</td>
<td>Introduction to Diesel Engines AND</td>
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<tr>
<td>DIT 111</td>
<td>Introduction to Diesel Engines Lab OR</td>
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<td>Hydraulics AND</td>
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<td>DIT 141</td>
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<tr>
<td>DIT 150</td>
<td>Power Trains</td>
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</tbody>
</table>

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)
**Academic Curricula**

### General Education

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Written Communication, Oral Communications, or Humanities/Heritage</th>
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<tbody>
<tr>
<td>Area 2</td>
<td>Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning</td>
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**Subtotal**: 6

### Technical Courses

- **Computer/Digital Literacy course OR demonstrated competency**: 0-3
- **ADX 170**: Climate Control Lab | 3 |
- **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 | 3 |
- **ELT 110**: Circuits I | (2) |
- **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 | 3 |
- **DIT 112**: Diesel Engine Repair | (2) |
- **DIT 113**: Diesel Engine Repair Lab | 2 |
- **DIT 121**: Introduction to Maintenance-Welding Lab OR | 3 |
- **IMT 100**: Welding for Maintenance AND | (3) |
- **IMT 101**: Welding for Maintenance Lab OR | (2) |
- **WLD 120**: Shielded Metal Arc-Welding (SMAW) AND | (3) |
- **WLD 121**: Shielded Metal Arc-Welding (SMAW) Lab | (2) |
- **DIT 140**: Hydraulics AND | 3 |
- **DIT 141**: Hydraulics Lab OR | 2 |
- **FPX 100**: Fluid Power AND | (2) |
- **FPX 101**: Fluid Power Lab | 3 |
- **DIT 150**: Power Trains | (2) |
- **DIT 151**: Power Trains Lab | 2 |
- **DIT 152**: Powertrain for Construction Equipment | 2 |
- **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 OR | 2 |
- **ADX 260**: Electrical Systems AND | (3) |
- **ADX 261**: Electrical Systems Lab | (2) |

**Subtotal**: 44-49

**Total**: 50-55

### Construction Equipment Technician - 4706054019

*(Offered at ASC, BSC, HPC, MYC, OWC, SEC, SMC, WKC)*

**General Education**

- **Area 1**: Written Communication, Oral Communications, or Humanities/Heritage | 0-3 |
- **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 Lab | 3 |
- **BEX 100**: Basic Electricity for Non-Majors AND | 3 |
- **BEX 101**: Basic Electricity Lab for Non-Majors OR | 2 |
- **DIT 190**: Electrical Systems for Diesel Equipment AND | 3 |
- **DIT 191**: Electrical Systems for Diesel Equipment Lab OR | 2 |
- **DIT 299**: Cooperative Education II | (Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce) | 2 |

### DIT 180 Brakes

<table>
<thead>
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<th>Credit Hours</th>
<th>Requirement</th>
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### DIT 190 Electrical Systems for Diesel Equipment AND

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### DIT 191 Electrical Systems for Diesel Equipment Lab OR

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### ADX 260 Electrical Systems AND

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<tbody>
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### ADX 261 Electrical Systems Lab

<table>
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<tbody>
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</table>

**Subtotal**: 39

**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.
Certificate

Medium and Heavy Truck Technician - 4706054049
(Offered at ASC, BSC, ELC, GTW, MYC, 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 OR ......................... 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 OR .... 2
ADX 260 Electrical Systems AND ...................................... (3)
ADX 261 Electrical Systems Lab ........................................ (2)
Subtotal 47-52
Total 53-58

Recommended Technical Electives (Program Coordinator Approval required)
DIT 180 Brakes ............................................................ 3
DIT 181 Brakes Lab ......................................................... 2
DIT 160 Steering and Suspension ....................................... 3
DIT 161 Steering and Suspension Lab .................................. 2
DIT 121 Introduction to Maintenance Welding Lab OR ........ 3
IMT 100 Welding for Maintenance AND ............................ (3)
IMT 101 Welding for Maintenance Lab OR ......................... (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 152 Powertrain for Construction Equipment .......... 3
DIT 153 Powertrain for Construction Equipment Lab .......... 2
DIT 105 Mechanical Concepts OR ................................... 1
PMX 100 Precision Measurement ..................................... (3)
DIT 193 Special Problems I ............................................. 1
DIT 195 Special Problems II ............................................ 3
DIT 197 Special Problems III .......................................... 3
DIT 198 Practicum ......................................................... 1
DIT 298 Practicum II ...................................................... 2
DIT 199 Cooperative Education ....................................... 1
DIT 299 Cooperative Education II ................................... (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
(Offers at ASC, BSC, HPC, MYC, OW C, SEC, SMC, WKC)

General Education
ADX 150 Engine Repair AND ........................................... 3
ADX 151 Engine Repair Lab OR ....................................... 2
DIT 110 Introduction to Diesel Engines AND .......................... (3)
DIT 111 Introduction to Diesel Engines Lab ......................... (2)
ADX 260 Electrical Systems AND ...................................... 3
ADX 261 Electrical Systems Lab ........................................ 2
DIT 190 Electrical Systems for Diesel Equipment AND ........ 3
DIT 191 Electrical Systems for Diesel Equipment 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
WLD 120 Shielded Metal Arc Welding (SMAW) AND ............ 3
WLD 121 Shielded Metal Arc Welding (SMAW) Lab ............. 2
DIT 123 Undercarriage Lab ............................................. 3
DIT 152 Powertrain for Construction Equipment .......... 3
DIT 153 Powertrain for Construction Equipment Lab .......... 2
DIT 105 Mechanical Concepts OR ................................... 1
PMX 100 Precision Measurement ..................................... (3)
DIT 193 Special Problems I ............................................. 1
DIT 195 Special Problems II ............................................ 3
DIT 197 Special Problems III .......................................... 3
DIT 198 Practicum ......................................................... 1
DIT 298 Practicum II ...................................................... 2
DIT 199 Cooperative Education ....................................... 1
DIT 299 Cooperative Education II ................................... (Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)

Construction Equipment Mechanic Helper - 4706053019
(Offers at ASC, BSC, HZC, MYC, OW C, SEC, SMC, WKC)

General Education
ADX 150 Engine Repair AND ........................................... 3
ADX 151 Engine Repair Lab OR ....................................... 2
DIT 110 Introduction to Diesel Engines AND .......................... (3)
DIT 111 Introduction to Diesel Engines Lab ......................... (2)
ADX 260 Electrical Systems AND ...................................... 3
ADX 261 Electrical Systems Lab ........................................ 2
DIT 190 Electrical Systems for Diesel Equipment AND ........ 3
DIT 191 Electrical Systems for Diesel Equipment 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
WLD 120 Shielded Metal Arc Welding (SMAW) AND ............ 3
WLD 121 Shielded Metal Arc Welding (SMAW) Lab ............. 2
DIT 123 Undercarriage Lab ............................................. 3
DIT 152 Powertrain for Construction Equipment .......... 3
DIT 153 Powertrain for Construction Equipment Lab .......... 2
DIT 105 Mechanical Concepts OR ................................... 1
PMX 100 Precision Measurement ..................................... (3)
DIT 193 Special Problems I ............................................. 1
DIT 195 Special Problems II ............................................ 3
DIT 197 Special Problems III .......................................... 3
DIT 198 Practicum ......................................................... 1
DIT 298 Practicum II ...................................................... 2
DIT 199 Cooperative Education ....................................... 1
DIT 299 Cooperative Education II ................................... (Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)

Total 20

Construction Equipment Mechanic Helper - 4706053019
(Offers at ASC, BSC, HZC, MYC, OW C, SEC, SMC, WKC)

General Education
ADX 150 Engine Repair AND ........................................... 3
ADX 151 Engine Repair Lab OR ....................................... 2
DIT 110 Introduction to Diesel Engines AND .......................... (3)
DIT 111 Introduction to Diesel Engines Lab ......................... (2)
ADX 260 Electrical Systems AND ...................................... 3
ADX 261 Electrical Systems Lab ........................................ 2
DIT 190 Electrical Systems for Diesel Equipment AND ........ 3
DIT 191 Electrical Systems for Diesel Equipment 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
WLD 120 Shielded Metal Arc Welding (SMAW) AND ............ 3
WLD 121 Shielded Metal Arc Welding (SMAW) Lab ............. 2
DIT 123 Undercarriage Lab ............................................. 3
DIT 152 Powertrain for Construction Equipment .......... 3
DIT 153 Powertrain for Construction Equipment Lab .......... 2
DIT 105 Mechanical Concepts OR ................................... 1
PMX 100 Precision Measurement ..................................... (3)
DIT 193 Special Problems I ............................................. 1
DIT 195 Special Problems II ............................................ 3
DIT 197 Special Problems III .......................................... 3
DIT 198 Practicum ......................................................... 1
DIT 298 Practicum II ...................................................... 2
DIT 199 Cooperative Education ....................................... 1
DIT 299 Cooperative Education II ................................... (Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)

Total 23

Certificate
Diesel Engine Mechanic - 4706053079
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

DIT 110 Introduction to Diesel Engines AND ........................................3
DIT 111 Introduction to Diesel Engines Lab OR ....................................2
DIT 150 Engine Repair AND ................................................................(3)
DIT 151 Engine Repair Lab ....................................................................(2)
DIT 112 Diesel Engine Repair ...............................................................3
DIT 113 Diesel Engine Repair Lab ..........................................................2
Electives (Diesel Courses/Industrial Education Core) .......................2
Total ......................................................................................................12

Diesel Mechanics Assistant - 4706053189
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

DIT 103 Preventive Maintenance Lab ..................................................2
DIT 110 Introduction to Diesel Engines ................................................3
DIT 111 Introduction to Diesel Engines Lab ..........................................2
DIT 112 Diesel Engine Repair ................................................................3
DIT 113 Diesel Engine Repair Lab .........................................................2
DIT 160 Steering and Suspension ..........................................................3
DIT 161 Steering and Suspension Lab ....................................................2
DIT 180 Brakes ....................................................................................3
DIT 181 Brakes Lab .............................................................................2
DIT 190 Electrical Systems for Diesel Equipment ..................................3
DIT 191 Electrical Systems for Diesel Equipment Lab .........................2
Total ......................................................................................................27

Diesel Steering & Suspension Mechanic - 4706053179
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

DIT 160 Steering and Suspension .........................................................3
DIT 161 Steering and Suspension Lab ....................................................2
Electives (Diesel Courses/Industrial Education Core) .......................7
Total ......................................................................................................12

Electrical/Electronics Systems Mechanic - 4706053059
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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)
ENGT 110 Circuits I .............................................................................(5)
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 OR ...................................................2
DIT 190 Electrical Systems for Diesel Equipment AND .....................(3)
DIT 191 Electrical Systems for Diesel Equipment Lab .........................(2)
DIT 112 Diesel Engine Repair .............................................................3
DIT 113 Diesel Engine Repair Lab .........................................................2
DIT 160 Steering and Suspension ..........................................................3
DIT 161 Steering and Suspension Lab ....................................................2
DIT 180 Brakes ....................................................................................3
DIT 181 Brakes Lab .............................................................................2
Total ......................................................................................................30

Fluid Power Mechanic - 4706053119
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

FPX 100 Fluid Power OR ......................................................................3
DIT 140 Hydraulics .............................................................................(3)
FPX 101 Fluid Power Lab OR ...............................................................2
DIT 141 Hydraulics Lab .......................................................................(2)
Electives (Diesel Courses/Industrial Education Core) .......................7
Total ......................................................................................................12

Heavy Duty Brake Mechanic - 4706053039
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

DIT 180 Brakes ....................................................................................3
DIT 181 Brakes Lab .............................................................................2
Electives (Diesel Courses/Industrial Education Core) .......................7
Total ......................................................................................................12

Heavy Duty Drive Train Mechanic - 4706053089
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

DIT 150 Power Trains ..........................................................................3
DIT 151 Power Trains Lab .................................................................2
Electives (Diesel Courses/Industrial Education Core) .......................7
Total ......................................................................................................12

Medium and Heavy Truck Mechanic Helper - 4706053149
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

ADX 120 Basic Automotive Electricity AND .........................................3
ADX 121 Basic Automotive Electricity Lab OR ......................................2
BEX 100 Basic Electricity for Non-Majors AND ..................................(3)
BEX 101 Basic Electricity Lab for Non-Majors OR .................................(2)
ELT 110 Circuits I .................................................................................(5)
DIT 150 Engine Repair AND ...............................................................3
DIT 151 Engine Repair Lab OR ............................................................2
DIT 110 Introduction to Diesel Engines AND .......................................(3)
DIT 111 Introduction to Diesel Engines Lab ..........................................(2)
ADX 260 Electrical Systems AND ........................................................3
ADX 261 Electrical Systems Lab OR ....................................................2
DIT 190 Electrical Systems for Diesel Equipment AND .....................(3)
DIT 191 Electrical Systems for Diesel Equipment Lab .........................(2)
DIT 112 Diesel Engine Repair .............................................................3
DIT 113 Diesel Engine Repair Lab .........................................................2
DIT 160 Steering and Suspension ..........................................................3
DIT 161 Steering and Suspension Lab ....................................................2
DIT 180 Brakes ....................................................................................3
DIT 181 Brakes Lab .............................................................................2
Total ......................................................................................................30

Mobile Air Conditioning Mechanic - 4706053169
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

ADX 170 Climate Control .....................................................................3
ADX 171 Climate Control Lab ...............................................................1
Electives (Diesel Courses/Industrial Education Core) .......................8
Total ......................................................................................................12

Preventive Maintenance Mechanic - 4706053199
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

DIT 103 Preventive Maintenance Lab ..................................................2
Electives (Diesel Courses/Industrial Education Core) .......................11
Total .....................................................................................................13

Undercarriage Mechanic - 4706053099
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

DIT 123 Undercarriage Lab .................................................................3
Electives (Diesel Courses/Industrial Education Core) .......................9
Total .....................................................................................................12

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>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DGD 131</td>
<td>3D Texturing and Lighting I</td>
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<tr>
<td>DGD 132</td>
<td>Introduction to Digital 3D Graphics</td>
<td>3</td>
</tr>
<tr>
<td>DGD 231</td>
<td>3D Texturing and Lighting II</td>
<td>3</td>
</tr>
<tr>
<td>DGD 232</td>
<td>3D Character Development</td>
<td>3</td>
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<tr>
<td>DGD 233</td>
<td>3D Character Rigging</td>
<td>3</td>
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<td>DGD 234</td>
<td>3D Animation</td>
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<tr>
<td>DGD 235</td>
<td>3D Special Effects</td>
<td>3</td>
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<tr>
<td>DGD 236</td>
<td>Game Engines I</td>
<td>3</td>
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<tr>
<td>DGD 237</td>
<td>Game Engines II</td>
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**Education**

The Associate in Applied Science Degree (AAS) in Education, Teacher Preparation, is a track 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. The Associate in Applied Science Certificate program is designed to prepare students to successfully complete the Kentucky Paraeducator Assessment or Kentucky Department of Education approved alternative assessment. Paraeducators who wish to earn a two-year degree may complete the (AAS) Teacher Associate track. Associate in Applied Science.

### Associate in Applied Science

**Education - 131501701**

(Offered at BLC, ELC, HPC, JFC, OWC, SEC, SMC)

#### General Education

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<td>Writing I</td>
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</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>HIS 108</td>
<td>History of the United States Through 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIS 109</td>
<td>History of the United States Since 1865</td>
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</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
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<td>MA 109</td>
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<td>MA 111</td>
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#### Technical Core or Support Core (Common)

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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>EDU 201</td>
<td>An Introduction to American Education</td>
<td>3</td>
</tr>
<tr>
<td>EDP 202</td>
<td>Human Development and Learning</td>
<td>3</td>
</tr>
<tr>
<td>EDP 203</td>
<td>Teaching Exceptional Learners in Regular Classrooms</td>
<td>3</td>
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#### Technical or Support Courses

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<tr>
<td>EDU 120</td>
<td>Child and Adolescent Development</td>
<td>3</td>
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<tr>
<td>EDU 130</td>
<td>Introduction to Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU 140</td>
<td>Introduction to Behavior Management</td>
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</table>

**Total Credit Hours 63 - 64**

1. At least one course must be selected from the identified Cultural Studies course list.
2. Must include at least one Science course with a laboratory experience.
3. Successfully passing the computer/digital competency exam will satisfy this requirement. If the computer/digital competency exam is successfully completed, the student must take three (3) credit hours of coursework approved by the program coordinator.

### Teacher Prep Track - 131501702

(Offered at BLC, ELC, HPC, JFC, OWC, SEC, SMC)

#### General Education

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102 Writing II</td>
<td>3</td>
</tr>
<tr>
<td>COM 181 Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COM 252 Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>HIS 108 History of the United States Through 1865</td>
<td>3</td>
</tr>
<tr>
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</tr>
<tr>
<td>MAT 146 Contemporary College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150 College Algebra</td>
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<tr>
<td>MA 109 College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MA 111 Contemporary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>34-35</strong></td>
</tr>
</tbody>
</table>

#### Technical Core or Support Core (Common)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>EDU 201</td>
<td>An Introduction to American Education</td>
<td>3</td>
</tr>
<tr>
<td>EDP 202</td>
<td>Human Development and Learning</td>
<td>3</td>
</tr>
<tr>
<td>EDP 203</td>
<td>Teaching Exceptional Learners in Regular Classrooms</td>
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</tr>
<tr>
<td><strong>Total Common</strong></td>
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</table>

#### Technical or Support Electives

<table>
<thead>
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<th>Course Title</th>
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</tr>
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<tbody>
<tr>
<td>EDU 110 Orientation to Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU 120 Child and Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>EDU 130 Introduction to Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU 140 Introduction to Behavior Management</td>
<td>3</td>
</tr>
<tr>
<td>EDU 150 Practical Experiences for the Paraeducator</td>
<td>3</td>
</tr>
<tr>
<td>Computer/Digital Literacy</td>
<td>0-3</td>
</tr>
</tbody>
</table>

**Total Credit Hours 61-62**

1. At least one course must be selected from the identified Cultural Studies course list.
2. Must include at least one Science course with a laboratory experience.
3. Successfully passing the computer/digital competency exam will satisfy this requirement. If the computer/digital competency exam is successfully completed, the student must take three (3) credit hours of coursework approved by the program coordinator.

### Certificate

**Paraeducator - 1315013019**

(Offered at BLC, ELC, HPC, JFC, MYC, OWC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 110</td>
<td>Orientation to Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU 120</td>
<td>Child and Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>EDU 130</td>
<td>Introduction to Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU 140</td>
<td>Introduction to Behavior Management</td>
<td>3</td>
</tr>
<tr>
<td>EDU 150</td>
<td>Practical Experiences for the Paraeducator</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Paraeducator Certificate</strong></td>
<td><strong>15-18</strong></td>
<td></td>
</tr>
</tbody>
</table>
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 through 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 215 Clinical Experience I; 1 credit hour/EMS 225 Clinical Experience II; 2 credit hours/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.

Academic Curricula

Emergency Medical Services - Paramedic - 5109047029
(Offers at ASC, GTW, JFC, MDC, OWC, SMC, WKC)

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>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
<td>4</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>
<tr>
<td>EMS 221</td>
<td>Cardiac and Trauma Lab</td>
<td>1</td>
</tr>
<tr>
<td>EMS 225</td>
<td>Clinical Experience II</td>
<td>1</td>
</tr>
<tr>
<td>EMS 230</td>
<td>Traumatic Emergencies</td>
<td>4</td>
</tr>
<tr>
<td>EMS 231</td>
<td>Medical Lab</td>
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<td>EMS 235</td>
<td>Clinical Experience III</td>
<td>2</td>
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<tr>
<td>EMS 240</td>
<td>Medical Emergencies I</td>
<td>3</td>
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<tr>
<td>EMS 250</td>
<td>Medical Emergencies II</td>
<td>3</td>
</tr>
<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>
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</tbody>
</table>

Total Credits: 63-67

*BIO 137 & BIO 139 may be substituted for BIO 135

Certificate

Emergency Medical Services - Paramedic - 5109043040
(Offers at ASC, BLC, HZC, GTW, JFC, MDC, OWC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology Greek/Latin</td>
<td>(3)</td>
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<tr>
<td>FHM 100</td>
<td>Dosage Calculations OR</td>
<td>2</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
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<tr>
<td>EMS 200</td>
<td>Introduction to Paramedicine</td>
<td>4</td>
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<td>EMS 210</td>
<td>Emergency Pharmacology</td>
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<td>EMS 211</td>
<td>Fundamentals Lab</td>
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<tr>
<td>EMS 215</td>
<td>Clinical Experience I</td>
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<tr>
<td>EMS 220</td>
<td>Cardiovascular Emergencies</td>
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<td>EMS 221</td>
<td>Cardiac and Trauma Lab</td>
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<tr>
<td>EMS 225</td>
<td>Clinical Experience II</td>
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<tr>
<td>EMS 230</td>
<td>Traumatic Emergencies</td>
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<tr>
<td>EMS 231</td>
<td>Medical Lab</td>
<td>1</td>
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<tr>
<td>EMS 235</td>
<td>Clinical Experience III</td>
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<tr>
<td>EMS 240</td>
<td>Medical Emergencies I</td>
<td>3</td>
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<td>EMS 250</td>
<td>Medical Emergencies II</td>
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<td>EMS 260</td>
<td>Special Populations</td>
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<td>EMS 270</td>
<td>EMS Operations</td>
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<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>
</tbody>
</table>

Total Credits: 47-49

*BIO 137 & BIO 139 may be substituted for BIO 135

Total Credits: 47-49
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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>Quantitative Reasoning</td>
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<tr>
<td>Natural Sciences</td>
<td>3</td>
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<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
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<tr>
<td>Written Communication</td>
<td>3</td>
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<td><strong>Subtotal</strong></td>
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**Technical Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENM 101 Energy Industry Fundamentals</td>
<td>9</td>
</tr>
<tr>
<td>ENM 111 Sustainability Management OR</td>
<td>3</td>
</tr>
<tr>
<td>One Study Abroad/Overseas Experience course (HRS 200,(3) IES 235 Or other Study Abroad course from a non-KCTCS accredited ……… higher education institution approved by the Energy Management program coordinator).</td>
<td></td>
</tr>
<tr>
<td>ENM 121 Solar Design and Applications</td>
<td>3</td>
</tr>
<tr>
<td>ENM 200 Commercial Energy Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENM 210 Smart Grid Applications</td>
<td>3</td>
</tr>
<tr>
<td>AIT 220 The Integrated Power Grid</td>
<td>3</td>
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<tr>
<td>ENM 230 Building Automation</td>
<td>3</td>
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<tr>
<td>EGY 240 Energy Analysis and Efficiency</td>
<td>4</td>
</tr>
<tr>
<td>ENM 250 Regulatory and Environmental Issues</td>
<td>3</td>
</tr>
<tr>
<td>ENM 260 Air Conditioning and Refrigeration Regulations</td>
<td>3</td>
</tr>
<tr>
<td>BRX 120 Basic Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283 Principles of Management OR</td>
<td>3</td>
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<tr>
<td>BAS 284 Applied Management Skills</td>
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**Total Credits** 52

**Certificates**

**Fundamentals of Energy Production – 1505033089**

(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><strong>Total Credits</strong></td>
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**Commercial Energy Analysis – 1505033099**

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>ENM 111 Sustainability Management OR</td>
<td>3</td>
</tr>
<tr>
<td>One Study Abroad/Overseas Experience course (HRS 200,(3) IES 235 Or other Study Abroad course from a non-KCTCS accredited ……… higher education institution approved by the Energy Management program coordinator).</td>
<td></td>
</tr>
<tr>
<td>ENM 200 Commercial Energy Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENM 230 Building Automation</td>
<td>3</td>
</tr>
<tr>
<td>ENM 250 Regulatory and Environmental Issues</td>
<td>3</td>
</tr>
<tr>
<td>ENM 260 Air Conditioning and Refrigeration Regulations</td>
<td>3</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</table>

**Sustainable Energy - 1505033109**

(Offered at MDC)

<table>
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<tr>
<th>Course</th>
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<tr>
<td>ENM 111 Sustainability Management OR</td>
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</tr>
<tr>
<td>One Study Abroad/Overseas Experience course (HRS 200,(3) IES 235 Or other Study Abroad course from a non-KCTCS accredited ……… higher education institution approved by the Energy Management Program coordinator).</td>
<td></td>
</tr>
<tr>
<td>ENM 121 Solar Design and Applications</td>
<td>3</td>
</tr>
<tr>
<td>AIT 220 The Integrated Power Grid</td>
<td>3</td>
</tr>
<tr>
<td>ENM 210 Smart Grid Applications</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</table>
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.

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
ESP 101 Introduction to Energy Systems ....................................3
ESP 220 Power Plant Thermodynamics or ..................................3
ELT 102 Blueprint Reading ........................................................2
ELT 210 Thermodynamic Applications ....................................(3)
ENV 110 Introduction to Environmental Technology ..............4
ESP 110 Petroleum Based Fuels .............................................3
ESP 280 Capstone in Energy Systems or ..................................3
ISM 210 Fundamentals of Process Control ..................................(3)
Subtotal 24-27

Power Plant Operations Track - 150503701
(Offered at MYC)
ESP 212 Power Plant Operations II ...........................................3
ESP 213 Power Plant Operations III ..........................................3
ESP 214 Power Plant Operations IV ..........................................3
ESP 120 Power Plant Chemistry ...............................................3
ESP 130 Electrical Concepts ......................................................3
ESP 132 Electrical Machinery and Controls ..............................3
COE** 199 Cooperative Education .............................................3
Subtotal 21

Total Credits 63-66

Core
ELT 102 Blueprint Reading ...................................................2
ESP 220 Power Plant Thermodynamics or ..................................3
ELT 210 Thermodynamic Applications ....................................(3)
ESP 211 Power Plant Operations I .............................................3
ESP 120 Power Plant Chemistry ...............................................3
ISX 101 Introduction to Industrial Safety ..................................3
ESP 212 Power Plant Operations II ..........................................3
ESP 213 Power Plant Operations III ..........................................3
ESP 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.

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/relay 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 Technologies - 1505037029
(Offered at GTW)

General Education
ENG 101 Writing I ...............................................................3
MAT 110 Applied Mathematics OR ...........................................3
Any Higher Level Quantitative Reasoning Courses ..............(3)
PHY 171 Applied Physics OR ..................................................4
Natural Sciences ..................................................................3
Heritage/Humanities ............................................................3
Oral Communications ............................................................3
Social/Behavioral Sciences ...............................................3
Subtotal 18-19

Certificate

Power Plant Operations - 1505033019
(Offered at MYC)

General Education
MAT 116 Technical Mathematics .............................................3
PHY 151 Introductory Physics I or higher ..................................3
Subtotal 6

Core
BAS 160 Introduction to Business .............................................3
EET 150 Transformers ..........................................................2
EET 151 Transformers Lab .....................................................1
ELT 110 Circuits I ...............................................................5
ETT 110 Voice and Data Installer Level I .................................4
ISX 101 Introduction to Industrial Safety ..................................3
EGY 170 Energy Utility Technologies .....................................4
EGY 120 Outside Plant Communications ................................4

**COE 199 requirement can be met by relevant work experience approved by the program coordinator.
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

COE 199 Cooperative Education (up to 8 credit hours) ..................... 16

DFT 122 Introduction to Computer Aided Drafting .......................... 16

Total Credits 60-64

Energy Efficiency Electrical Controls Technician – 1505033049
(Offered at GTW)

EET 154 Electrical Construction I .................................................. 2
EET 155 Electrical Construction I Lab ........................................... 2
EET 250 National Electric Code ................................................... 4
EET 252 Electrical Construction II .................................................. 2
EET 253 Electrical Construction II Lab .......................................... 2

Total 16-19

Outside Plant Technician – 1505033039
(Found at GTW)

ELT 110 Circuits I ................................................................. 5
ELT 210 Devices I ............................................................... 4
ELT 114 Circuits II ............................................................... 5
ELT 210 Devices II ............................................................. 4
ELT 120 Digital I ................................................................. 3

Total 15-18

Wind System Technologies – 1505033059
(Offered at BSC, BLC, GTW)

ELT 110 Circuits I ................................................................. 5
IMT 150 Maintaining Industrial Equipment .................................. 3
IMT 151 Maintaining Industrial Equipment Lab ......................... 2

Total 14

Solar/Photovoltaic Technologies – 1505033069
(Offered at BSC, BLC, GTW)

EET 154 Electrical Construction I .................................................. 2
EET 155 Electrical Construction I Lab ........................................... 2
ELT 110 Circuits I ................................................................. 5

Total 62-64

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 - 1500007019
(Offered at BLC, ELC, HPC, JFC, MYC, OWC, SKY, SMC)

General Education

MAT 150 College Algebra OR .................................................. 3
MAT 126 Technical Algebra and Trigonometry ......................... (3)
PHY 171 Applied Physics OR .................................................. 4
Other Natural Sciences with Consent of Program Coordinator ........ 3

Total: 18-19

Core:

ELT 110 Circuits I ................................................................. 5
ELT 114 Circuits II ............................................................... 5
ELT 210 Devices I ............................................................. 4
ELT 120 Digital I ................................................................. 3
CAD 100 Equivalent Course with Consent of Program Coordinator 3

Total 24-25

Electronics Track – 150000707
(Offered at BLC, ELC, HPC, JFC, MYC, OWC, SMC)

ELT 214 Devices II ............................................................. 4

Total: 20

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
Computer Maintenance Track – 150000703

(Offered at BLC, ELC, JFC, SMC)

ELT 234 Computer Hardware Maintenance OR ........................................... 3
IT 105 Computer Maintenance Essentials OR ........................................... (3)
ELT 232 Computer Software Maintenance OR ........................................... 3
IT 205 Advanced Computer Maintenance OR ........................................... (3)
ELT 205 Advanced Computer Maintenance ............................................. (3)
ELT 220 Digital II ...................................................................................... 3
NIS 160 Networking Core Technologies OR ........................................... 3
IT 120 Cisco Internetworking I OR .......................................................... (4)
CIT 160 Data Communications and Networking ........................................ 4
Technical Electives * .............................................................................. 9
Subtotal: 21-22

Total 63-66

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Apprenticeship Track – 150000701

(Offered at JFC)

APS 201 Apprenticeship Studies ................................................................. 24

Total 66-68

*Technical Electives: Any EET, ET, ELT, IMT, CIS, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Mechanical Track – 150000706

(Offered at JFC, OWC)

ELT 122 Mechanical Power Transmission Systems AND .......................... 3
ELT 124 Mechanical Power Transmission Systems Lab OR ....................... 1
IMT 150 Maintaining Industrial Equipment I AND ...................................... (3)
IMT 151 Maintaining Industrial Equipment I Lab ......................................... (2)
ELT 265 Applied Fluid Power ................................................................... 3
BRX 120 Basic Blueprint Reading ............................................................. 3
CAD 200 Intermediate Computer Aided Drafting ...................................... 4
Technical Electives * .............................................................................. 8
Subtotal: 22-23

Total 64-67

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Industrial Track – 150000704

(Offered at BLC, HPC, JFC, MYC, OWC)

ELT 214 Devices ....................................................................................... 4
ELT 220 Digital II ...................................................................................... 3
ELT 244 Electrical Machinery and Controls OR ....................................... 4
EET 270 Electrical Motor Controls I AND .................................................. (2)
EET 271 Electrical Motor Controls I Lab ..................................................... (2)
ELT 250 Programmable Logic Controllers OR ....................................... 4
EET 276 Programmable Logic Controllers AND ...................................... (2)
EET 277 Programmable Logic Controllers Lab ......................................... (2)
Technical Electives * .............................................................................. 9
Subtotal: 24

Total 66-68

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Computer Aided Design Track – 150000702

(Offered at HPC, JFC)

CAD 150 Programming in CAD OR ........................................................... 4
ELT 290 Selected Topics in Engineering Technology OR .......................... (3-4)
ADFT 130 Introduction to Architecture .................................................... (4)
CAD 200 Intermediate Computer Aided Drafting ...................................... 4
CAD 201 Advanced 3D Modeling ............................................................. 4
Technical Electives * .............................................................................. 12
Subtotal: 23-24

Total 65-68

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Robotics and Automation Track – 150000705

(Offered at BLC, HPC, JFC, MYC, SKY)

ELT 118 Manufacturing III: Computer Numerical Control OR .............. 3
CMM 132 CAD/CAM/CNC ........................................................................ 3
ELT 265 Applied Fluid Power .................................................................... 3
ELT 260 Robotics and Industrial Automation ........................................... 5
ELT 244 Electrical Machinery and Controls OR ..................................... 4
EET 270 Electrical Motor Controls I AND .................................................. (2)
EET 271 Electrical Motor Controls I Lab ..................................................... (2)
ELT 250 Programmable Logic Controllers OR ....................................... 4
EET 276 Programmable Logic Controllers AND ..................................... (2)
EET 277 Programmable Logic Controllers Lab ......................................... (2)
Technical Electives * .............................................................................. 5
Subtotal: 24

Total 66-68

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Communications Track – 150000708

(Offered at BLC, ELC)

ELT 214 Devices ....................................................................................... 4
ELT 220 Digital II ...................................................................................... 3
ELT 240 Communications Electronics ...................................................... 6
Technical Electives * .............................................................................. 9
Subtotal: 22

Total 64-66

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Instrumentation Track – 150000709

(Offered at ELC)

ELT 220 Digital II ...................................................................................... 3
ISM 102 Fundamentals of Instrumentation .............................................. 4
ISM 210 Fundamentals of Process Control .............................................. 4
Technical Electives * .............................................................................. 7
Subtotal: 18

Total 60-62

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Medical Equipment and Instrumentation Track – 150000710

ELT 214 Devices ....................................................................................... 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 .......................................... 1
BMT 209 Clinical ...................................................................................... 2
Subtotal: 23

Total 65-67

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
**Diplomas**

**Electronics – 1500004019**

*(Offered at BLC, BSC, ELC, HPC, JFC, MDC, MYC, OWC, SEC, SMC)*

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**Subtotal:**

25-27

**Total:**

51-53

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, OR any other course as approved by the program coordinator.

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**Apprenticeship- 150004059**

*(Offered at JFC)*

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**Subtotal:**

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**Subtotal:**

25-27

**Total:**

55-57

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, OR any other course as approved by the program coordinator.

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**Industrial Electronics – 1500004079**

*(Offered at BLC, HPC, JFC, MYC, OWC, SEC)*

**General Education:**

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**Subtotal:**

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**Core:**

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**Subtotal:**

25-27

**Total:**

55-57

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, OR any other course as approved by the program coordinator.

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**Engineering Design Technician – 1500004089**

*(Offered at JFC)*

**General Education:**

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**Subtotal:**

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**Core:**

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**Subtotal:**

25-27

**Total:**

55-57

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, OR any other course as approved by the program coordinator.*
Communications – 150004029
(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 ………………….. (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
Equivalent Course with Consent of Program Coordinator ……(3-4)
ELT 289 Engineering and Electronics Technology Capstone Course 1
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

ELT 214 Devices II………………………………………………… 4
ELT 220 Digital II………………………………………………… 3
ELT 240 Communications Electronics ……………………………… 6
Technical Electives *………………………………………………… 11
Subtotal: 24
Total 55-57

*Technical Electives: Any EET, ET, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Mechanical – 150004069
(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 ………………….. (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
Equivalent Course with Consent of Program Coordinator (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course 1
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

ELT 122 Mechanical Power Transmission Systems AND …………. 3
ELT 124 Mechanical Power Transmission Systems Lab OR ……. 1
IMT 150 Maintaining Industrial Equipment I AND ………………… (3)
IMT 151 Maintaining Industrial Equipment I Lab …………………. (2)
ELT 265 Applied Fluid Power…………………………………….. 3
BRX 120 Basic Blueprint Reading ………………………………… 3
CAD 200 Intermediate Computer Aided Drafting …………………. 4
Technical Electives *………………………………………………… 8
Subtotal: 22-23
Total 53-56

*Technical Electives: Any EET, ET, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Robotics and Automation – 150004039
(Offered at BLC, BSC, HPC, JPC, MYC, OWC, SKY)

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 ………………….. (3)
Subtotal: 6

Core:
ELT 110 Circuits I ……………………………………………………. 5
ELT 114 Circuits II ……………………………………………………. 5
ELT 210 Devices I ……………………………………………………. 4
ELT 234 Computer Hardware Maintenance OR …………………… (3)
IT 105 Computer Maintenance Essentials OR …………………… (3)
ELT 232 Computer Software Maintenance OR …………………… (3)
IT 205 Advanced Computer Maintenance OR …………………… (3)
ELT 220 Digital I ……………………………………………………. 3
NIS 160 Networking Core Technologies OR …………………….. 3
IT 120 Cisco Internetworking I OR……………………………(4)
CIT 160 Data Communications and Networking …………………(4)
Technical Electives *………………………………………………… 9
Subtotal: 21-22
Total 52-55

*Technical Electives: Any EET, ET, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
ELT 120 | Digital II | 5
----|----|----
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
ELT 289 | Engineering and Electronics Technology Capstone Course | 1
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

ELT 118 | Manufacturing III: Computer Numerical Control OR | 3
CMM 132 | CAD/CAM/CNC | 3
ELT 265 | Applied Fluid Power | 3
ELT 260 | Robotics and Industrial Automation | 5
ELT 244 | Electrical Machinery and Controls OR | 4
EET 270 | Electrical Motor Controls I AND | 2
EET 271 | Electrical Motor Controls I Lab | 2
ELT 250 | Programmable Logic Controllers OR | 4
EET 276 | Programmable Logic Controllers AND | 2
EET 277 | Programmable Logic Controllers Lab | 2
Technical Electives * | 5
Subtotal: | 24
Total: 55-57

*Technical Electives: Any EET, ET, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

**Medical Equipment Service Technician - 150004119**

**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 | 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
- Equivalent Course with Consent of Program Coordinator (3-4)
- Computer/Digital Literacy | 3
- ELT 289 | Engineering and Electronics Technology Capstone Course | 1
- 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:** 55-57

**Digital Telephony - 150004109**

**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 | 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
- Equivalent Course with Consent of Program Coordinator (3-4)
- Computer/Digital Literacy | 3
- ELT 289 | Engineering and Electronics Technology Capstone Course | 1
- 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:** 55-57

**Certificates**

**Electronics Tester – 1500003089**

*(Offered at BLC, BSC, ELC, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC)*

ELT 110 | Circuits I | 5
ELT 114 | Circuits II | 5
ELT 120 | Digital I | 3
Total: | 13
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*

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<td>ENG 102 Writing II*</td>
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<td>MA 109 College Algebra*</td>
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<td>COM 181 Basic Public Speaking*</td>
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<td>COM 252 Intro to Interpersonal Communications*</td>
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<td>Heritage/Humanities Course</td>
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<td>CIT 105 Intro to Computing</td>
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<td>BIO 112 <em>Introduction to Biology</em></td>
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<td>EST 150 Introductory Ecology</td>
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<td>CIS 130 Microcomputer Applications</td>
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<td>CHE 170 General College Chemistry I</td>
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<td>EST 160 Hydraulic Geology</td>
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<td>EST 170 Environmental Sampling Laboratory</td>
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<td>EST 220 Pollution of Aquatic Ecosystems</td>
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<td>EST 230 Aquatic Chemistry Lab</td>
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<td>EST 240 Sources and Effects of Air Pollution</td>
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<td>EST 250 Solid and Hazardous Waste Management</td>
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<td>EST 260 Environmental Analysis Lab</td>
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<td>GIS 110 Spatial Data Analysis</td>
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<td>GIS 120 Introduction to Geographic Information Systems</td>
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<td>CIS 234 Advanced Spreadsheet Applications</td>
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<td>ENG 203 Business Writing</td>
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<td>CHE 180 General Chemistry II</td>
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<td>GEO 210 Pollutons, Hazards, and Environmental Mgmt</td>
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<td>GLY 220 Principles of Physical Geology</td>
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<td>ECO 201 Principles of Economics I</td>
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<td>CE 211 Surveying</td>
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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 conduct tests and field investigations to determine 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)

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<td>ENV 260</td>
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<td>ENV 261</td>
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<td>TEC 200</td>
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Electives:

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</table>

Total Credits 37

Wastewater Treatment Plant Operator - 1505073049
(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CPU 100</td>
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<tr>
<td>ENV 270</td>
<td>6</td>
</tr>
<tr>
<td>ENV 291</td>
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Electives:

<table>
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Total Credits 36

Water Treatment Plant Attendant - 1505073059
(Offered at BLC)

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Electives:

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Total Credits 26

Water Treatment Plant Operator - 1505073069
(Offered at BLC)

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<td>ENV 100</td>
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<td>ENV 110</td>
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<td>ENV 121</td>
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<td>ENV 140</td>
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<td>ENV 141</td>
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<tr>
<td>ENV 270</td>
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<tr>
<td>ENV 281</td>
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</tr>
<tr>
<td>TEC 200</td>
<td>3</td>
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Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV 293</td>
<td>1</td>
</tr>
<tr>
<td>ENV 295</td>
<td>2</td>
</tr>
<tr>
<td>ENV 297</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 36

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 racecourses 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 - 0105077019

(Offered at BLC)

**General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Written Communication</td>
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</table>

**Total General Education Requirements** 15

**Technical Core:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer/Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>EQS 101 Introduction to the Thoroughbred</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103 Racehorse Care</td>
<td>1</td>
</tr>
<tr>
<td>EQS 104 Racehorse Care Lab</td>
<td>3</td>
</tr>
<tr>
<td>EQS 110 Basic Equine Physiology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Technical Core** 29-32

#### Jockey Track - 010507701

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQS 111 Introduction to Riding Racehorses</td>
<td>1</td>
</tr>
<tr>
<td>EQS 112 Racehorse Riding Skills I</td>
<td>4</td>
</tr>
<tr>
<td>EQS 113 Racehorse Riding Skills II</td>
<td>4</td>
</tr>
<tr>
<td>EQS 212 Racehorse Riding Principles</td>
<td>3</td>
</tr>
<tr>
<td>EQS 213 Racehorse Riding Techniques</td>
<td>2</td>
</tr>
<tr>
<td>EQS 215 Life Skills for Jockeys</td>
<td>3</td>
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</tbody>
</table>

**Total Jockey Track** 17

#### Horseman Track - 010507702

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQS 118 Equine Bloodstock</td>
<td>3</td>
</tr>
<tr>
<td>EQS 121 Introduction to Breaking and Training Racehorses</td>
<td>1</td>
</tr>
<tr>
<td>EQS 122 Yearling Breaking and Training</td>
<td>3</td>
</tr>
<tr>
<td>EQS 123 Breaking and Prepping Two-Year Olds</td>
<td>3</td>
</tr>
<tr>
<td>EQS 223 Training Principles and Practices</td>
<td>4</td>
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<tr>
<td>EQS 225 Life Skills for Horsemen</td>
<td>3</td>
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</tbody>
</table>

**Total Horseman Track** 17

### 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>SPA 101 Elementary Spanish</td>
<td>4</td>
</tr>
<tr>
<td>EQM 120 Introduction to Commercial Breeding Practices</td>
<td>3</td>
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<tr>
<td>EQS 118 Equine Bloodstock</td>
<td>3</td>
</tr>
<tr>
<td>EQS 299 Equine Cooperative Education (internship)</td>
<td>1-9</td>
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### Diplomas

#### Equine Studies - 0105074019

(Offered at BLC)

**General Education Core**

<table>
<thead>
<tr>
<th>Area I</th>
<th>Hours</th>
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<tr>
<td>(Written Communication / Oral Communications, or Humanities / Heritage)</td>
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<table>
<thead>
<tr>
<th>Area II</th>
<th>Hours</th>
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<tbody>
<tr>
<td>(Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning)</td>
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**General Education Total** 6

**Technical Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Computer/Digital Literacy</td>
<td>0-3</td>
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<tr>
<td>EQS 101 Introduction to the Thoroughbred</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103 Racehorse Care</td>
<td>1</td>
</tr>
<tr>
<td>EQS 104 Racehorse Care Lab</td>
<td>3</td>
</tr>
<tr>
<td>EQS 110 Basic Equine Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EQS 125 Equine Health and Nutrition</td>
<td>3</td>
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<tr>
<td>EQS 130 Introduction to the Racing Industry</td>
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<tr>
<td>EQS 200 Lameness in Racehorses</td>
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</tr>
<tr>
<td>EQS 240 Equine Legal and Business Principles</td>
<td>3</td>
</tr>
<tr>
<td>EQS 299 Equine Cooperative Education (1 credit hour min  required in diploma. Additional credits may count toward elective credits.)</td>
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**Total Technical Core** 29-32
### Jockey Track - 010507401
(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>EQS 111</td>
<td>Introduction to Riding Racehorses</td>
<td>1</td>
</tr>
<tr>
<td>EQS 112</td>
<td>Racehorse Riding Skills I</td>
<td>4</td>
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<tr>
<td>EQS 113</td>
<td>Racehorse Riding Skills II</td>
<td>4</td>
</tr>
<tr>
<td>EQS 212</td>
<td>Racehorse Riding Principles</td>
<td>3</td>
</tr>
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<td>EQS 213</td>
<td>Racehorse Riding Techniques</td>
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<tr>
<td>EQS 215</td>
<td>Life Skills for Jockeys</td>
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**Subtotal Jockey Track** 17

**Total Jockey Track Diploma** 52-55

### Horseman Track - 010507402
(Offered at BLC)

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EQS 118</td>
<td>Equine Bloodstock</td>
<td>3</td>
</tr>
<tr>
<td>EQS 121</td>
<td>Introduction to Breaking and Training Racehorses</td>
<td>1</td>
</tr>
<tr>
<td>EQS 122</td>
<td>Yearling Breaking and Training</td>
<td>3</td>
</tr>
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<td>EQS 123</td>
<td>Breaking and Training Yearlings/TwoYear Olds</td>
<td>3</td>
</tr>
<tr>
<td>EQS 223</td>
<td>Training Principles and Practices</td>
<td>4</td>
</tr>
<tr>
<td>EQS 225</td>
<td>Life Skills for Horsemen</td>
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**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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>SPA 101</td>
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<td>Introduction to Commercial Breeding Practices</td>
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<td>EQS 118</td>
<td>Equine Bloodstock</td>
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</tr>
<tr>
<td>EQS 299</td>
<td>Equine Cooperative Education (internship)</td>
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### Certificate

#### Exercise Rider - 0105073019
(Offered at BLC)

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<tbody>
<tr>
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<td>Introduction to the Thoroughbred</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103</td>
<td>Racehorse Care</td>
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<td>EQS 104</td>
<td>Racehorse Care Lab</td>
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<tr>
<td>EQS 110</td>
<td>Basic Equine Physiology</td>
<td>3</td>
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<tr>
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<td>Introduction to Riding Racehorses</td>
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<td>EQS 113</td>
<td>Racehorse Riding Skills II</td>
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<td>EQS 130</td>
<td>Introduction to the Racing Industry</td>
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**Total Credits** 22

### Racehorse Care and Breaking - 0105073049
(Offered at BLC)

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>EQS 101</td>
<td>Introduction to the Thoroughbred</td>
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<tr>
<td>EQS 103</td>
<td>Racehorse Care</td>
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<tr>
<td>EQS 104</td>
<td>Racehorse Care Lab</td>
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<tr>
<td>EQS 110</td>
<td>Basic Equine Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EQS 121</td>
<td>Introduction to Breaking and Training Racehorses</td>
<td>1</td>
</tr>
<tr>
<td>EQS 123</td>
<td>Breaking and Prepping Two Year Olds</td>
<td>1</td>
</tr>
<tr>
<td>EQS 125</td>
<td>Equine Health and Nutrition</td>
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<tr>
<td>EQS 130</td>
<td>Introduction to the Racing Industry</td>
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**Total Credits** 20

### Equine Industry Workforce - 0105073039
(Offered at BLC)

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<td>Introduction to the Thoroughbred</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103</td>
<td>Racehorse Care</td>
<td>1</td>
</tr>
<tr>
<td>EQS 104</td>
<td>Racehorse Care Lab</td>
<td>3</td>
</tr>
<tr>
<td>EQS 299</td>
<td>Equine Co-op</td>
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### Veterinary Assistant - 0105073059
(Offered at BLC)

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>BIO 112</td>
<td>Introduction to Biology</td>
<td>3</td>
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<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry</td>
<td>3</td>
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<tr>
<td>CHE 145</td>
<td>Introductory General Chemistry Lab</td>
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<td>COM 181</td>
<td>Basic Public Speaking</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
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<td>AGR 240</td>
<td>Introduction to Animal Science</td>
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<td>EQS 103</td>
<td>Racehorse Care</td>
<td>1</td>
</tr>
<tr>
<td>EQS 104</td>
<td>Racehorse Care Lab</td>
<td>3</td>
</tr>
<tr>
<td>EQS 110</td>
<td>Basic Equine Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EQS 299</td>
<td>Equine Co-op</td>
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**Total Credits** 27

### Financial and Customer Services Certificate – 5208033019
(Offered at OWC)

<table>
<thead>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>SPA 101</td>
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</tr>
<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>QMS 235</td>
<td>Business Communication Technology OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 294</td>
<td>Money and Financial Institutions</td>
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</table>

**Total Credits** 13

### Fire/Rescue Science Technology

**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 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.

Associate in Applied Science

Fire/Rescue Science Technology - 4302037019

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

General Education:

<table>
<thead>
<tr>
<th>Component</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
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<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences, Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Written Communication</td>
<td>3</td>
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<tr>
<td><strong>Subtotal</strong></td>
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Technical Courses:

<table>
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<th>Component</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Computer/Digital Literacy</td>
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</tr>
<tr>
<td>Introduction to Fire Service</td>
<td>3</td>
</tr>
<tr>
<td>Firefighters Basic Skills I</td>
<td>3</td>
</tr>
<tr>
<td>Firefighters Basic Skills II</td>
<td>3</td>
</tr>
<tr>
<td>Firefighters Intermediate Skills I</td>
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<tr>
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</tr>
<tr>
<td>Firefighters Advanced Skills I</td>
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<tr>
<td>Firefighters Advanced Skills III</td>
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<td>EMT First Responder</td>
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<tr>
<td>Fire Officer I</td>
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<tr>
<td>Fire Officer II</td>
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<tr>
<td>Fire Officer III</td>
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<td><strong>Subtotal</strong></td>
<td><strong>46-49</strong></td>
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</tbody>
</table>

Total Credits 61-64

NOTE: All FRS courses are available in modules; see course description section.

Diploma

Fire Chief - 4302034039

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

General Education:

<table>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>or Humanities/Heritage</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences, Natural Sciences,</td>
<td>3</td>
</tr>
<tr>
<td>or Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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</tr>
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Technical Courses:

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</thead>
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<tr>
<td>Computer/Digital Literacy OR</td>
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</tr>
<tr>
<td>demonstrated competency</td>
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</tr>
<tr>
<td>Introduction to Fire Service</td>
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</tr>
<tr>
<td>Firefighters Basic Skills I</td>
<td>3</td>
</tr>
<tr>
<td>Firefighters Basic Skills II</td>
<td>3</td>
</tr>
<tr>
<td>Firefighters Intermediate Skills I</td>
<td>3</td>
</tr>
<tr>
<td>Firefighters Intermediate Skills II</td>
<td>3</td>
</tr>
</tbody>
</table>

FRS 101 Firefighters Advanced Skills I .......... 3
FRS 201 Firefighters Advanced Skills II .......... 3
FRS 301 Firefighters Advanced Skills III ....... 3
FRS 401 Firefighters Intermediate Skills I ...... 3
FRS 501 Firefighters Intermediate Skills II ..... 3
FRS 601 Firefighters Intermediate Skills III ... 3

**Subtotal** 52-55

NOTE: All FRS courses are available in modules; see course description section.
Funeral Service

The Funeral Service program provides the educational foundation needed to seek a Kentucky or other state licensure, both as a funeral director and an embalmer.

The Funeral Service program at Southeast Kentucky Community and Technical College is a candidate for initial accreditation to The American Board of Funeral Service Education, 3414 Ashland Avenue, Suite G, St. Joseph, MO 64506 (816) 233 3747 (www.abfse.org)

CAUTION: Students applying for admission to the funeral service program should contact their respective state boards of funeral service regarding that state board’s approval of this particular program of instruction.

Associate in Applied Science

Funeral Service -1203017019
(Offered at MDC, SEC)

General Education:

ENG 101 Writing I ................................................................................. 3
MAT 110 Applied Mathematics OR .................................................. 3
MAT 146 Contemporary College Mathematics OR......................... (3)
BIO 135 Basic Anatomy and Physiology with Laboratory ................. 4
BIO 225 Medical Microbiology ............................................................ 4
PSY 110 General Psychology OR ....................................................... 3
SOC 101 Introduction to Psychology .................................................. (3)
Heritage/Humanities ........................................................................ 3
Oral Communications ...................................................................... 3
Subtotal 23

Technical Courses:

1. Digital Literacy .............................................................................. 0-3
2. Introduction to Funeral Service .................................................. 2
3. Funeral Service Directing ............................................................ 3
4. Financial Accounting OR ............................................................ 3
5. Fundamentals of Accounting I .................................................... (3)
6. Business and Mortuary Law .......................................................... 2
7. Funeral Service, Regulations, and Statutes ................................. 3
8. Pathology for Funeral Service ...................................................... 3
9. Sociology of Funeral Service ........................................................ 2
10. Thanatochemistry ......................................................................... 4
11. Restorative Arts ........................................................................... 4
12. Funeral Service Management and Merchandising .................... 2
13. Embalming ................................................................................... 4
14. Embalming Practicum ................................................................. 1
15. Funeral Counseling ...................................................................... 4
16. Funeral Service Projects .............................................................. 2
17. Small Business Management ...................................................... 3
18. Additional Course in Management, Marketing, Accounting, Or Computer Application ....................................................... (0-3’)
Subtotal 45
Total 68

1. Students who pass the Digital Literacy examination will be required to take an additional three hours in the areas noted above as approved by the program coordinator.

Funeral Service Program Aims and Objectives:

1. Serve as a member of a human services profession.
2. Participate as funeral service personnel in the community which he or she serves.
3. Participate in the community between bereaved families and those engaged in the funeral service profession.
4. Comply with federal, state and local regulatory guidelines of funeral service.
5. Uphold responsibility for public health, safety, and welfare in caring for human remains.
6. Enlarge the background and knowledge of students about the funeral service profession.
7. Educate students in every phase of funeral service and to help enable them to develop proficiency and skills necessary for the profession, as defined in the Preamble of the Standards for the American Board of Funeral Service Education.
8. Educate students concerning the responsibilities of the funeral service profession to the community at large.
9. Execute high standards of ethical conduct.
10. Educate students through a funeral service curriculum that is appropriate to the post-secondary level of instruction.
11. Encourage student and faculty research in the field of funeral service.

Funeral Service Admission Criteria:

In order to be considered by the Admissions Committee for admission to the Funeral Service Program, each applicant must submit the following documentation by Nov 1 for the spring semester or April 1 for the fall semester in which the student is applying for admission:

1. Application for admission to the college;
2. Official high school transcript from a public high school, a certified nonpublic high school, a non-certified high school, a passing GED official score report or the student has completed a home school curriculum, subject both to the ability to benefit criteria for KCTCS financial aid purposes and to the KCTCS Assessment and Placement Policy;
3. Official transcripts of all postsecondary education;
4. ACT (or SAT) and/or, ASSET or COMPASS test results;
5. Documentation that ENG 101, MAT 110/146 or higher, PSY 110 or SOC 101, Heritage/Humanities, and Oral Communications courses will be completed by the last day of the semester preceding admission;
6. Documentation of attendance at a Funeral Service Program Pre-Admission Conference or an interview with the program coordinator or designee; and
7. Completion of a selective admissions form.

Applications for admission to the Program may be accepted by the Admissions Committee later than the stated dates provided that:

1. Positions are still unfilled and
2. All the required documentation has been submitted.

Preference will be given to applicants:

1. With an ACT composite score of 20 or above (or equivalent on the SAT, ASSET or COMPASS);
2. Who have completed 24 or more college credit hours with a GPA of 3.5 or better (4.0 scale).

Readmission

1. A student who withdraws from or earns lower than a “C” in a Funeral Service Program core course will be dropped from the Program.
2. Application for readmission to the Funeral Service Program must be made by the established college program deadline.
3. Readmission to the Funeral Service Program will be dependent upon available resources.
4. In order to be considered for readmission by the Funeral Service Program Admissions Committee, the applicant must:
   a. submit a written request to the Program Coordinator presenting documentation to justify readmission; and
   b. meet current admission guidelines.
A student may be readmitted to the Funeral Service Program one time if a student furnishes sufficient evidence of remedial study, additional preparation, or resolution of factors contributing to unsuccessful course preparation. The student must repeat any course in the Funeral Services program in which a grade lower than "C" was earned. A student who withdraws or earns a grade lower than a "C" in a core course after readmission will be automatically and permanently dismissed from the program.

If more than two years have elapsed since initial enrollment in the first Funeral Service course, an applicant must repeat all Funeral Service courses unless the student has demonstrated current competency by passing exams equivalent to comprehensive course final examinations (both written and practical skills) if applicable.

Transfer Students
1. Students wishing to transfer from an accredited Funeral Service program will be considered on an individual basis.
2. Admission will be dependent upon available resources.
3. Students must meet all program admission requirements set by the college.
4. No grade less than "C" in a course equivalent to a Funeral Service core course will be accepted for transfer.

Program Requirements
In order to protect the Funeral Service provider, external facilities used by our students require data related to the health status of students. Therefore, prior to the first day of classes the student must submit the following:
1. PPD skin test results for TB;
2. Two MMR immunizations or verification of having had a prior case of measles as certified by a physician if born after 1956;
3. Hepatitis B vaccine series; and
4. Two doses of Varivax or verification of a known case of chicken pox.
In addition, a student must submit to a criminal background check conducted by a provider approved by KCTCS. A failed background check, as determined by the Kentucky Board of Embalmers and Funeral Directors, or a refusal to submit to a background check will be just cause to remove a student from the program.

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 - 309997017
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, 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
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
Subtotal 45-53

Total Credits 60-68

NOTE:
1If computer/digital literacy is demonstrated by a competency exam, an additional three credit hour course is required.
2The student must have a plan of study on file in the academic affairs office.
3A combination of general education and technical courses should not exceed 68 credits.

Geographic Information Systems Technology

A Geographic Information System (GIS) is a powerful combination of mapping technology and databases, that, when combined, may create an array of spatially arranged data on a map surface for detailed analysis. Once the domain of a few specialized government agencies and the military, GIS is now utilized by virtually every branch of the government and has become commonplace throughout the private sector. GIS may be employed for a stunning variety of applications: environmental, marketing, demographic and urban planning are just a few of the fields in which GIS is currently utilized.

All students enrolled at Bluegrass Community and Technical College are eligible to pursue the GIS Technology Certificate. There is no application to enroll in the certificate, but it is suggested that if you elect to pursue the certificate that you inform the coordinator of the GIS Certificate as well as your technical advisor and the chair of your technical degree program. The curriculum is tailored to those enrolled in the following technical degree programs: Architectural Technology, Civil Engineering, Computer Information Systems and Environmental Science Technology. The acquisition of a two-year technical degree coupled with a Certificate in GIS Technology will make a graduate more marketable in his/her respective field. Those pursuing a B.A. or B.S. degree in geography will also find the curriculum tailored to their respective degree program.
The GIS Technology Certificate requires the completion of eighteen (18) credit hours of coursework. Non-certificate seeking students are free to take courses in GIS. All students pursuing the certificate must take the designated four core courses and technical electives.

Certificate

Geographic Information Systems Technology - 4507023029
(Offered at BLC)

Technical Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS 110</td>
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</tr>
<tr>
<td>GIS 120</td>
<td>3</td>
</tr>
<tr>
<td>GIS 210</td>
<td>3</td>
</tr>
<tr>
<td>CIT 105</td>
<td>3</td>
</tr>
<tr>
<td>Technical Electives*</td>
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</tr>
</tbody>
</table>

Total Credits: 18

Technical Electives*: Choose six (6) credits from the following Technical Elective Courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>GEO 130</td>
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<td>GEO 162</td>
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<td>CIT 170</td>
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<tr>
<td>EST 160</td>
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<td>EST 250</td>
<td>3</td>
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<td>CAD 100</td>
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<tr>
<td>CET 150</td>
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<tr>
<td>CET 220</td>
<td>3</td>
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</table>

Associate in Applied Science

Global Studies - 3020017019
(Offered at JFC)

Global Studies

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
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<td>ENG 102</td>
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<td>ENG 105</td>
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<td>MAT 146</td>
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<tr>
<td>MAT 150</td>
<td>3</td>
</tr>
<tr>
<td>COM 254</td>
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Global Studies Heritage

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<tr>
<td>Global Studies Heritage</td>
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<tr>
<td>Global Studies Humanities/Fine Arts</td>
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<tr>
<td>Global Studies Natural Science/Business</td>
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<tr>
<td>Global Studies Social Interaction</td>
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</tr>
</tbody>
</table>

GBS 290 
Global Studies Capstone Course: 3

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 list.
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>
<thead>
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<tr>
<td>Foreign Language</td>
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<td>Global Studies Heritage</td>
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<td>Global Studies Natural Science/Business</td>
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<tr>
<td>Global Studies Social Interaction</td>
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</tbody>
</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 and Wellness Technology

The Health and Wellness Technology degree offers a flexible, innovative curriculum designed to meet the changing needs of the health care marketplace. The program will educate students in the principles of integrative 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, and athletic programs at the high school, college, or professional level.

The Massage Therapy Certificate Program will train the Massage Therapist in techniques ranging from an 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 model, 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 practice.
### Certificate

**Massage Therapy Track - 510999701**  
*(Offered at GTW)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
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<tr>
<td>BIO 137</td>
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<td>BIO 139</td>
<td>4</td>
</tr>
<tr>
<td>PSY 110</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<td>Heritage/Humanities</td>
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<td>0-3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>3 (3)</td>
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<td>AHS 115</td>
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<tr>
<td>CPR 100</td>
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<td>SFA 100</td>
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**Total Credits (AAS)**  
**65-68**

### Certificate

**Health Care Foundations-Basic - 5100003030**  
*(Offered at ASC, JFC)*

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**Health Care Foundations-Intermediate - 5100003020**  
*(Offered at ASC, JFC)*

<table>
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<tbody>
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<td>HST 101</td>
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<td>HST 102</td>
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<tr>
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<td>2</td>
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<tr>
<td>AHS 115</td>
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<td><strong>Subtotal</strong></td>
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</table>

**Health Care Informatics**

The Health Care Informatics (HCI) program provides a tremendous advantage to health care practitioners through the combination of health care concepts and information technology management that is an integral part of the health care industry. The HCI certificates increase practitioner knowledge and skills that are required to aid in the reduction of health care costs, expanding access to quality care and improving the quality of services. Health Care Informatics is a discipline that integrates information science and computer science into the health care professions; thereby, gaining the ability to combine resources, devices and methods required for the acquisition, storage, retrieval and use of collected information and data in health sciences and biomedicine. Health Care Informaticists work in a variety of environments, including hospitals, clinics, physician offices, public health agencies, technology firms/vendors, research facilities and insurance firms. Enrollment in the HCI courses requires a minimum of an associate degree in health care, or a related field, or by instructor consent. Enrollment in the HIC-PM course requires completion of the Health Care Informatics certificate.

### Certificate

**Health Care Informatics - 5107073049**  
*(Offered at MDC)*

<table>
<thead>
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<th>Course</th>
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<tbody>
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</table>

**Health Care Informatics – Project Management - 5107073059**  
*(Offered at MDC)*

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<tr>
<td>HCI 240</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</tr>
</tbody>
</table>

### 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.
**Health Education**

The Personal Trainer Certificate offers a flexible, innovative curriculum designed to meet the changing needs of the wellness promotion and health care marketplace. The program will provide students with the skills and knowledge necessary to develop and implement exercise programs for healthy individuals or those who have medical clearance to exercise. Work settings include but are not limited to spas, fitness centers, weight loss clinics, corporate wellness centers, private practice, and high school athletic programs.

**Certificate**

**Personal Trainer – 5109993029**

(Offered at GTW)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MIT 103</td>
<td>Medical Office 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>AHS 115</td>
<td>Medical Terminology</td>
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<tr>
<td>CPR 100</td>
<td>CPR for the Healthcare Professional</td>
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<tr>
<td>SFA 100</td>
<td>Safety and First Aid</td>
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</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management OR</td>
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<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
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<td>KHP 150</td>
<td>Personal Health Behavior</td>
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<tr>
<td>KHP 160</td>
<td>Personal Nutrition and Fitness</td>
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<tr>
<td>KHP 225</td>
<td>Exercise Techniques and Physical Training</td>
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<tr>
<td>KHP 235</td>
<td>Personal Trainer Practicum</td>
<td>2</td>
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</table>

**Total Credits**

23

**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 certificate examination.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first HIT course.

The Associate in Applied 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 Code</th>
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<th>Credits</th>
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<tbody>
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<td>ENG 101</td>
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<td>(3)</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>(3)</td>
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<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 OR</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>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>(3)</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>(3)</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology OR</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>(3)</td>
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<td>HUM 101</td>
<td>Heritage/Humanities</td>
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**Total Credits**

63-67

**Technical Course Requirements:**

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<th>Course Title</th>
<th>Credits</th>
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</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>
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<td>AHS 115</td>
<td>Medical Terminology</td>
<td>(3)</td>
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<tr>
<td>HIT 100</td>
<td>Introduction to Healthcare Delivery Systems</td>
<td>(3)</td>
</tr>
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<td>HIT 105</td>
<td>Patho/Pharm for Health Information Professionals</td>
<td>(4)</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 211</td>
<td>Health Care Management &amp; Statistics</td>
<td>(3)</td>
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<tr>
<td>HIT 215</td>
<td>Clinical Practicum</td>
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</tbody>
</table>

**Total Credits**

41

**NOTE:** BIO 137 and BIO 139 are required at JCTC.

**Certificate**

**Medical Record Coding Specialist – 5107073019**

(Offered at GTW, JFC)

<table>
<thead>
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<th>Course Title</th>
<th>Credits</th>
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<td>Medical Terminology from Greek or Latin OR</td>
<td>(3)</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>(3)</td>
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<td>AHS 115</td>
<td>Medical Terminology</td>
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<td>BIO 135</td>
<td>Human Anatomy and Physiology with laboratory OR</td>
<td>(4)</td>
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<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
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<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
<td>(4)</td>
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<tr>
<td>HIT 100</td>
<td>Introduction to Health Information Technology</td>
<td>(3)</td>
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<tr>
<td>HIT 105</td>
<td>Patho/Pharm for Health Information Professionals</td>
<td>(4)</td>
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<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>
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<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>
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<td>HIT 211</td>
<td>Health Care Management &amp; Statistics</td>
<td>(3)</td>
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<tr>
<td>HIT 215</td>
<td>Clinical Practicum</td>
<td>(4)</td>
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</table>

**Total Credits**

33-37

**Release of Information Data Specialist – 5107073039**

(Offered at GTW, JFC)

<table>
<thead>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIT 100</td>
<td>Introduction to Health Information Technology</td>
<td>(3)</td>
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<tr>
<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
<td>(2)</td>
</tr>
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</table>

**Total Credits**

5
**Health Physics**

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 hazards are covered. Emphasis is placed on the proper use of survey instrumentation to detect and measure occupational radiation 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.

**Certificate**

**Radiation Control Technician - 5122053039**

(Offered at WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HPH 100</td>
<td>Health Physics Fundamentals</td>
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<tr>
<td>HPH 101</td>
<td>Health Physics I</td>
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<tr>
<td>HPH 102</td>
<td>Health Physics II</td>
<td>3</td>
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<td>HPH 201</td>
<td>Nuclear Instrumentation and Measurement I</td>
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<td>HPH 202</td>
<td>Nuclear Instrumentation and Measurement II</td>
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</table>

Total Credits 17

---

**Health Science Technology**

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.

**Certificate**

**Medical Office Radiology**

(Offered at ASC, HPC, JFC, WKC)

<table>
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<th>Course Code</th>
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<td>Medical Office Terminology</td>
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Total Credits 3

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**Certificate**

**Medical Coding**

(5100007019)

(Offered at ASC, HPC, JFC, WKC)

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<th>Course Title</th>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
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Total Credits 3

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**Certificate**

**Advanced Nursing Assistant**

(5102004039)

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(5102004039)
Healthcare Technology Management

The Healthcare Technology Management (HTM) 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 healthcare technology management 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

Healthcare Technology Management – 1504017019

(Offered at MDC)

General Education Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<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</td>
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<td>MAT 150</td>
<td>College Algebra</td>
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<tr>
<td>PHY 171</td>
<td>Applied Physics</td>
<td>4</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td></td>
<td>3</td>
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<tr>
<td>Heritage/Humanities</td>
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Technical Support Courses

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<tr>
<td>AIT 1001</td>
<td>Basic Electrical Knowledge</td>
<td>2</td>
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<tr>
<td>AIT 1101</td>
<td>Electrical Power Distribution</td>
<td>1</td>
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<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computing (fulfills digital literacy requirement)</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIT 160</td>
<td>Introduction to Networking Concepts</td>
<td>4</td>
</tr>
<tr>
<td>CIT 180</td>
<td>Security Fundamentals</td>
<td>3</td>
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Technical Courses

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<tbody>
<tr>
<td>HTM 100</td>
<td>The Healthcare Technology Management Profession</td>
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<tr>
<td>HTM 110</td>
<td>Environmental Risks and Precautionary Measures for the HTM Professional</td>
<td>1</td>
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<tr>
<td>HTM 120</td>
<td>Essentials of Biomedical Electronics I</td>
<td>2</td>
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<tr>
<td>HTM 125</td>
<td>Essentials of Biomedical Electronics II</td>
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<td>HTM 130</td>
<td>Medical Equipment Management I</td>
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<tr>
<td>HTM 140</td>
<td>Science Principles Employed in Medical Technologies</td>
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<tr>
<td>HTM 200</td>
<td>Patient Care Support and Management Systems</td>
<td>2</td>
</tr>
<tr>
<td>HTM 210</td>
<td>Diagnostic Medical Equipment and Imaging Modalities</td>
<td>2</td>
</tr>
<tr>
<td>HTM 220</td>
<td>Laboratory Devices, Instruments, and Analyzers</td>
<td>2</td>
</tr>
<tr>
<td>HTM 230</td>
<td>Medical Equipment Management II</td>
<td>2</td>
</tr>
<tr>
<td>HTM 250</td>
<td>Introduction to Medical-Based IT Networks and Standards</td>
<td>2</td>
</tr>
<tr>
<td>HTM 260</td>
<td>Radiographic Imaging Modalities</td>
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<tr>
<td>HTM 270</td>
<td>Therapeutic Equipment Modalities I</td>
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<tr>
<td>HTM 275</td>
<td>Therapeutic Equipment Modalities II</td>
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<td>HTM 280</td>
<td>General Care Monitoring and Instrumentation</td>
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<td>HTM 285</td>
<td>Critical Care Monitoring and Instrumentation</td>
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<td>HTM 290</td>
<td>Clinical for the Healthcare Technology Management Professional</td>
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Elective

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<tr>
<td>HTM 299</td>
<td>Selected Topics of Investigation in Healthcare</td>
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Certificate

Foundations in Healthcare Technology Networking Systems - 1504013019

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computing (fulfills digital literacy requirement)</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software</td>
<td>4</td>
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<tr>
<td>CIT 160</td>
<td>Introduction to Networking Concepts</td>
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</tr>
<tr>
<td>CIT 180</td>
<td>Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>HTM 250</td>
<td>Introduction to Medical-Based IT Networks and Standards</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
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</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, back filling, 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)

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<th>Course Title</th>
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<td>Introduction to Computers</td>
<td>3</td>
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<tr>
<td>EFM 100</td>
<td>Personal Financial Management</td>
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<tr>
<td>HEO 100</td>
<td>Heavy Equipment Operations I</td>
<td>12</td>
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<tr>
<td>HEO 125</td>
<td>Special Problems I</td>
<td>3</td>
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<tr>
<td>HEO 200</td>
<td>Heavy Equipment Operation II</td>
<td>7</td>
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<tr>
<td>HEO 225</td>
<td>Special Problems I</td>
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<td>WPP 200</td>
<td>Workplace Principles</td>
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Recommended Elective:

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<tr>
<td>HEO 215</td>
<td>Heavy Equipment Operations (1-4)</td>
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Certificate

Backhoe Operator - 4902023019

(Offered at HZC, SEC)

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HEO 109</td>
<td>Power Shovel Backhoe Operator</td>
<td>2</td>
</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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Bulldozer Operator - 4902023029

(Offered at HZC, SEC)

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HEO 111</td>
<td>Bulldozer Operator</td>
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<tr>
<td>HEO 125</td>
<td>Special Problems</td>
<td>3</td>
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<tr>
<td><strong>Total Credits</strong></td>
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Front-End Loader Operator - 4902023039

(Offered at HZC, SEC)

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HEO 105</td>
<td>Utility Tractor Loader Operator</td>
<td>4</td>
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<tr>
<td>HEO 125</td>
<td>Special Problems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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Historic Information Management

Archival Management
Trains individuals to arrange, preserve, and present archival materials for use, and instructs students in the basics of working in either public or private archives. The program will also provide students with a context for making decisions about the worthiness of material for archiving. The program is designed for students seeking entry into the field of archival management and those already working in the field.

Museum Management
Prepares students for entry level work in the museum field and provides technical training for persons working in museums. Among the topics addressed by the courses are: the basics of collection development and cataloging, exhibit design, work with the public, and the use of computer technology in the museum environment.

Records Management
Focuses on training for persons responsible for the efficient management of an organization’s recorded information. Students will learn to identify the content, value and importance of recorded information and through a comprehensive understanding of the “information life cycle” learn to organize, manage and deliver that recorded information in a timely and efficient manner.

Certificates
Archival Management - 5401053029
(Offered at SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
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</tr>
<tr>
<td>HIM 102</td>
<td>3</td>
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<tr>
<td>HIS 240</td>
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<tr>
<td>HPT 100</td>
<td>3</td>
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<tr>
<td>HPT 101</td>
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<td>ISX 101</td>
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Available Completely Online

Museum Management - 5401053019
(Offered at SEC)

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<tbody>
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<td>HIS 240</td>
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<tr>
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Available Completely Online

Records Management - 5401053039
(Offered at SEC)

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<tbody>
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<td>HIS 240</td>
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<tr>
<td>OST 160</td>
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<td>HPT 100</td>
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<tr>
<td>Total</td>
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</table>

Available Completely Online

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
(Offered at SEC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
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<td>HPT 200</td>
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<td>HPT 204</td>
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<td>HPT 298</td>
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<td>Total</td>
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*Technical Electives: Select a minimum of 8 credit hours
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.

Associate in Applied Science
Homeland Security/Emergency Management - 4399997019
(Offered at BLC, WKC)

<table>
<thead>
<tr>
<th>General Education Core</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Written Communication</td>
<td>3</td>
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<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
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<td>Heritage/Humanities</td>
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Technical Core or Support Courses

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<th>Course Title</th>
<th>Credit Hours</th>
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<tr>
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<tr>
<td>HSM 110</td>
<td>Introduction to Emergency Management</td>
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<tr>
<td>CRJ 110</td>
<td>Principles of Asset Protection AND</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 210</td>
<td>Physical Security Technology &amp; Systems</td>
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<tr>
<td>LSI 120</td>
<td>Comprehensive Security Specialist AND</td>
<td>(4)</td>
</tr>
<tr>
<td>LSI 146</td>
<td>Crisis Management/Contingency Planning</td>
<td>(2)</td>
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<tr>
<td>HSM 225</td>
<td>Issues and Ethics in Homeland Security</td>
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<td></td>
<td><strong>Total Degree Requirements</strong></td>
<td><strong>63-66</strong></td>
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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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</thead>
<tbody>
<tr>
<td>LSI 140</td>
<td>Managing Terrorism &amp; Other Crises</td>
<td>1</td>
</tr>
<tr>
<td>LSI 150</td>
<td>Professional Locksmithing</td>
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<tr>
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Fire Science Track - 439999701
(Offered at BLC, WKC)

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>FRS 102</td>
<td>Firefighter Basic Skills I</td>
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<td>FRS 103</td>
<td>Firefighters Basic Skills II</td>
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<td>FRS 104</td>
<td>Firefighter Intermediate Skills I</td>
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<td>FRS 105</td>
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Criminal Justice Track - 439999702
(Offered at BLC, WKC)

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<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CRJ 100</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 204</td>
<td>Criminal Investigations</td>
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<td>CRJ 215</td>
<td>Introduction to Law Enforcement</td>
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<td>CRJ 217</td>
<td>Criminal Procedures</td>
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<td>CRJ 279</td>
<td>Terrorism and Political Violence</td>
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Security Management Track - 439999703
(Offered at BLC, WKC)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>LSI 140</td>
<td>Managing Terrorism &amp; Other Crises</td>
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<tr>
<td>LSI 150</td>
<td>Professional Locksmithing</td>
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Certificate

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>HSM 100</td>
<td>Introduction to Homeland Security</td>
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</tr>
<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 OR</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 210</td>
<td>Physical Security Technology &amp; Systems</td>
<td>3</td>
</tr>
<tr>
<td>LSI 120</td>
<td>Comprehensive Security Specialist AND</td>
<td>3</td>
</tr>
<tr>
<td>LSI 146</td>
<td>Crisis Management/Contingency Planning</td>
<td>(2)</td>
</tr>
<tr>
<td>LSI 225</td>
<td>Issues and Ethics in Homeland Security</td>
<td>(4)</td>
</tr>
<tr>
<td>AHS 140</td>
<td>Introduction to Public and Community Health</td>
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</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td>3</td>
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<tr>
<td>FRS 101</td>
<td>Introduction to Fire Science</td>
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</tr>
<tr>
<td>FRS 2061</td>
<td>Emergency Medical Technician</td>
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<tr>
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<td><strong>HSEM Specialist Certificate</strong></td>
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</table>
### 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**  
*(Offered at JFC, OWC)*

**General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Quantitative Reasoning</td>
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<tr>
<td>Natural Sciences</td>
<td>3</td>
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<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
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</tr>
<tr>
<td>Written Communication</td>
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<tr>
<td><strong>Subtotal</strong></td>
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**Technical Core:**

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<tr>
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<tr>
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<td>4</td>
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<tr>
<td>HRT 120 Turf Management OR</td>
<td>4</td>
</tr>
<tr>
<td>HRT 160 Retail Floral Design AND</td>
<td>4</td>
</tr>
<tr>
<td>HRT 161 Retail Floral Design Lab</td>
<td>2</td>
</tr>
<tr>
<td>HRT 130 Landscape Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>HRT 131 Landscape Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>HRT 150 Horticulture Business Management</td>
<td>3</td>
</tr>
<tr>
<td>HRT 210 Landscape Design</td>
<td>4</td>
</tr>
<tr>
<td>HRT 240 Greenhouse Management</td>
<td>4</td>
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<td>HRT 241 Greenhouse Management Lab</td>
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<td><strong>Subtotal</strong></td>
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*Must meet computer/digital literacy requirement.*

**Science Track - 010601701**  
*(Offered at JFC, OWC)*

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<th>Course</th>
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<td>COED 198 Practicum</td>
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<td>HRT 104 Introduction to Herbaceous Plants</td>
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<tr>
<td>HRT 108 Introduction to Woody Plants</td>
<td>4</td>
</tr>
<tr>
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</table>

**Total Science Track Credits**  

**63-68**

**Business Track - 010601702**  
*(Offered at JFC, OWC)*

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<tr>
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<tbody>
<tr>
<td>COE 199 Cooperative Education OR</td>
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<tr>
<td>COED 198 Practicum</td>
<td>2</td>
</tr>
<tr>
<td>ACT 101 Fundamentals of Accounting I</td>
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</tr>
<tr>
<td>BAS 200 Small Business Management</td>
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</tr>
<tr>
<td>BMO 170 Introduction to Business Management</td>
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</tr>
<tr>
<td>OST 215 Office Procedures</td>
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<tr>
<td>BAS 267 Introduction to Business Law</td>
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**Total Business Track Credits**  

**61-66**

### Diploma

**Landscape Technology - 0106014009**  
*(Offered at BSC, JFC, OWC)*

**General Education:**

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<th>Area</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>1</td>
<td>Written Communication, Oral Communications, Heritage/Humanities</td>
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</tr>
<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, Quantitative Reasoning</td>
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**Technical:**

<table>
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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Computer/Digital Literacy*</td>
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<tr>
<td>COE 199 Cooperative Education OR</td>
<td>6</td>
</tr>
<tr>
<td>COED 198 Practicum</td>
<td>3</td>
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<tr>
<td>HRT 104 Introduction to Herbaceous Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 108 Introduction to Woody Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 120 Turf Management OR</td>
<td>4</td>
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<tr>
<td>HRT 160 Retail Floral Design AND</td>
<td>4</td>
</tr>
<tr>
<td>HRT 161 Retail Floral Design Lab</td>
<td>2</td>
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<tr>
<td>HRT 130 Landscape Maintenance</td>
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<tr>
<td>HRT 131 Landscape Maintenance Lab</td>
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<td>HRT 210 Landscape Design</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>30-32</strong></td>
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</table>

**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 BSC, JFC, MYC, OWC)*

**General Education:**

<table>
<thead>
<tr>
<th>Area</th>
<th>Courses</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, Quantitative Reasoning</td>
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**Technical:**

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<th>Credits</th>
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</thead>
<tbody>
<tr>
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<td>COE 199 Cooperative Education OR</td>
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<td>COED 198 Practicum</td>
<td>3</td>
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<tr>
<td>HRT 104 Introduction to Herbaceous Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 108 Introduction to Woody Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 110 Nursery Management</td>
<td>4</td>
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<tr>
<td>HRT 120 Turf Management OR</td>
<td>4</td>
</tr>
<tr>
<td>HRT 160 Retail Floral Design AND</td>
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<tr>
<td>HRT 161 Retail Floral Design Lab</td>
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**Total**  

**54-56**

### Certificates

**Greenhouse Operations - 0106013029**  
*(Offered at BSC, JFC, MYC, OWC)*

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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### Greenhouse Production – 10613019
*(Offered at OWC)*

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<tbody>
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<td>HRT 104 Introduction to Herbaceous Plants</td>
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<tr>
<td>HRT 240 Greenhouse Management</td>
<td>4</td>
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<tr>
<td>HRT 241 Greenhouse Management Lab</td>
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<td><strong>Total Credits</strong></td>
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### Horticulture Sales - 0106013119
*(Offered at BSC, JFC, MYC, OWC)*

<table>
<thead>
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<tbody>
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<td>HRT 104 Introduction to Woody Plants OR</td>
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<tr>
<td>HRT 108 Introduction to Herbaceous Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 120 Turf Management OR</td>
<td>4</td>
</tr>
<tr>
<td>HRT 160 Retail Floral Design AND</td>
<td>4</td>
</tr>
<tr>
<td>HRT 161 Retail Floral Design Lab</td>
<td>2</td>
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<tr>
<td>HRT 130 Landscape Maintenance</td>
<td>3</td>
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<tr>
<td>HRT 150 Horticulture Business Management</td>
<td>3</td>
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<tr>
<td>Electives (Horticulture Course List)</td>
<td>2-8</td>
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<td><strong>Total Credits</strong></td>
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### LandscapeInstallation - 0106013049
*(Offered at BSC, JFC, MYC, OWC)*

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>HRT 104 Introduction to Herbaceous Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 108 Introduction to Woody Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 130 Landscape Maintenance</td>
<td>3</td>
</tr>
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<td>HRT 131 Landscape Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>HRT 210 Landscape Design</td>
<td>4</td>
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<tr>
<td>Electives (Horticulture Course List)</td>
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<td><strong>Total Credits</strong></td>
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</table>

### LandscapePlanning - 0106013059
*(Offered at BSC, JFC, MYC, OWC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRT 104 Introduction to Herbaceous Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 108 Introduction to Woody Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 130 Landscape Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>HRT 131 Landscape Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>HRT 210 Landscape Design</td>
<td>4</td>
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<td>Electives (Horticulture Course List)</td>
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### Lawn Maintenance - 0106013069
*(Offered at BSC, JFC, MYC, OWC)*

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>HRT 120 Turf Management</td>
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<tr>
<td>HRT 130 Landscape Maintenance</td>
<td>3</td>
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<tr>
<td>HRT 131 Landscape Maintenance Lab</td>
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<td>Electives (Horticulture Course List)</td>
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### NurseryProduction - 10613079
*(Offered at ASC, BSC, JFC, MYC, OWC)*

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>HRT 108 Introduction to Woody Plants</td>
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</tr>
<tr>
<td>HRT 110 Nursery Management</td>
<td>4</td>
</tr>
<tr>
<td>HRT 240 Greenhouse Management</td>
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### NurseryOperations - 0106013089
*(Offered at BSC, JFC, MYC, OWC)*

<table>
<thead>
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<tbody>
<tr>
<td>HRT 108 Introduction to Woody Plants</td>
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<tr>
<td>HRT 110 Nursery Management</td>
<td>4</td>
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<tr>
<td>Electives (Horticulture Course List including COE198)</td>
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<tr>
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### 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.

### Associate in Applied Science

**Human Services - 4407017000**
*(Offered at BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, OWC)*

#### General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COM 181 Basic Public Speaking OR</td>
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<tr>
<td>COM 252 Introduction to Interpersonal Communication</td>
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<td>ENG 101 Writing I</td>
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<td>ENG 102 Writing II</td>
<td>3</td>
</tr>
<tr>
<td>HMS 110 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 223 Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities course</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning course</td>
<td>3</td>
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<td>Natural Sciences</td>
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<td><strong>Subtotal</strong></td>
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#### Technical Core:

<table>
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<tbody>
<tr>
<td>CIS 100 Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>CS 101 Introduction to Computing I</td>
<td>3</td>
</tr>
<tr>
<td>HMS 101 Human Services Survey</td>
<td>3</td>
</tr>
<tr>
<td>HMS 102 Values of Human Services in a Contemporary Society</td>
<td>3</td>
</tr>
<tr>
<td>HMS 103 Theories and Techniques in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HMS 104 Group Dynamics for Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HMS 250 Clinical Practice in Human Services OR</td>
<td>4</td>
</tr>
<tr>
<td>COE 199 Cooperative Education</td>
<td>4</td>
</tr>
<tr>
<td>Technical courses</td>
<td>6</td>
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<tr>
<td>Electives</td>
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<tr>
<td><strong>Subtotal</strong></td>
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#### Total Credits

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>64</strong></td>
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</table>

**Technical Courses: Choose six hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CRJ 101 Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 208 Delinquency and the Juvenile Justice System</td>
<td>3</td>
</tr>
<tr>
<td>EDP 203 Teaching Exceptional Learners in Regular Classrooms</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252 Introduction to Family Science</td>
<td>3</td>
</tr>
<tr>
<td>FAM 253 Human Sexuality: Development, Behavior and Attitudes</td>
<td>3</td>
</tr>
<tr>
<td>HS 225 Application of Assistive Technology for Persons with Disabilities (Course Inactive)</td>
<td>3</td>
</tr>
<tr>
<td>HMS 265 Working with Disabilities in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HMS 299 Special Topics in Human Services</td>
<td>1-3</td>
</tr>
</tbody>
</table>
Industrial Chemical Technology

This program is designed to prepare its graduates for entry-level positions in the areas of process operators, process technicians, and chemical technicians. Basic knowledge in the areas of chemical unit operations; organic, analytical and inorganic chemistry; mathematics; policies and practices in areas of environment, health and safety; process systems and control; and statistics for quality help the graduate to understand the operation of modern chemical industries.

Certificates

Direct Support Work - 4407013039
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, OWC, MDC, SEC)
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:

HMS/SWK 235/250............ Teaching Persons with Mental Retardation .... 3
PSY 230 Psychosocial Aspects of Death and Dying ......................... (3)
HMS/SWK 200................... Dynamics of Human Behavior .............. (3)

Total Credits 15

Information Management and Design

The Information Management & Design program prepares students for careers in various industries utilizing cutting-edge technology within graphic design, web design, project management and library professions. Students will specialize their degree from a choice of four tracks.

The Graphic Design track provides the concepts and skills needed to create and produce design projects such as brochures, flyers, newsletters, logos, product packaging, photo restorations and manipulations, multimedia presentations, simple illustrations, and web sites using industry-standard techniques and graphic design applications.

The Web Design track provides the concepts and skills needed to create and produce web sites using industry-standard techniques using graphic and web design, and video editing applications. The Web Design track graduates will have the ability to create and maintain professional sites and also be capable of working with other web professionals such as programmers, network administrators and database administrators as well as interfacing with management and clients.
The Project Management track focuses on the management of time-limited operations in terms of four constraints: time, cost, resources and specification. Students learn to identify priorities, organize assignments and deploy the necessary resources to accomplish projects on time and within specified budgets.

The Library and Information Technology track prepares graduates for paraprofessional library work.

The courses within the Graphic and Web Design options will assist with preparation for Adobe Certifications and the Certified Internet Webmaster (CIW) certification exam. The Library and Information Technology option courses may be used to meet Kentucky public library certification requirements.

The IMD program also offers two certificates within the web and graphic design options. The web and graphic design certificates provide up-to-date training in current industry-standard software and trends for practitioners in the fields as well as introductory education for beginning students. In addition, the IMD program offers a certificate in Digital Video for students interested in film editing and cinematic arts.

**Associate in Applied Science**

**Information Management and Design - 1108017019**

*(Offered at BLC)*

**General Education Courses**

- ENG 101 Writing I* .................................................. 3
- ENG 102 Writing II* .................................................. 3
- Quantitative Reasoning Course* ................................... 3
- Natural Sciences Course* .......................................... 3
- Heritage/Humanities Course* ..................................... 3
- Social/Behavioral Sciences Course* ............................. 3

**Subtotal** .......................................................... 18

**Core Content:**

- IMD 100 Introduction to Information Systems .................. 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** .......................................................... 21

**Subtotal (General Education & Core Content)** ............... 39

* *Satisfies General Education requirement for the AAS degree

---

**Project Management Track - 110801701**

*(Offered at BLC)*

- IMD 212 Advanced Microsoft Office Applications ............... 3
- IMD 235 Advanced Work Processing ................................ 3
- IMD 260 Integrated Project Management .......................... 3
- IMD 265 Project Management for Information Management & Business ................................................. 3
- IMD 267 Microsoft Project Software ................................ 3
- Accounting Course .................................................. 3
- Project Management Track Courses .............................. 6

**Choose from Project Management Track Courses:**

- ACC 202 Managerial Accounting ................................... 3
- MGT 267 Introduction to Business Law ............................ 3
- MGT 274 Human Resource Management ............................ 3
- MGT 288 Self Management .......................................... 3
- ECO 202 Principles of Macroeconomics ............................ 3
- ENG 203 Business Writing .......................................... 3
- IMD 114 Information Literacy ...................................... 3
- IMD 115 Introduction to Graphic Design .......................... 3
- IMD 127 Vector Design with Adobe Illustrator .................. 3
- IMD 128 Raster Design with Adobe Photoshop .................... 3
- IMD 175 Web Usability Design ..................................... 3
- IMD 180 Intermediate Web Design .................................. 3
- IMD 226 Advanced Desktop Publishing ............................ 3
- IMD 230 Advanced Web Design ..................................... 3
- IMD 232 Web Design with Adobe Dreamweaver ................... 3
- IMD 240 Multimedia Development for the Web ................. 3
- IMD 250 Digital Video Editing I .................................... 3
- IMD 290 Portfolio Practicum: Graphic Design .................. 3
- IMD 294 Seminar in Information Management & Design Technologies .......................... 3
- IMD 299 Selected Topics in Information Management & Design ................................................. 3
- Other Project Management Courses Approved by Program Coordinator ................................................. 1-3
- Other Computer & Information Technologies, Business, Communication, Fine Arts or other track appropriate courses approved by Program Coordinator ................................................. 1-3

**Subtotal** .......................................................... 24

**Total** .............................................................. 63

**Graphic Design Track - 110801702**

*(Offered at BLC)*

- IMD 115 Introduction to Graphic Design .......................... 3
- IMD 127 Vector Design with Adobe Illustrator .................. 3
- IMD 128 Raster Design with Adobe Photoshop .................... 3
- IMD 180 Intermediate Web Design .................................. 3
- IMD 226 Advanced Desktop Publishing ............................ 3
- IMD 280 Portfolio Practicum: Graphic Design .................. 3
- IMD 277 Typography .................................................. 3
- IMD 228 Advanced Photoshop OR .................................... 3
- IMD 229 Advanced Illustrator ........................................ 3

**Choose from Graphic Design Track Courses:**

- IMD 212 Advanced Microsoft Office Applications ............... 3
- IMD 235 Advanced Work Processing ................................ 3
- IMD 232 Web Design with Adobe Dreamweaver ................... 3
- IMD 240 Multimedia Development for the Web ................. 3
- IMD 250 Digital Video Editing ....................................... 3
- IMD 260 Integrated Project Management .......................... 3
- IMD 290 Portfolio Practicum: Graphic Design .................. 3
- IMD 294 Seminar in Information Management & Design Technologies .......................... 3
- IMD 299 Selected Topics in Information Management & Design ................................................. 3
- MGT 282 Principles of Marketing ................................... 3
- ENG 203 Business Writing .......................................... 3
- Other Graphic Design Courses Approved by Program Coordinator ................................................. 1-3
- Other 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 248 Library Information Technology Track Courses .......... 12
Choose a Total of 12 hours from the following:

LIT 130 Web Publishing for Public Libraries ................................................... 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
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 – 110801703
(Offered at BLC)

IMD 180 Intermediate Web Design ................................................................. 3
IMD 230 Advanced Web Design ..................................................................... 3
IMD 232 Web Design with Adobe Dreamweaver ............................................ 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 128 Raster Design with Adobe Photoshop .............................................. 3
IMD 160 Introduction to E-Commerce ............................................................. 3
IMD 175 Web Usability Design ...................................................................... 3
IMD 212 Advanced Microsoft Office Applications ....................................... 3
IMD 260 Integrated Project Management ....................................................... 3
IMD 265 Project Management for Information Management & Business .... 3
IMD 290 Photography ..................................................................................... 3
IMD 294 Seminar in Information Management & Design Technologies .... 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 Computer & Information Technologies, Architectural, Business,
Communication, Fine Arts or other Track
Appropriate Courses Approved by Program Coordinator . 1-3
Other Web or Graphic Design Courses
Approved by Program Coordinator .............................................................. 1-3

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.

The Certificate in Library Information Technology requires 15 credit hours.

Required:

LIT 115 Introduction to Reference Services ................................................. 3
IMD 114 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 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 280 Genealogy Services in Libraries OR ......................................... 3

3. Library Information Technology Elective

LIT elective: any LIT course above LIT 115 ............................................. 3

Total 15

Graphic Design – 1108013029
(Offered at BLC)

IMD 115 Introduction to Graphic Design ......................................................... 3
IMD 133 Beginning Web Design ................................................................... 3
IMD 126 Introduction to Desktop Publishing .............................................. 3
IMD 127 Vector Design with Adobe Illustrator ............................................ 3
IMD 128 Raster Design with Adobe Photoshop ............................................ 3
IMD 226 Advanced Desktop Publishing ...................................................... 3

Total 18

Web Design – 1108013039
(Offered at BLC)

IMD 133 Beginning Web Design ................................................................... 3
IMD 180 Intermediate Web Design ............................................................... 3
IMD 232 Web Design with Adobe Dreamweaver ............................................ 3
IMD 240 Multimedia Development for the Web ............................................ 3
IMD 250 Digital Video Editing I ...................................................................... 3

Total 15

Digital Video – 1108013049
(Offered at BLC)

IMD 128 Raster Design with Adobe Photoshop ............................................ 3
IMD 250 Digital Video Editing I ...................................................................... 3
IMD 255 Digital Video Editing II ..................................................................... 3
IMD 258 Visual Effects for Video ................................................................. 3

Total 12

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 the 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.

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 Technology programs.

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**  
*(Offered at GTW)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<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>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td></td>
<td></td>
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<tr>
<td>Heritage/Humanities</td>
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### Technical Core Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>IDL 101</td>
<td>Introduction to Instructional Design and Learning Tech</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>3</td>
</tr>
<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>
</tr>
<tr>
<td>IDL 123</td>
<td>Multimedia Design and Development</td>
<td>(3)</td>
</tr>
<tr>
<td>IDL 210</td>
<td>Instructional Design II</td>
<td>3</td>
</tr>
<tr>
<td>IDL 220</td>
<td>Business Management for Instructional Design and Learning Technology</td>
<td>3</td>
</tr>
<tr>
<td>IDL 240</td>
<td>Human Performance Consulting</td>
<td>3</td>
</tr>
<tr>
<td>IDL 290</td>
<td>Experiential Learning in Instructional Design</td>
<td>3</td>
</tr>
<tr>
<td>IDL 299</td>
<td>Instructional Design Capstone</td>
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</tr>
<tr>
<td>Subtotal</td>
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</table>

**Total Core Classes plus General Education**  
48

### Certificates

**Foundations of Instructional Design – 1305013029**  
*(Offered at GW)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
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<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>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>IDL 101</td>
<td>Introduction to Instructional Design and Learning Tech</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>3</td>
</tr>
<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>
</tr>
<tr>
<td>IDL 123</td>
<td>Multimedia Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>IDL 210</td>
<td>Instructional Design II</td>
<td>3</td>
</tr>
<tr>
<td>IDL 220</td>
<td>Business Management for Instructional Design and Learning Technology</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>
<td>3</td>
</tr>
<tr>
<td>IDL 260</td>
<td>Competency Models and Curriculum Design</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>24</td>
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</tbody>
</table>

**Advanced Instructional Design – 1305013049**  
*(Offered at GTW)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<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 &amp; Learning</td>
<td>3</td>
</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>
<td>3</td>
</tr>
<tr>
<td>IDL 260</td>
<td>Competency Models and Curriculum Design</td>
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</tr>
<tr>
<td>Total</td>
<td></td>
<td>18</td>
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</table>

**Instructional Facilitation – 1305013039**  
*(Offered at GTW)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>IDL 101</td>
<td>Introduction to Instructional Design and Learning Tech</td>
<td>3</td>
</tr>
<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>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>18</td>
</tr>
</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
Insurance and Risk Management – 5217013019
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INS 100</td>
<td>Introduction to Insurance and Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>INS 181</td>
<td>Foundations of Insurance Production</td>
<td>3</td>
</tr>
<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>
</tbody>
</table>

Total Credits 12

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 electro pneumatics. 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
Integrated Engineering Technology – 1442017019
(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</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</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities</td>
<td>3</td>
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</tbody>
</table>

Total Credits 18

Technical Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IET 102</td>
<td>Preventive Maintenance</td>
<td>2</td>
</tr>
<tr>
<td>IET 104</td>
<td>Blueprint Reading/Schematics</td>
<td>2</td>
</tr>
<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>
<tr>
<td>IET 109</td>
<td>Safety</td>
<td>3</td>
</tr>
<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>
</tr>
<tr>
<td>IET 206</td>
<td>Controls and Instrumentation</td>
<td>5</td>
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</tbody>
</table>

Subtotal 47

Total Credits 53

Certificate
Electrical Engineering Technology – 1442013029
(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IET 107</td>
<td>Basic Electricity/Electronics</td>
<td>3</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>
</tr>
<tr>
<td>IET 206</td>
<td>Controls and Instrumentation</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Credits 17

Mechanical Engineering Technology – 1442013019
(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IET 102</td>
<td>Preventive Maintenance</td>
<td>2</td>
</tr>
<tr>
<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>
<td>4</td>
</tr>
<tr>
<td>IET 120</td>
<td>Machine Tool Operations</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Credits 21
The Interactive Design Technology program prepares students for present and future employment in expanding fields of interactive advertising/marketing and animation. Employers of these graduates include advertising agencies, marketing companies, in-house agencies, movie studios, production companies and game developers.

Students will need to achieve a “C” or better in each class to remain in the program.

### Certificate

**3D Modeling Specialist – 0907023019**

(Offered at GTW, SKY)

- IDT 100 Fundamentals of Design ............................................ 3
- IDT 110 3D Modeling & Animation I .............................................. 4
- IDT 120 Digital Design Tools .................................................... 4
- IDT 210 3D Modeling & Animation II ............................................ 3
- IDT 170 Project Strategy ......................................................... 3
- IDT 250 Advanced Project and Portfolio Development ................. 3
- Computer/Digital Literacy Course .............................................. 0-3
- **Total Credits** 20-23

### Interdisciplinary Early Childhood Education

The Interdisciplinary Early Childhood Education Program is designed to provide students with 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)

- ENG 101 Writing I .............................................................. 3
- ENG 102 Writing II .............................................................. 3
- COM 181 Basic Public Speaking OR ......................................... 3
- COM 252 Introduction to Interpersonal Communications ............... (3)
- PSY 110 General Psychology .................................................. 3
- Heritage/Humanities ............................................................ 3-4
- Natural Sciences ................................................................. 3
- Quantitative Reasoning ......................................................... 3
- **Subtotal** 21-22

**Technical Core Courses**

- Computer/Digital literacy .................................................... 0-3
- IEC 101 Orientation to Early Childhood Education ....................... 3
- IEC 102 Foundations of Early Childhood Education ...................... 3
- IEC 120 Health, Safety & Nutrition OR ..................................... 3
- KHP 230 Human Health & Wellness OR .................................... (3)
- NFS 101 Human Nutrition and Wellness .................................... (3)
- **Total Credits** 39-42

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
- **Subtotal** 3

**Total Credits** 63-67

### Diploma

**Interdisciplinary Early Childhood Education - 1907094019**

(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SMC)

Area 1 =
- Written Communication, Oral Communications, or Heritage/Humanities ......................................................... 3
- **Subtotal** 6

Area 2 =
- Social/Behavioral Sciences, or Quantitative Reasoning .................. 3
- **Subtotal**

- 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 IECE ...................................... 3
- IEC 221 Creative Expressions in IECE ........................................ 3
- IEC 246 Sciences and Mathematics for IECE ............................... (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 IECE Practicum / Cooperative Education ......................... 3
- **Subtotal** 42-45

**Total Credits:** 48-51

### Certificate

**Interdisciplinary Early Childhood Education Technical Studies - 1907093019**

(Offered at ASC, BLC, ELC, HEC, HPC, JFC, MDC, MYC, OWC, SMC, WKC)

**Required:**

- 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 190 Applied Experiences in Early Childhood Education .........(3)

IEC 216 Literacy and Language in IECE ....................................3

IEC 221 Creative Expressions in IECE .................................3

IEC 246 Sciences and Mathematics for IECE .......................3

IEC 235 Introduction to Inclusive Education ..........................3

IEC 240 Administration of Early Childhood Education OR .......3

IEC 230 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 IECE Practicum/Cooperative Education ..........3

Total Credits 42

Child Care Assistant - 1907093039

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

Required:
IEC 101 Orientation to Early Childhood Education ................3
IEC 102 Foundations of Early Childhood Education ...............3
Any IEC course 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, OW, SEC, SMC, 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, OW, SEC, SMC, 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)

Life Skills is defined as a Total of five years (10,000 Hours) of paid, full-time work experience in a licensed child care facility. Two and one-half years (5,000 Hours) must have been within the last five (5) years.

---

School Age Child Care - 1907093069

(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, JFC, OW, SEC, SMC, WKC)

IEC 101 Orientation to Early Childhood Education ................3
IEC 102 Foundations of Early Childhood Education ...............3
IEC 130 Early Childhood Development ..................................3
IEC 200 Child Guidance ..................................................3
IEC 250 School Age Child Care .........................................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)

DMS 105 Introduction to Cardiology .....................................13
IVC 140 Invasive Cardiology I .............................................16
IVC 150 Invasive Cardiology II .............................................3
IVC 160 Invasive Cardiology Clinical Education I ..................6
IVC 165 Invasive Cardiology Clinical Education II .................6

Total Credits: 44

---

Locomotive Technology

Expertise in the inspection, repair, service and overhaul of locomotive electrical systems. Interpreting specifications from locomotive manuals, using testing procedures and equipment, diagnosing problems and performing repairs. To work in the railroad industry, following DOT guidelines.

Certificates

Locomotive Electrical Technician - 4902993029

(Offered at SMC)

CIS 100 Introduction to Computers OR ....................................3
CPU 150 Computer Fundamentals ..........................................3
MAT 126 Technical Algebra & Trigonometry .................(3)
DIT 112 Diesel Engine Repair ..........................................2
DIT 113 Diesel Engine Repair Lab ......................................2
ELT 110 Circuits I .......................................................5
ELT 114 Circuits II .....................................................5
ELT 210 Devices I ......................................................5
ELT 214 Devices II ....................................................5
EET 154 Electrical Construction I ....................................2
EET 155 Electrical Construction I Lab ................................2
EET 270 Electrical Motor Controls I .............................2
EET 271 Electrical Motor Controls I Lab ..........................2
EET 272 Electrical Motor Controls II ............................2
EET 273 Electrical Motor Controls II Lab ........................2
ENGT 242 Introduction to the Rail Industry .........................5
ENGT 240 Railroad Locomotive Electrical Systems ............2

Total Credits: 50
# 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

<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>MAT 110</td>
<td>Applied Mathematics or Higher General Education Quantitative Reasoning course</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences (Must be a different course from the ECO course selected in the Technical or Support Courses)</td>
<td>3</td>
<td></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>
</tbody>
</table>

### Subtotal

**18**

### Technical or Support Courses

- **Digital Literacy**: 0-3
- **LOM 180**: Project Management
- **ACC 201**: Financial Accounting
- **ACC 202**: Managerial Accounting
- **BAS 160**: Introduction to Business
- **BAS 282**: Principles of Marketing
- **BAS 283**: Principles of Management OR
- **BAS 287**: Supervisory Management
- **BAS 256**: International Business
- **BAS 289**: Operations Management
- **TEC 200**: Technical Communications OR
- **ENG 102**: Writing II
- **LOM 100**: Introduction to Logistics Management
- **LOM 101**: Transportation
- **LOM 102**: Supply Chain Management
- **LOM 202**: Applied Supply Chain Management
- **ECO 101**: Contemporary Economic Issues OR
- **ECO 150**: Global Economic Issues OR
- **ECO 201**: Principles of Microeconomics OR
- **ECO 202**: Principles of Macroeconomics Electives

### Subtotal

**42.5-50**

**Total Credits**: **60.5-68**

*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 assist in leading 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<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>
<td>3</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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</tr>
</tbody>
</table>

### Subtotal

**24**

### Core

- **BAS 160**: Introduction to Business
- **COE 199**: Cooperative Education OR
- **MFG 175**: Lean Operations
- **ELT 110**: Circuits I
- **ELT 201**: Statics and Strengths of Materials
- **BAS 289**: Operations Management
- **MFG 256**: Production Management
- **MFG 135**: Fundamentals of Mechatronics
- **QMS 101**: Introduction to Quality Systems

### Subtotal

**25-29**

### Technical Electives

- **BAS 287**: Supervisory Management
- **BAS 288**: Personal and Organizational Leadership
- **BRX 112**: Blueprint Reading for Machinists OR
- **BRX 120**: Basic Blueprint Reading
- **COE 199**: Cooperative Education
- **CAD 102**: Drafting Fundamentals OR
- **CAD 112**: Engineering Graphics
- **DFT 152**: Intermediate Computer Aided Drafting
- **EET 154**: Electrical Construction I
- **EET 155**: Electrical Construction I Lab
- **EET 264**: Rotating Machinery
- **EET 265**: Rotating Machinery Lab
- **EET 270**: Electrical Motor Controls I
- **EET 271**: Electrical Motor Controls I Lab
- **EET 272**: Electrical Motor Controls II
- **EET 273**: Electrical Motor Controls II Lab
- **EET 276**: Programmable Logic Controllers
- **EET 277**: Programmable Logic Controllers Lab
- **ELT 110**: Circuits I
- **ELT 114**: Circuits II
- **ELT 260**: Robotics and Industrial Automation
- **ETT 110**: Voice & Data Installer Level I

### Certificates

### Logistics Management – 5202033019

*(Offered at MYC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<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**

*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.*
FPX 100 Fluid Power ..........................................................3
FPX 101 Fluid Power Lab ..................................................2
IMT 150 Maintaining Industrial Equipment I .........................3
IMT 151 Maintaining Industrial Equipment I Lab ....................2
MFG 145 Manufacturing Processes OR .................................3
CMM 110 Fundamentals of Machine Tool – A ...........................(3)
CMM 112 Fundamentals of Machine Tool – B ...........................(4)
CMM 118 Metrology and Control Charts ...............................3
CMM 130 Manual Programming ............................................3
CMM 132 CAD/CAM/CNC ...................................................(3)
MFG 256 Production Management .........................................3
QMS 101 Introduction to Quality Systems ............................(3)
QMS 220 Quality Audits .....................................................3
QMS 240 Statistics for Quality I (if ST291 is not taken in the core)...3

Subtotal 14

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)

FPX 100 Fluid Power ..........................................................3
FPX 101 Fluid Power Lab ..................................................2
ELT 110 Circuits I ..........................................................5
IMT 150 Maintaining Industrial Equipment .........................3
IMT 151 Maintaining Industrial Equipment Lab ....................2
EET 270 Electrical Motor Controls I ....................................2
EET 271 Electrical Motor Controls I Lab .............................2

Total Credits 19

Quality Control - 1506133049
(Offered at GTW)

Core
BRX 112 Blueprint Reading for Machinists OR .....................4
BRX 120 Basic Blueprint Reading OR .................................(3)
CAD 102 Drafting Fundamentals OR .................................(4)
CAD 112 Engineering Graphics ..........................................(4)
CMM 118 Metrology and Control Charts ...............................3
QMS 101 Introduction to Quality Systems ............................3
QMS 220 Quality Audits .....................................................3
STA 220 Statistics OR ........................................................3
QMS 240 Statistics for Quality I (if ST291 is not taken in the core)...3

Subtotal 15-16

Total 21-22

Operations Management - 5202013369
(Offered at BSC, GTW)

Core
BAS 160 Introduction to Business ......................................3
BAS 287 Supervisory Management OR ..............................3
BAS 288 Personal and Organizational Leadership OR ............3
QMS 101 Introduction to Quality Systems ............................3
BAS 289 Operations Management OR ...............................3
MFG 256 Production Management ....................................(3)

Subtotal 9

Total 12

Exploratory Machining - 4805033039
(Offered at BSC)

CMM 110 Fundamentals of Machine Tools A AND ...............3
CMM 112 Fundamentals of Machine Tools B OR .................4
CMM 114 Fundamentals of Machine Tools ............................(7)

Total 7

Fundamentals of Mechatronics - 1500003219
(Offered at BSC)

MFG 135 Fundamentals of Mechatronics OR .......................6
MFG 125 Special Topics in Engineering Technology: ...............(3)
MFG 130 Special Topics in Engineering Technology: Fundamentals of Mechatronics – B ..................(3)

Total 6

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 BLC, ELC, OWC, WKC)

General Education:
ENG 101 Writing I ..........................................................3
MAT 116 Technical Mathematics OR ..................................3
MAT 126 Technical Algebra & Trigonometry OR .................(3)
STA 127 Higher Level Quantitative Reasoning Course ..........(3)
NAT 116 Natural Sciences ..................................................3
SOC 118 Social/Behavioral Sciences ....................................3
HUM 116 Heritage/Humanities ..........................................3
SPO 110 Oral Communications ..........................................3

Subtotal 18

Technical Core:
ELT 110 Circuits I .........................................................5
ELT 114 Circuits II .......................................................5
EET 250 National Electric Code .........................................4
EET 264 Rotating Machinery .............................................2

General Education:
ENG 101 Writing I ..........................................................3
MAT 116 Technical Mathematics OR ..................................3
MAT 126 Technical Algebra & Trigonometry OR .................(3)
STA 127 Higher Level Quantitative Reasoning Course ..........(3)
NAT 116 Natural Sciences ..................................................3
SOC 118 Social/Behavioral Sciences ....................................3
HUM 116 Heritage/Humanities ..........................................3
SPO 110 Oral Communications ..........................................3

Subtotal 18

Technical Core:
ELT 110 Circuits I .........................................................5
ELT 114 Circuits II .......................................................5
EET 250 National Electric Code .........................................4
EET 264 Rotating Machinery .............................................2

170
### Industrial Electrician Track - 460302701
*(Offered at BLC, ELC, OWC, WKC)*

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<td>Electrical Motor Controls II Lab AND</td>
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**Subtotal**: 25

**Total Credits**: 66-68

### Construction Electrician Track - 460302702
*(Offered at BLC, ELC, OWC, WKC)*

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**Subtotal**: 17-18

**Total Credits**: 60-61

### Motor Controls Electrician Track - 460302703
*(Offered at BLC, OWC, WKC)*

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<td>FPX 101</td>
<td>Fluid Power Lab OR</td>
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**Subtotal**: 17-20

**Total Credits**: 60-63

### Diploma

**Electrical Technology - 460302409**
*(Offered at ASC, BLC, BSC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)*

### General Education:

**Area 1**

- Written Communication OR
- Heritage/ Humanities OR
- Oral Communications

**Area 2**

- MAT 116 Technical Mathematics OR
- MAT 126 Technical Algebra & Trigonometry OR
- Higher Level Mathematics Course

**Technical Core:**

- ELT 110 Circuits I
- ELT 114 Circuits II
- EET 250 National Electric Code
- EET 264 Rotating Machinery
- EET 265 Rotating Machinery Lab
- EET 270 Electrical Motor Controls I
- EET 271 Electrical Motor Controls I Lab
- *Computer/Digital Literacy OR*

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**: 6

### Industrial Electrician Track - 460302401
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)*

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**Subtotal**: 25

**Total Credits**: 54-56

### Construction Electrician Track - 460302402
*(Offered at BLC, BSC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)*

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**Subtotal**: 17-18

**Total Credits**: 48-49

### Motor Controls Electrician Track - 460302403
*(Offered at BLC, BSC, OWC, WKC)*

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**Subtotal**: 17-20

**Total Credits**: 48-51
### Certificates

#### Electrical Construction - 4603023029

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

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<td>EET 264 Rotating Machinery AND</td>
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#### Electrician Trainee Level I - 4603023039

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

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#### Electrician Trainee Level II - 4603023059

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

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#### Residential Electricity Level I - 4603023049

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

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#### Residential Electricity Level II - 4603023069

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

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<tr>
<td>EET 245 Electrical Construction AND</td>
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<tr>
<td>EET 264 Rotating Machinery AND</td>
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</tr>
<tr>
<td>EET 265 Rotating Machinery Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>EET 270 Electrical Motor Controls I AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 271 Electrical Motor Controls I Lab OR</td>
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</tr>
<tr>
<td>EET 268 Rotating Machinery Electrical Motor Controls I AND</td>
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<tr>
<td>EET 269 Rotating Machinery Electrical Motor Controls I Lab</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</tbody>
</table>

### Electrical Motor Control Level I - 4603023079

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

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ELT 110 Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ELT 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 AND</td>
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</tr>
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<td>EET 264 Rotating Machinery AND</td>
<td>2</td>
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<td>2</td>
</tr>
<tr>
<td>EET 266 Rotating Machinery and Transformers AND</td>
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</tr>
<tr>
<td>EET 267 Rotating Machinery and Transformers Lab</td>
<td>3</td>
</tr>
<tr>
<td>EET 250 National Electrical Code</td>
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<td>EET 270 Electrical Motor Controls I AND</td>
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<td>EET 271 Electrical Motor Controls I Lab AND</td>
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<td>EET 264 Rotating Machinery AND</td>
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<td>EET 265 Rotating Machinery Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>EET 268 Rotating Machinery Electrical Motor Controls I AND</td>
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<td>EET 269 Rotating Machinery Electrical Motor Controls I Lab</td>
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<tr>
<td>CPU 150 Computer Fundamentals OR</td>
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</tr>
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<td>CIS 100 Introduction to Computers</td>
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</tbody>
</table>

*May be offered in different combinations.

### Electrical Motor Control Level II - 4603023089

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

<table>
<thead>
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<tr>
<td>ELT 114 Circuits II</td>
<td>5</td>
</tr>
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<td>EET 150 Transformers AND</td>
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<td>EET 151 Transformers Lab AND</td>
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<td>EET 250 National Electrical Code</td>
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</tr>
<tr>
<td>EET 264 Rotating Machinery AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 265 Rotating Machinery Lab AND</td>
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<tr>
<td>EET 267 Rotating Machinery and Transformers Lab</td>
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<tr>
<td>EET 250 National Electrical Code</td>
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<td>EET 270 Electrical Motor Controls I AND</td>
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<td>EET 271 Electrical Motor Controls I Lab AND</td>
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<td>EET 264 Rotating Machinery AND</td>
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<td>EET 265 Rotating Machinery Lab AND</td>
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<tr>
<td>EET 268 Rotating Machinery Electrical Motor Controls I AND</td>
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<td>EET 269 Rotating Machinery Electrical Motor Controls I Lab</td>
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<tr>
<td>CPU 150 Computer Fundamentals OR</td>
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<tr>
<td>CIS 100 Introduction to Computers</td>
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* May be offered in different combinations.

### Voice and Data Wiring Installer Level II - 4603023109

(Offered at ASC, GTW, HPC, MYC, SEC, SMC)

<table>
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<tr>
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<td>EET 253 Electrical Construction II Lab</td>
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<td>ETT 114 Fiber Optics Systems</td>
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</tr>
<tr>
<td>ETT 116 Residential Network Wiring</td>
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### Voice and Data Wiring Installer Level I - 4603023099

(Offered at ASC, BLC, ELC, GTW, SM)

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<tbody>
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<td>EET 155 Electrical Construction I Lab</td>
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<td>ETT 110 Voice and Data Installer Level I</td>
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<td><strong>Total Credits</strong></td>
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</table>
MIT: Industrial Maintenance Technology

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).

**Associate in Applied Science**

<table>
<thead>
<tr>
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<td>ETT 112</td>
<td>Basic Electrical Theory</td>
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<td>ETT 113</td>
<td>Basic Electrical Theory Lab</td>
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<tr>
<td>ETT 120</td>
<td>Project Management</td>
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<td>ETT 122</td>
<td>Voice and Data Installer Technician</td>
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<td>ETT 123</td>
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<td>ETT 199</td>
<td>Cooperative Education for Voice and Data Wiring Technician</td>
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**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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACR 100</td>
<td>Refrigeration Fundamentals</td>
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<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 250</td>
<td>Cooling and Dehumidification</td>
<td>3</td>
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<tr>
<td>ACR 251</td>
<td>Cooling and Dehumidification Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 260</td>
<td>Heating and Humidification</td>
<td>3</td>
</tr>
<tr>
<td>ACR 261</td>
<td>Heating and Humidification Lab</td>
<td>2</td>
</tr>
<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading for Machinist</td>
<td>3</td>
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<tr>
<td>BRX 230</td>
<td>Mechanical Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design OR</td>
<td>3</td>
</tr>
<tr>
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</table>

**Subtotal 64-68**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading for Machinist</td>
<td>3</td>
</tr>
<tr>
<td>BRX 230</td>
<td>Mechanical Blueprint Reading</td>
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<td><strong>Subtotal</strong></td>
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**Subtotal 18**

**Total Credits**

MIT: Industrial Maintenance Technology - 4603023119

(Offered at BLC, ELC, GTW, HEC, JFC, SKY, SMC, WKC)

<table>
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<th>Credits</th>
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<td>Technical Algebra &amp; Trigonometry</td>
<td>3</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra &amp; Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>11</strong></td>
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</tbody>
</table>

Technical Electives List*:

**If courses equaling 10 credits are taken, five (5) credits may be used as electives.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACR 100</td>
<td>Refrigeration Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 250</td>
<td>Cooling and Dehumidification</td>
<td>3</td>
</tr>
<tr>
<td>ACR 251</td>
<td>Cooling and Dehumidification Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 260</td>
<td>Heating and Humidification</td>
<td>3</td>
</tr>
<tr>
<td>ACR 261</td>
<td>Heating and Humidification Lab</td>
<td>2</td>
</tr>
<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading for Machinist</td>
<td>3</td>
</tr>
<tr>
<td>BRX 230</td>
<td>Mechanical Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design OR</td>
<td>3</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>18</strong></td>
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**Subtotal 64-68**

**Technical Electives List**: 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACR 100</td>
<td>Refrigeration Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 250</td>
<td>Cooling and Dehumidification</td>
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<tr>
<td>ACR 251</td>
<td>Cooling and Dehumidification Lab</td>
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<tr>
<td>ACR 260</td>
<td>Heating and Humidification</td>
<td>3</td>
</tr>
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<td>ACR 261</td>
<td>Heating and Humidification Lab</td>
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<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading for Machinist</td>
<td>3</td>
</tr>
<tr>
<td>BRX 230</td>
<td>Mechanical Blueprint Reading</td>
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<td><strong>Total Credits</strong></td>
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**Technical Electives List**:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading for Machinist</td>
<td>3</td>
</tr>
<tr>
<td>BRX 230</td>
<td>Mechanical Blueprint Reading</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>28-32</strong></td>
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**Total Credits 18**

**Total Credits 64-68**
ISX 100 Industrial Safety .................................................. 3
MCX 100 Electrical Motor Controls I .................................... 3
MCX 101 Electrical Motor Controls I Lab ................................ 2
MCX 110 Electrical Motor Controls II ................................... 3
MCX 111 Electrical Motor Controls II Lab ................................ 2
MCX 150 Motor Controls .................................................. 3
MCX 151 Motor Controls Lab .............................................. 2
MGX 220 Rotating Machinery .............................................. 3
MGX 221 Rotating Machinery Lab ........................................ 2
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 ............................................ 4
CMM 124 Applied Machining .............................................. 6
CMM 224 Advanced Industrial Machining ................................ 5
PLB 150 Plumbing, Introduction to the Trade .......................... 3
PHS 175 Applied Physics ................................................... 6
PHX 150 Introductory Physics ............................................. 3
PMX 100 Precision Measurement ......................................... 3
WLD 123 Shielded Metal Arc Welding Groove Welds with Backing Lab .............................................. 3
WLD 100 Oxy-Fuel Systems ................................................ 2
WLD 101 Oxy-Fuel Systems Lab .......................................... 2
WLD 151 Basic Welding A .................................................. 2
ITS 211 Manufacturing Processes ......................................... 3
MST 200 Advanced Hydraulic Systems .................................. 3
MST 201 Advanced Hydraulic Systems Lab ............................ 2
MST 204 Advanced Pneumatic Systems .................................. 3
MST 205 Advanced Pneumatic Systems Lab ............................ 2
IMT 100 Welding for Maintenance AND ............................... 3
IMT 101 Welding for Maintenance Lab OR ............................ (2)
WLD 120 Shielded Metal Arc Welding .................................. 2
WLD 121 Shielded Metal Arc Welding Fillet Lab OR .................... (3)
WLD 152 Basic Welding B .................................................. 5
IMT 115 Maintenance Machining I ...................................... 2
IMT 116 Maintenance Machining I Lab OR ............................ 5
CMM 110 Fundamentals of Machine Tools -A AND ................... (3)
CMM 112 Fundamentals of Machine Tools -B AND ................... (7)
CMM 114 Fundamentals of Machine Tools .............................. 7
CMM 122 Fundamentals of Machine Tools -B AND ................... (4)
IMT 150 Maintaining Industrial Equipment I .......................... 3
IMT 151 Maintaining Industrial Equipment I Lab ..................... 2
Total Credits 19-21

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 28-12

Total Credits 49-53

**If courses equaling 10 credits are taken, five (5) credits may be used as electives.

Certificates

Fluid Power Mechanic - 470303129
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, 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)
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 .................................. 2
WLD 121 Shielded Metal Arc Welding Fillet Lab OR .................... (3)
WLD 152 Basic Welding B .................................................. (5)
IMT 115 Maintenance Machining I ...................................... 2
IMT 116 Maintenance Machining I Lab OR ............................ 5
CMM 114 Fundamentals of Machine Tools AND ....................... 7
CMM 112 Fundamentals of Machine Tools -B AND ................... (4)
IMT 150 Maintaining Industrial Equipment I .......................... 3
IMT 151 Maintaining Industrial Equipment I Lab ..................... 2
Total Credits 19-21

Industrial Maintenance Machinists Mechanic - 470303119
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, 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 ........................... (2)
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 .................................. 2
WLD 121 Shielded Metal Arc Welding Fillet Lab OR .................... (3)
WLD 152 Basic Welding B .................................................. (5)
IMT 115 Maintenance Machining I ...................................... 2
IMT 116 Maintenance Machining I Lab OR ............................ 5
CMM 114 Fundamentals of Machine Tools AND ....................... 7
CMM 112 Fundamentals of Machine Tools -B AND ................... (4)
IMT 150 Maintaining Industrial Equipment I .......................... 3
IMT 151 Maintaining Industrial Equipment I Lab ..................... 2
Total Credits 19-21

Industrial Maintenance Electrical Mechanic - 470303159
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, 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 ............................................................. (5)
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 ........................ (2)
IMT 120 Industrial Maintenance Rotating Machinery AND .......... (3)
IMT 121 Industrial Maintenance Rotating Machinery Lab OR .......... (2)

Diploma

Industrial Maintenance Technician - 4703034049
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

Area 1 =
Written Communication, Oral Communications, or Heritage/Humanities .................................................. 3

Area 2 =
MAT 116 Technical Mathematics OR ................................... 3
MAT 126 Technical Algebra & Trigonometry ............................ (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 ........................... (2)
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 ............................................................. (5)
IMT 150 Maintaining Industrial Equipment I AND ................. 3
IMT 151 Maintaining Industrial Equipment I Lab ..................... 2
IMT 120 Industrial Maintenance Rotating Machinery AND .......... (3)
IMT 121 Industrial Maintenance Rotating Machinery Lab OR .......... (2)

Subtotal 30

Total Credits 8-10
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<td>CHE 145</td>
<td>Introductory General Chemistry Lab</td>
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<tr>
<td>GEN 276</td>
<td>Employment and Professional Skills</td>
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<td>IMT 140</td>
<td>Industrial Mechanics</td>
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<tr>
<td>IMT 141</td>
<td>Industrial Mechanics</td>
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<td>EET 264</td>
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<td>IMT 280</td>
<td>Advanced Programmable Logic Controllers AND</td>
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<td>IMT 281</td>
<td>Advanced Programmable Logic Controllers Lab OR</td>
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<td>Programmable Logic Controllers AND</td>
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<td>Industrial Maintenance Electrical Principles OR</td>
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<td>ELT 110</td>
<td>Circuits I</td>
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<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment Lab</td>
<td>2</td>
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</table>

**Total Credits: 12-15**

**Industrial Maintenance Mechanic Level I - 4703033139**

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

<table>
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<tr>
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<th>Course Title</th>
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<tr>
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<tr>
<td>FPX 101</td>
<td>Fluid Power Lab OR</td>
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<tr>
<td>ELT 265</td>
<td>Applied Fluid Power</td>
<td>(3)</td>
</tr>
<tr>
<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
<td>3</td>
</tr>
<tr>
<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles OR</td>
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</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>(5)</td>
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<tr>
<td>IMT 150</td>
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<td>IMT 151</td>
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<tr>
<td>IMT 115</td>
<td>Maintenance Machining I AND</td>
<td>3</td>
</tr>
<tr>
<td>CMM 114</td>
<td>Fundamentals of Machine Tools OR</td>
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</tr>
<tr>
<td>CMM 110</td>
<td>Fundamentals of Machine Tools A AND</td>
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<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tools B AND</td>
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**Total Credits: 22-26**

**Presswork and Die Maintenance Technician Level I – 4703033209**

(Shown at OW, SMC)

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<td>IMT 115</td>
<td>Maintenance Machining I AND</td>
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<td>IMT 116</td>
<td>Maintenance Machining I Lab OR</td>
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<td>Fundamentals of Machine Tools OR</td>
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<td>CMM 110</td>
<td>Fundamentals of Machine Tools A AND</td>
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<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
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<td>Welding for Maintenance Lab</td>
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<td>IMT 260</td>
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<td>FPX 101</td>
<td>Fluid Power Lab OR</td>
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<td>Industrial Maintenance Electrical Motor Controls I AND</td>
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**Total Credits: 34**

**Chemical Operator - 4703033179**

(Shown at MYC, WKC)

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<td>Introductory General Chemistry</td>
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<td>CHE 145</td>
<td>Introductory General Chemistry Lab</td>
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<td>GEN 276</td>
<td>Employment and Professional Skills</td>
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<td>IMT 140</td>
<td>Industrial Mechanics</td>
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<td>IMT 141</td>
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**Total Credits: 13-15**

**Industrial Maintenance Robotics Technician – 4703033239**

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>IMT 110</td>
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<tr>
<td>ELT 110</td>
<td>Circuits I</td>
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<tr>
<td>FPX 100</td>
<td>Fluid Power AND</td>
<td>3</td>
</tr>
<tr>
<td>FPX 101</td>
<td>Fluid Power Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>ELT 265</td>
<td>Applied Fluid Power</td>
<td>(3)</td>
</tr>
<tr>
<td>IMT 220</td>
<td>Industrial Maintenance Electrical Motor Controls I AND</td>
<td>3</td>
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<td>IMT 221</td>
<td>Industrial Maintenance Electrical Motor Control Lab</td>
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<tr>
<td>ELT 244</td>
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<td>IMT 120</td>
<td>Industrial Maintenance Rotating Machinery AND</td>
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<td>IMT 280</td>
<td>Advanced Programmable Logic Controllers AND</td>
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<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment I</td>
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<tr>
<td>IMT 200</td>
<td>Industrial Robotic and Robotic Maintenance</td>
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**Total Credits: 24-29**
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)*

<table>
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<tr>
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<td>GEN 140</td>
<td>Development of Leadership</td>
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<td>Natural Sciences</td>
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<td>Heritage/Humanities</td>
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**Technical Core (required for all tracks):**

- Digital Literacy ........................................... 0-3
- BAS 160 Introduction to Business .......................... 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
- HSM 100 Introduction to Homeland Security ................. 3
- HSM 110 Introduction to Emergency Management ............. 3

**Wheelhouse Management Track – 490399701**
*(Offered at WKC)*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<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>MRN 200</td>
<td>Shipboard Deck Operations</td>
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<tr>
<td>MRN 201</td>
<td>Rules of the Road</td>
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<tr>
<td>MRN 202</td>
<td>Piloting and Navigation</td>
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**Marine Engineering Track – 490399702**
*(Offered at WKC)*

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<tr>
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<th>Course Title</th>
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<tr>
<td>MRN 204</td>
<td>Marine Electrical Systems</td>
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<tr>
<td>MRN 206</td>
<td>Marine Diesel</td>
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<tr>
<td>MRN 212</td>
<td>Marine Fluid Systems</td>
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<td>MRN 214</td>
<td>Marine Refrigeration Systems</td>
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**Marine Logistics Operations Track – 490399703**
*(Offered at WKC)*

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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
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<tr>
<td>BAS 289</td>
<td>Operations Management</td>
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<tr>
<td>MRN 208</td>
<td>Inland River Systems</td>
<td>3</td>
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<tr>
<td>MRN 209</td>
<td>Applied Marine Operations</td>
<td>3</td>
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<tr>
<td>MRN 210</td>
<td>Intermodal Transportation</td>
<td>3</td>
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**Marine Culinary Services Track – 490399704**

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<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
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<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts</td>
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<tr>
<td>CUL 200</td>
<td>Sanitation and Safety</td>
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<tr>
<td>CUL 230</td>
<td>Basic Nutrition</td>
<td>3</td>
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<td>CUL 270</td>
<td>Human Relations Management</td>
<td>3</td>
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<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
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<td><strong>Track Subtotal</strong></td>
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**Certificates**

**Marine Technology Business – 4903993019**
*(Offered at WKC)*

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<td>BAS 160</td>
<td>Introduction to Business</td>
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<td>BAS 283</td>
<td>Principles of Management</td>
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<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
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<tr>
<td>MRN 208</td>
<td>Applied Marine Operations</td>
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<td>MRN 209</td>
<td>Intermodal Transportation</td>
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**Marine Industry - 4903993029**
*(Offered at WKC)*

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<tr>
<td>MRN 100</td>
<td>Introduction to Marine Technology</td>
<td>3</td>
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<tr>
<td>MRN 101</td>
<td>Anatomy of a Towboat</td>
<td>3</td>
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<tr>
<td>MRN 102</td>
<td>Basic Marine Safety</td>
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<tr>
<td>MRN 103</td>
<td>Applied Marine Weather</td>
<td>3</td>
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<tr>
<td>MRN 104</td>
<td>Marine Crew Wellness</td>
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<td>MRN 203</td>
<td>Environmental Protection Rules</td>
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**Marine Culinary - 4903993039**
*(Offered at WKC)*

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<td>Sanitation and Safety</td>
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<td>CUL 230</td>
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<td>CUL 280</td>
<td>Cost and Control</td>
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<td>MRN 208</td>
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<tr>
<td><strong>Total</strong></td>
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**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, SMC)

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)

Technical Electives*
6

Subtotal 42-45

Total Credits 48-51

Technical Electives:

MSY 251 Concrete Finishing
3

MSY 253 Masonry Floors and Steps
3

MSY 255 Glass Blocks and Tile
3

MSY 237 Stone
3

Electives (Optional):

MSY 291 Special Problems III
(1-3)

Electives:

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 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 299 Cooperative Education OR
3

MSY 298 Practicum
(3)

Total Credits 36

Electives (Optional):

MSY 291 Special Problems III
(1-3)

Construction Bricklayer - 4601013039
(Offered at BLC, BSC, JFC, MYC, SMC)

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 299 Cooperative Education OR
3

MSY 298 Practicum
(3)

Total Credits 27

Certificate

Mechatronic Systems Operating Technician:
Siemens International Mechatronic Systems

Certification Level I - 1500003179
(Offered at JFC, OWC, SKY, WKC)

MS 110 Mechatronic Systems Electrical Components
4

MS 120 Mechatronic Systems Mechanical Components
4

MS 130 Mechatronic Systems Hydraulic / Pneumatic Components
4

MS 150 Mechatronic Systems Programmable Controllers
4

Total Credits 16

Electives:

MS 160 Systems Troubleshooting I
2

MS 190 Systems Thinking
1

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 199 Cooperative Education OR
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

Total Credits 27

Bricklayer Helper - 4601013029
(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 215 Masonry Lab
3

MSY 291 Special Problems III
3

Total Credits 12

Construction Bricklayer - 4601013049
(Offered at BLC, BSC, JFC, MYC, SMC)

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

Total Credits 27

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.
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 Assisting 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.
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<th>Course Title</th>
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<td>MAI 120</td>
<td>Medical Assisting Laboratory Techniques I</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</td>
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<td>MIT 217</td>
<td>Medical Office Procedures</td>
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<td>MAI 200</td>
<td>Pathophysiology for the Medical Assistant</td>
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<td>MAI 220</td>
<td>Medical Assisting Laboratory Techniques II</td>
<td>3</td>
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<tr>
<td>MAI 230</td>
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<td>MAI 104</td>
<td>Introduction to Medical Insurance</td>
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<td>Medical Assisting Clinical Procedures II</td>
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<tr>
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<tr>
<td>MAI 270</td>
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**Subtotal**: 38

**Total Credits**: 61-66

### Elective List:

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<tr>
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<th>Course Title</th>
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<tr>
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<td>Medical Transcription</td>
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<td>MAI 299</td>
<td>Selected Topics: Medical Assisting: (Topic)</td>
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### Diploma: Medical Assisting - 5108014020

*(Offered at BLC, HEC, JFC, MYC, SEC, SMC)*

#### General Education:

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<td>Human Anatomy &amp; Physiology I AND</td>
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<td>Human Anatomy &amp; Physiology II</td>
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**Subtotal**: 7-11

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</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
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**Subtotal**: 5-8

**NOTE**: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

#### Core Courses:

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<td>Medical Assisting Laboratory Techniques I</td>
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<td>Medical Assisting Clinical Procedures I</td>
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<td>Medical Office Procedures</td>
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**Subtotal**: 38

**Total Credits**: 50-57

### Electives:

#### Elective Courses:

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<td>MAI 260</td>
<td>Medical Transcription</td>
<td>3</td>
</tr>
<tr>
<td>MAI 299</td>
<td>Selected Topics: Medical Assisting: (Topic)</td>
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### Certificates

**Medical Office Insurance Billing and Coding - 5108013049**

*(Offered at BLC, HEC, JFC, MYC, SEC, SMC)*

<table>
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<td>AHS 120</td>
<td>Medical Terminology OR</td>
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<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
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<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
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</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
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<td>AHS 120</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
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<tr>
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<td>MAI 150</td>
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<td>MAI 227</td>
<td>Medical Office Software</td>
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**Total Credits**: 18-24

### Medical Office Administrative Assistant - 5108013069

*(Offered at BLC, HEC, JFC, MYC, SEC, SMC)*

<table>
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<tr>
<td>BIO 137</td>
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<td>BIO 139</td>
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<td>AHS 120</td>
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<td>MIT 103</td>
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<tr>
<td>MAI 105</td>
<td>Introduction to Medical Assisting</td>
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<tr>
<td>MAI 150</td>
<td>Medical Assisting Administrative Procedures I</td>
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<td>MAI 227</td>
<td>Medical Office Software</td>
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**Total Credits**: 18-24

**Electrocardiograph Technician - 5108013149**

*(Offered at JFC, MYC)*

<table>
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<th>Course Title</th>
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<tbody>
<tr>
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<tr>
<td>AHS 120</td>
<td>Medical Terminology OR</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
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<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals OR</td>
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<tr>
<td>KHP 190</td>
<td>First Aid and Emergency Care</td>
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<tr>
<td>MAI 140</td>
<td>Medical Assisting Clinical Procedures I</td>
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<td>MAI 240</td>
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<tr>
<td>MAI 281</td>
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**Total Credits**: 11-18

**NOTE**: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.
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.
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 119 Applied Laboratory OR ............................................... (3)
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 BLC, HEC, HZC, JFC, MDC, SEC, SMC, WKC)

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 111 Urinalysis ...................................................................... 2
MLT 115 Serology ......................................................................... 2
Subtotal 8-9

Phlebotomist - 5110043019
(Offered at BLC, HZC, JFC, MYC)

PHB 100 Phlebotomy ..................................................................... 6
PHB 155 Phlebotomy Clinical ....................................................... 2-3
Total 8-9

Advanced Phlebotomy Technician - 5110043049
(Offered at HZC, SEC.)

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 151 Phlebotomy AND ......................................................... (1)
PHB 153 Advanced Topics in Phlebotomy AND ............................ (4)
PHB 155 Phlebotomy Clinical OR ............................................... (3)
PHB 170 Applied Phlebotomy AND ............................................. (3)
PHB 152 Phlebotomy Clinical Experience AND ............................ (1)
PHB 155 Phlebotomy Clinical ....................................................... (2)
Subtotal 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, HZC, MDC)

General Education:
ENG 101 Writing I ..................................................................... 3
Quantitative Reasoning course* ............................................... 3
Social/Behavioral Sciences course ............................................. 3
GLY 101 Physical Geology AND ................................................... 3s
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:
Digital Literacy ........................................................................... 3
MNG 160 Elements of Underground Mining ................................ 3
MNG 161 Elements of Underground Mining Lab .......................... 1-3
MNG 170 Elements of Surface Mining ......................................... 2
MNG 171 Elements of Surface Mining Lab .................................... 1-3
MNG 150 Mining Laws ............................................................... 3
BAS 160 Introduction to Business ............................................... 3
EFM 100 Personal Financial Management OR ........................... 3
BAS 120 Personal Finance ........................................................ 3
MNG 274 Mine Safety .................................................................. 3
MNG 180 Environmental Issues in Mining .................................. 3
Subtotal 25-29
## Operators Track – 150901702

(Offered at BSC, MDC)

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<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment I Lab</td>
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**Subtotal** 19-21

**Total Credits** 60-66

## Electricians Track - 150901703

(Offered at BSC, HZC, MDC)

<table>
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<tbody>
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<td>Mining Electricity I AND</td>
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<td>MNG 125</td>
<td>Mining Electricity I Lab OR</td>
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<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
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<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles Lab</td>
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<td>ELT 244</td>
<td>Electrical Machinery and Controls OR</td>
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<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment I</td>
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<td>IMT 151</td>
<td>Maintaining Industrial Equipment I Lab</td>
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<td>ELT 250</td>
<td>Programmable Logic Controllers</td>
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<td><strong>Technical Electives</strong>*</td>
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**Subtotal** 20

**Total Credits** 61-65

## Supervisors Track - 150901704

(Offered at BSC, MDC)

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<td>Fundamentals of Accounting I</td>
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<tr>
<td>MNG 286</td>
<td>Roof Control and Ventilation</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
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<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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**Subtotal** 20

**Total Credits** 61-65

## Mechanics Track - 150901705

(Offered at BSC, HZC, MDC)

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<td>Applied Fluid Power OR</td>
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<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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<td>ELT 122</td>
<td>Mechanical Power Transmission Systems</td>
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<td>Welding for Maintenance</td>
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<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
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<td>IMT 150</td>
<td>Maintaining Industrial Equipment I</td>
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<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment I Lab</td>
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**Subtotal** 20-23

**Total Credits** 61-68

## Engineering Operations Track - 150901701

(Offered at BSC, MDC)

<table>
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<tr>
<td>MAT 155</td>
<td>Trigonometry</td>
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<tr>
<td>ELT 264</td>
<td>Mechanical Design OR equivalent course</td>
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**Subtotal** 20-22

**Total Credits** 61-67

*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

**Subtotal** 6

**Technical Courses:**

- Blueprint Reading Course
- Digital Literacy course or demonstrated competency
- Personal Financial Management OR
- Medical Assistant OR
- Personal Finance
- Welding for Maintenance
- Welding for Maintenance Lab
- Maintenance Operating Principles
- Mine Emergency Technician OR
- First Aid & Emergency Care
- Permissibility
- Mine Safety
- **Technical Electives***

**Subtotal** 44-54

**Total Credits** 50-60

*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.

## Certificates

### Underground Operator 1509013129

(Offered at BSC, MDC, SEC)

<table>
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<td>Elements of Underground Mining</td>
</tr>
<tr>
<td>MNG 161</td>
<td>Elements of Underground Mining Lab</td>
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<td>EFM 100</td>
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### Underground Mechanic/Electrician 1509013069

(Offered at BSC, HZC, MDC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MNG 123</td>
<td>Mining Electricity I</td>
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<tr>
<td>MNG 125</td>
<td>Mining Electricity I Lab OR</td>
</tr>
<tr>
<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
</tr>
<tr>
<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles Lab</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
</tr>
<tr>
<td>ELT 244</td>
<td>Electrical Machinery and Controls OR</td>
</tr>
<tr>
<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
</tr>
<tr>
<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles Lab</td>
</tr>
<tr>
<td>ELT 265</td>
<td>Applied Fluid Power OR</td>
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Academic Curricula

**Underground Supervisor - 1509013079**
*(Offered at BSC, HZC, MDC, SEC)*

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<td>MNG 190</td>
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<td>KHP 190</td>
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<td>MNG 286</td>
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<td>Blueprint Reading course</td>
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**Surface Operator - 1509013139**
*(Offered at BSC, MDC, SEC)*

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<td>HEO 125</td>
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**Surface Supervisor - 1509013099**
*(Offered at BSC, MDC, SEC)*

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<tr>
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<td>Blueprint Reading Course</td>
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</tr>
<tr>
<td>MNG 150</td>
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**Surface Field Mechanic - 1509013109**
*(Offered at BSC, SEC)*

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<tr>
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<td>(3)</td>
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<td>FPX 101</td>
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**Surface Technician/Greaser - 1509013119**
*(Offered at BSC, SEC)*

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**Mining Technician Assistant I - 1509013019**
*(Offered at BSC, SEC)*

<table>
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<tbody>
<tr>
<td>PMX 100</td>
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<td>DIT 103</td>
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**Mining Technician Assistant II - 1509013029**
*(Offered at BSC, HZC, SEC)*

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<td>FPX 100</td>
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<td>FPX 101</td>
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**Mining Technician I - 1509013039**
*(Offered at BSC, SEC)*

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>MNG 161</td>
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<td>MNG 150</td>
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<tr>
<td>MNG 286</td>
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<tr>
<td>Computer/Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>Elements of Underground Mining</td>
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<tr>
<td>Mining Laws</td>
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<td>Roof Control and Ventilation</td>
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**Mining Technician II - 1509013049**
*(Offered at BSC, SEC)*

<table>
<thead>
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<tbody>
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<td>MNG 125</td>
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<td>MNG 286</td>
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<td>MNG 190</td>
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<td>KHP 190</td>
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<td>Computer/Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>Mining Electricity I</td>
<td>4</td>
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<td>Mining Electricity Lab</td>
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<td>Mining Laws</td>
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</table>

**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**

**Motorcycle Technology - 4706117019**
*(Offered at BSC)*

**General Education**

<table>
<thead>
<tr>
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<td>MAT 110</td>
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<tr>
<td>Social/Behavioral Sciences</td>
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<td>Oral Communications</td>
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**Technical Core**

<table>
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<tbody>
<tr>
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<td>OST 105</td>
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<td>MOT 120</td>
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<td>MOT 130</td>
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<td>MOT 134</td>
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<td>MOT 244</td>
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**Repair Track - 470611701**
*(Offered at BSC)*

<table>
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<tbody>
<tr>
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<tr>
<td>MOT 142</td>
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<td>MOT 156</td>
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<td>MOT 200</td>
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**Technical Courses**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MOT 220</td>
<td>Diagnostics and Troubleshooting</td>
<td>2</td>
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<tr>
<td>MOT 234</td>
<td>Performance Machine and Welding</td>
<td>2</td>
</tr>
</tbody>
</table>

**Approved Technical Electives**

1. Shop Management 
2. Service Requirements 
3. Basic Engines and Drive Systems 
4. Advanced Engines and Drive Systems 
5. Frames and Suspensions 
6. Diagnostics and Troubleshooting 
7. Performance Machining and Welding 

**Subtotal**

22

**Total Credits (Repair Track)**

62-65

**Retail Track - 470611702**

(Offered at BSC)

<table>
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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td>3</td>
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<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
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**Approved Technical Electives**

15

**Subtotal**

21

**Total Credits (Retail Track)**

61-64

**Certificates**

**Repair Technician II - 4706113029**

(Offered at BSC)

**Technical Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</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>
<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>
</tr>
<tr>
<td>MOT 142</td>
<td>Basic Engines and Drive Systems</td>
<td>2</td>
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<tr>
<td>MOT 200</td>
<td>Advanced Engines and Drive Systems</td>
<td>2</td>
</tr>
<tr>
<td>MOT 220</td>
<td>Diagnostics and Troubleshooting</td>
<td>2</td>
</tr>
<tr>
<td>MOT 234</td>
<td>Performance Machining and Welding</td>
<td>2</td>
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<tr>
<td>MOT 244</td>
<td>Parts and Management</td>
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**Total**

25

**Repair Technician I - 4706113019**

(Offered at BSC)

**Technical Courses**

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
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<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>
<tr>
<td>MOT 142</td>
<td>Basic Engines and Drive Systems</td>
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**Total**

15

**Retail Technician II - 4706113049**

(Offered at BSC)

**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>
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</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
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<tr>
<td>MOT 120</td>
<td>Motorcycle Sales and Marketing</td>
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<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
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**Approved Technical Electives**

12

**Total**

29

**Retail Technician I - 4706113039**

(Offered at BSC)

**Technical Courses**

<table>
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<tbody>
<tr>
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<td>Introduction to Motorcycles</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>
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<td>BAS 200</td>
<td>Small Business Management</td>
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**Approved Technical Electives**

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**Total**

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**Approved Technical Electives Repair Track:**

<table>
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<tr>
<td>CIS 130</td>
<td>Microcomputer Application</td>
<td>3</td>
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<td>CRT 100</td>
<td>Introduction to Collision Repair</td>
<td>2</td>
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<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>
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<tbody>
<tr>
<td>CIS 130</td>
<td>Microcomputer Application</td>
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<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>
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<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
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<td>BAS 283</td>
<td>Principles of Management</td>
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<td>BAS 291</td>
<td>Retail Management</td>
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</table>

**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**

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
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<td>Multi-Skilled Systems Technician</td>
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</table>

**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.

**Leakage and Corrosion Control 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.

**Gas Service 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 protec-
tion 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 five 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

(Offered at WKC)

<table>
<thead>
<tr>
<th>NGT</th>
<th>Technologies Basic to the Delivery of Natural Fuel Gases</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>NGT</td>
<td>Preventing/Controlling Worksite Incidents</td>
<td>3</td>
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<tr>
<td>NGT</td>
<td>Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192</td>
<td>1</td>
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<tr>
<td>NGT</td>
<td>Pipeline Construction Safety</td>
<td>3</td>
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<tr>
<td>NGT</td>
<td>Performing Patrol &amp; Leakage Surveys on Natural Gas Pipeline Facilities</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Identifying Practices &amp; Procedures Used to Control and Monitor Cathodic Protection Systems</td>
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<tr>
<td>NGT</td>
<td>Troubleshooting Cathodic Protection Rectifiers</td>
<td>3</td>
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Gas Service Technician - 1509033040

(Offered at WKC)

<table>
<thead>
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<tbody>
<tr>
<td>NGT</td>
<td>Preventing/Controlling Worksite Incidents</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Maintaining Compliance with the National Fuel Gas Code NFPA 54 and ANSI Z233.1</td>
<td>1</td>
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<tr>
<td>NGT</td>
<td>Installing &amp; Maintaining Customer Service Lines and Meter and Regulator Sets</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Installing Gas Operated Equipment</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Installing and Inspecting Gas Distribution Piping</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Placing Gas Pipelines into Service</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Identifying Practices &amp; Procedures Used to Control and Monitor Cathodic Protection Systems</td>
<td>2</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

Measurement and Regulation Technician - 1509033030

(Offered at WKC)

<table>
<thead>
<tr>
<th>NGT</th>
<th>Technologies Basic to the Delivery of Natural Fuel Gases</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGT</td>
<td>Preventing/Controlling Worksite Incidents</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192</td>
<td>1</td>
</tr>
<tr>
<td>NGT</td>
<td>Pipeline Construction Safety</td>
<td>3</td>
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<tr>
<td>NGT</td>
<td>Performing Patrol &amp; Leakage Surveys on Natural Gas Pipeline Facilities</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Identifying Practices &amp; Procedures Used to Control and Monitor Cathodic Protection Systems</td>
<td>2</td>
</tr>
<tr>
<td>NGT</td>
<td>Identifying Principles &amp; Performing Operations Basic to Gas Measurement</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Inspecting &amp; Maintaining Gas Metering Systems</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Operating &amp; Maintaining Gas Pressure/Regulating Systems</td>
<td>3</td>
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<tr>
<td>Total Credits</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

Construction and Maintenance Technician - 1509033010

(Offered at WKC)

<table>
<thead>
<tr>
<th>NGT</th>
<th>Technologies Basic to the Delivery of Natural Fuel Gases</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGT</td>
<td>Preventing/Controlling Worksite Incidents</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192</td>
<td>1</td>
</tr>
<tr>
<td>NGT</td>
<td>Pipeline Construction Safety</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Installing &amp; Inspecting Gas Distribution Piping</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Performing Maintenance on Gas Pipelines</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Placing Gas Pipelines into Service</td>
<td>3</td>
</tr>
<tr>
<td>NGT</td>
<td>Identifying Practices &amp; Procedures Used to Control and Monitor Cathodic Protection Systems</td>
<td>2</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

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, JFC)

General Education:

<table>
<thead>
<tr>
<th>ENG 101</th>
<th>Writing I</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MA 109</td>
<td>College Algebra</td>
<td>(3)</td>
</tr>
<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHE 150</td>
<td>Introduction to Organic and Biological Chemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

Academic Curricula

185
Transportation to the community agencies is the responsibility of each student.

Computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course. Documentation of successful completion of a minimum 75-hour CPR requirements must be successfully completed prior to enrolling in the first nursing course.

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 and documentation of computer/digital literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Subtotal 35-37

Technical Courses:
NMI 140 Clinical Procedures I .................................................2
NMI 141 Physics and Instrumentation I ...................................... 2
NMI 142 Radiation Biology/Protection ...................................... 2
NMI 150 Clinic I ...........  2
NMI 160 Clinical Procedures II .............................................. 2
NMI 161 Physics and Instrumentation II ................................... 2
NMI 170 Clinic II ............................................................... 2
NMI 230 Radiopharmacy .......................................................... 2
NMI 220 Clinic III ............................................................... 2
NMI 240 Clinical Procedures III .............................................. 4
NMI 260 Clinic IV ............................................................... 4
NMI 250 Clinical Procedures IV ............................................ 4
NMI 270 Clinic V ............................................................... 4
IMG 230 Sectional Anatomy for Advanced Imaging ................... 3
Subtotal 36

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).

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, Inc., 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326, www.nlnac.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, Somerset Community College, West Kentucky Community and Technical College. Note: Hours exemption (69-72 for the AAS) approved by the KCTCS Board of Regents in June 2010.
Nursing Standard Pathway - 513801705
(Offered at JFC)

Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSG 106</td>
<td><strong>Nursing One</strong></td>
<td>9</td>
</tr>
<tr>
<td>NSG 206</td>
<td><strong>Nursing Two OR</strong></td>
<td>9</td>
</tr>
<tr>
<td>NSG 196</td>
<td><strong>Nursing LPN Bridge</strong></td>
<td>(5)</td>
</tr>
<tr>
<td>NSG 236</td>
<td>(Family Nursing) Nursing Three</td>
<td>9</td>
</tr>
<tr>
<td>NSG 246</td>
<td>Nursing Four</td>
<td>9</td>
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<tr>
<td>NSG 216</td>
<td>Nursing Pharmacology I</td>
<td>1</td>
</tr>
<tr>
<td>NSG 226</td>
<td>Nursing Pharmacology II</td>
<td>1</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>38</strong></td>
</tr>
</tbody>
</table>

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 an equivalent, a letter of good standing status from the Kentucky Nurse Aide Registry, criminal background checks and documentation of computer/digital literacy as defined by KCTCS are required prior to enrolling in the first nursing course.

Nursing Assistant – Advanced

Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings.

Certificate

Advanced Nursing Assistant - 5139023019
(Offered at ELC, HPC, MYC, OW, WKC)
Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAA 125</td>
<td>Advanced Nursing Assistant OR</td>
<td>6</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I AND</td>
<td>(3)</td>
</tr>
<tr>
<td>NAA 115</td>
<td>Nursing Assistant Skills II OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide AND</td>
<td>(3)</td>
</tr>
<tr>
<td>NAA 115</td>
<td>Nursing Assistant Skills II</td>
<td>(3)</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology OR</td>
<td>4</td>
</tr>
<tr>
<td>AHS 109</td>
<td>Introduction to Body Structure and Function OR</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology IAND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</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 OR</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
<td>(3)</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Computer/Digital Literacy</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<td>16-20</td>
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</tbody>
</table>

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 through 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 or have practiced 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 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.

The following Practical Nursing Program is accredited by the Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326 www.nlnac.org Telephone: (404) 975-5000.

Southeast Kentucky Community and Technical College

The following Associate Degree Nursing Program is accredited by the Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326 www.nlnac.org Telephone: (404) 975-5000.

Southeast Kentucky Community and Technical College

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 SEC, SKY)

<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 I</td>
<td>4</td>
</tr>
<tr>
<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>PSY 110</td>
<td>*General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 223</td>
<td>*Developmental Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

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under the guidance of program faculty, students gain instruction in theory and basic nursing skills in various domains. These 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.

The Practical Nursing 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. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, and 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 semester of nursing courses based upon specific college offerings, work experience, and active licensure status.

Students select their career preference upon admission to the program, but may choose to change their career path while in the program without reapplying for admission. Requests for career path changes will require submission of an application for tract change to the nursing admissions committee.

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 the Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326, www.nlac.org. Telephone (404) 975-5000.

Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2010.
Academic Curricula

Associate in Applied Science
Nursing - 5138017069
(Offered at HZC, 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
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 205 Pathophysiology for Nursing Practice ..................... 4
NIP 210 Advanced Nursing Practice .................................... 8
NIP 215 Leadership and Specialty Practice ............... 7
Subtotal 22
Total Credits 47-50

Technical or Support Courses:
CIT 105 Introduction to Computers OR
OST 105 Introduction to Information Systems OR
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 140 Practical Nursing Role Transition ....................... 6
Subtotal 22
Total Credits 47-50

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.

Diploma
Practical Nursing - 5139014049
(Offered at HZC, 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
Subtotal 13

Technical or Support Courses:
CIT 105 Introduction to Computers OR
OST 105 Introduction to Information Systems OR
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 140 Practical Nursing Role Transition ....................... 6
Subtotal 22
Total Credits 47-50

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.

Diploma
Practical Nurse - 5139014039
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, JFC, MYC, SKY, SMC, WKC)

Practical Nurse Pathway 1 - Traditional - 513901401
(Offers at BLC, ELC, JFC, SKY, SMC)

General Education:
Area 1 =
TEC 200 Technical Communications OR ......................... 3
ENG 101 Writing I OR ......................................................... 3
COM 181 Basic Public Speaking OR ......................... 3
COM 252 Introduction to Interpersonal Communication .......... 3
Area 2 =
BIO 135 Basic Anatomy & Physiology with Laboratory OR .......... 4

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 ............................. (6)
Total Credits 3-6

NOTE: Madisonville Community College does not offer NAA 125.

Kentucky Medication Aide - 5139012030
NOTE: After the student completes the second semester of the Integrated Nursing program, the student is eligible to sit for the KMA exam.

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 previous 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, ELC, HEC, HPC, JFC, MYC, SKY, SMC, WKC)

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BIO 137 Human Anatomy & Physiology I AND .............................................(4)
BIO 139 Human Anatomy & Physiology II ..................................................(4)
Subtotal 7-11

Technical Core:
AHS 100 Human Growth & Development OR ...........................................2
PSY 110 General Psychology AND ..........................................................(3)
PSY 223 Developmental Psychology .......................................................(3)
NPN 100 Introduction to Nursing & Health Care System AND .....................2
NPN 105 Development of Care Giver Role AND .........................................6
NPN 110 Pharmacology I OR .................................................................2
NPN 115 *Practical Nursing Bridge Course ..................................................(6)
NPN 125 Mental Health .............................................................................3
NPN 130 Pharmacology II .........................................................................6
NPN 135 Introduction to Health Deviations .................................................6
NPN 200 Med Surg I ..................................................................................5
NPN 201 Child Bearing Family ..................................................................3
NPN 205 Med Surg II ................................................................................5
NPN 210 Clinical Practicum .......................................................................4
NPN 215 Nursing Trends & Issues ...............................................................1
Subtotal 38-46
Total Credits: 45-57

*Taken by advanced nursing assistant and allied health graduates.

Practical Nurse – Pathway 2 – Traditional Modified - 513901402
(Offered at ASC, BSC, HEC, HPC, MYC,WKC)

General Education:

Area 1 =
TEC 200 Technical Communications OR .....................................................3
ENG 101 Writing I OR ...............................................................................(3)
COM 181 Basic Public Speaking OR ..........................................................(3)
COM 252 Introduction to Interpersonal Communication ................................(3)

Area 2 =
BIO 135 Basic Anatomy & Physiology with Laboratory OR .......................4
BIO 137 Human Anatomy & Physiology I AND .........................................(4)
BIO 139 Human Anatomy & Physiology II ..................................................(4)
Subtotal 7-11

Technical Core:
AHS 100 Human Growth & Development OR ...........................................2
PSY 110 General Psychology AND ..........................................................(3)
PSY 223 Developmental Psychology .......................................................(3)
AHS 120 Medical Terminology OR ............................................................1
AHS 115 Medical Terminology OR ............................................................3
CLA 131 Medical Terminology from Greek and Latin ................................(3)
MIT 103 Medical Office Terminology ........................................................3
NPN 101 Nursing Fundamentals AND ......................................................6
NPN 111 Pharmacology OR ......................................................................3
NPN 115 *Practical Nursing Bridge Course .................................................(6)
NPN 125 Mental Health .............................................................................3
NPN 135 Introduction to Health Deviations .................................................6
NPN 201 Child Bearing Family ..................................................................3
NPN 202 Med Surg I Alterations .................................................................6
NPN 206 Med Surg II Alterations ...............................................................6
NPN 210 Clinical Practicum .......................................................................4
NPN 215 Nursing Trends & Issues ...............................................................1
Subtotal 38-47
Total Credits: 45-58

Recommended Electives:
FHM 100 Dosage Calculations ....................................................................(2)
MAT 110 Applied Math ...............................................................................(3)
AHS 105 Introductions to Health Occupations .........................................(3)
AHS 130 Infection Control .........................................................................(2)
NSG 299 Selected Topics in Nursing: (Topic) .............................................(1-4)

*Taken by advanced nursing assistant and allied health graduates.

Practical Nurse – Pathway 3 – Modular - 513901403

General Education:

Area 1 =
ENG 101 Writing I ......................................................................................3

Area 2 =
BIO 137 Human Anatomy & Physiology I ................................................4
BIO 139 Human Anatomy & Physiology II ................................................4
MAT 110 Applied Mathematics ...................................................................3
PSY 110 General Psychology .....................................................................3
Subtotal 17

Technical Core:
PSY 223 Developmental Psychology ..........................................................3
AHS 115 Medical Terminology OR ............................................................3
CLA 131 Medical Terminology from Greek and Latin ................................(3)
NPN 106 Fundamentals of Nursing Care ....................................................6
NPN 108 Pharmacology in Nursing ............................................................3
NPN 125 Mental Health .............................................................................3
NPN 140 Nursing Care I .............................................................................3
NPN 201 Child Bearing Family ..................................................................3
NPN 208 Nursing Care II ...........................................................................10
NPN 210 Clinical Practicum .......................................................................4
NPN 215 Nursing Trends & Issues ...............................................................1
Subtotal 39

Total Credits: 56

Certificates

Medicaid Nurse Aide - 5139012020
(Granted Completely Online)

MNA 100 Medicaid Nurse Aide OR ..............................................................3
NAA 100 Nursing Assistant Skills I OR .........................................................(3)
NAA 125 Advanced Nursing Assistant ........................................................6
Total Credits 3-6

Kentucky Medication Aide - 5139012030
(Granted Completely Online)

KMA 100 Kentucky Medication Aide ............................................................5
Total Credits 5

Occupational Therapy Assistant

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 admissions 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 fieldwork sites.

Students will be responsible for their own transportation for fieldwork.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first OTA course.

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). 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 NBCOT certification exam. The student is responsible for contacting NBCOT prior to admission.

### Associate in Applied Science

**Occupational Therapy Assistant - 5108037009**

(Offered at JFC, MDC)

<table>
<thead>
<tr>
<th>General Education Core:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 Writing I ...........</td>
</tr>
<tr>
<td>PSY 110 General Psychology</td>
</tr>
<tr>
<td>PSY 223 Developmental Psychology</td>
</tr>
<tr>
<td>COM 181 Basic Public Speaking OR</td>
</tr>
<tr>
<td>COM 252 Introduction to Interpersonal Communication (3)</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

### Pathway # 1 - 510803701

(Offered at MDC)

**Additional General Education (MCC Only):**

| BIO 135 Basic Anatomy and Physiology with Laboratory** | 4 |
| MAT 150 College Algebra | 3 |

****(BIO 137 & BIO 139) will be accepted as equivalent for BIO 135 required course.

### Additional Technical Support Course (MCC Only):**

| AHS 120 Medical Terminology | 1 |

**Total Additional Technical Credits** 10

### Technical Core:

| OTA 101 Introduction to Occupational Therapy | 3 |
| OTA 126 Level IA Fieldwork | 1 |
| OTA 146 Occupational Therapy in Mental Health | 3 |
| OTA 136 Physical Dysfunction | 4 |
| OTA 226 Level IB Fieldwork | 1 |
| OTA 246 Pediatric Issues in Occupation Therapy | 3 |
| OTA 256 Elder Issues in Occupation Therapy | 2 |
| OTA 206 Community Practice | 2 |
| OTA 236 Professional Transitions and Management | 2 |
| OTA 267 Level III Fieldwork | 5 |
| OTA 277 Level IV Fieldwork | 5 |
| Total | 31 |

### Alternate Pathway #1 for MCC/Total Credits 64

### Pathway #2 - 510803702

(Offered at JFC)

**General Education Core:**

| ENG 101 Writing I .................. | 3 |
| PSY 110 General Psychology | 3 |
| PSY 223 Developmental Psychology | 3 |
| COM 181 Basic Public Speaking OR | 3 |
| COM 252 Introduction to Interpersonal Communication (3) | 3 |
| Total | 15 |

### Additional General Education (JCTC Only):**

| BIO 137 Human Anatomy and Physiology I | 4 |
| BIO 139 Human Anatomy and Physiology II | 4 |
| MAT 110 Applied Mathematics OR | 3 |
| MAT 150 College Algebra | 3 |
| SOC 101 Introduction to Sociology | 3 |
| ENG 102 Writing II | 3 |
| Total | 17 |

### Technical Core:

| OTA 101 Introduction to Occupational Therapy | 3 |
| OTA 126 Level IA Fieldwork | 1 |
| OTA 146 Occupational Therapy in Mental Health | 3 |
| OTA 136 Physical Dysfunction | 4 |
| OTA 226 Level IB Fieldwork | 1 |
| OTA 246 Pediatric Issues in Occupation Therapy | 3 |
| OTA 256 Elder Issues in Occupation Therapy | 2 |
| OTA 206 Community Practice | 2 |
| OTA 236 Professional Transitions and Management | 2 |
| OTA 267 Level III Fieldwork | 5 |
| OTA 277 Level IV Fieldwork | 5 |
| Total | 31 |

### Additional Technical Courses (JCTC only):

| OTA 116 Media Principles & Procedures I | 2 |
| OTA 216 Media Principles & Procedures II | 2 |

### Recommended Additional Technical Courses (JFC only):

| OTA 286 Clinical Seminar | 2 |

**Total Additional Technical Credit** 4

### Alternate Pathway for JCTC/Total Credits 67
Paralegal Technology

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.

Associate in Applied Science

Paralegal Technology – 2203023019
(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>Qntf</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>POL 101</td>
<td>American Government</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>**Subtotal</td>
<td>21</td>
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</tr>
</tbody>
</table>

Technical Support Courses:

- Computer/Digital Literacy Course ............................... 3
- Criminal Justice Elective Course** ............................... 3
- **Subtotal 9

Technical Courses:

- Legal Systems and Terminology ....................................3
- Legal Research ...............................................................3
- Family Law ........................................................................3
- Legal Writing .................................................................3
- Wills and Estates ...........................................................3
- Civil Litigation I .........................................................3
- Civil Litigation II .........................................................3
- Real Property I .............................................................3
- Real Property II .............................................................3
- Torts ..............................................................................3
- **Subtotal 36

- **Total 66

* PSY 110 (General Psychology) OR SOC 101 (Introduction to Sociology) recommended.
** CRJ 100 (Introduction to Criminal Justice) OR CRJ 216 (Criminal Law) recommended.

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).

Certificate

Paralegal Technology – 2203023019
(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Computer/Digital Literacy Course</td>
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</tr>
<tr>
<td>PGL 111</td>
<td>Legal Systems and Terminology</td>
<td>3</td>
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<tr>
<td>PGL 112</td>
<td>Legal Research</td>
<td>3</td>
</tr>
<tr>
<td>PGL 211</td>
<td>Family Law</td>
<td>3</td>
</tr>
<tr>
<td>PGL 212</td>
<td>Legal Writing</td>
<td>3</td>
</tr>
<tr>
<td>PGL 221</td>
<td>Wills and Estates</td>
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<td>PGL 231</td>
<td>Real Property I</td>
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<td>Ethics</td>
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<tr>
<td>**Subtotal</td>
<td>36</td>
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</tbody>
</table>

- **Total Credits 34-49

Pharmacy Technology – 5108054029
(Offered at ASC, JFC, SMC)

General Education:

Area 1 =
- COM 181 Basic Public Speaking .......... 3
- COM 252 Introduction to Interpersonal Communication .......... (3)

Area 2 =
- BIO 130 Aspects of Human Biology OR .......... 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)
- **Subtotal 6-11

** Area 2 includes the following courses:
- Digital Literacy ......................................................... 0-3
- Personal Financial Management OR .......................... 3
- Personal Finance OR ..................................................... (3)
- Workplace Principles .................................................. (3)
- Medical Terminology OR .............................................. (3)
- Medical Terminology from Greek and Latin OR ............... (3)
- Medical Office Terminology ......................................... (3)
- Pharmacy Procedures and Skills ......................... 6
- Pharmaceutical Calculations ............................... 2
- Pharmacology ................................................................. 2
- Admixtures for IV Therapy ............................................. 3
- Admixture Preparations ................................................ 1
- Drug Classifications ..................................................... 6
- Pharmacy Experience ..................................................... 1-8
- **Subtotal 28-38

**Total Credits 34-49
### Additional Suggested Courses (Not Required):
- AHS 100 – Human Growth and Development (2)
- AHS 130 – Infection Control (2)
- AHS 201 – Management Principles for Allied Health Providers (3)
- AHS 203 – Diversity in Health Care (3)
- BAS 160 – Introduction to Business (3)
- KHP 190 – First Aid and Emergency Care (2)

### Certificates

#### Pharmacy Technician I - 5108053029

(Offered at ASC, HPC, JFC, OWC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</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 Communication OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 101</td>
<td>Introduction to Communications*</td>
<td>3</td>
</tr>
<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>PHA 110</td>
<td>Pharmacy Procedures and Skills</td>
<td>6</td>
</tr>
<tr>
<td>PHA 125</td>
<td>Pharmaceutical Calculations</td>
<td>2</td>
</tr>
<tr>
<td>PHA 136</td>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>PHA 104</td>
<td>Parenterals**</td>
<td>2</td>
</tr>
<tr>
<td>PHA 250</td>
<td>Pharmacy Experience</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Digital Literacy</td>
<td>0-3</td>
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</tbody>
</table>

**Total Credits:** 21-24

#### Retail Pharmacy Technician - 5108053039

(Offered at ASC, GTW, HPC, JFC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</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 Communication OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 101</td>
<td>Introduction to Communications*</td>
<td>3</td>
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<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>PHA 110</td>
<td>Pharmacy Procedures and Skills</td>
<td>6</td>
</tr>
<tr>
<td>PHA 125</td>
<td>Pharmaceutical Calculations</td>
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<tr>
<td>PHA 136</td>
<td>Pharmacology</td>
<td>3</td>
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<tr>
<td></td>
<td>Digital Literacy</td>
<td>0-3</td>
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</table>

**Total Credits:** 17-20

*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.

---

### Associate in Applied Science

#### Physical Therapist Assistant - 5108067049

(Offered at HZC, JFC, MDC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Pathway 1 - 510806703</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Education:</strong></td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
</tr>
<tr>
<td>BIO 137 Human Anatomy and Physiology I</td>
</tr>
<tr>
<td>BIO 139 Human Anatomy and Physiology II</td>
</tr>
<tr>
<td>MAT 150 College Algebra</td>
</tr>
</tbody>
</table>
| *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.

#### Technical Courses:

<table>
<thead>
<tr>
<th>Digital Literacy</th>
<th>0-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA 1501 Functional Anatomy &amp; Kinesiology Lab</td>
<td>3</td>
</tr>
<tr>
<td>PTA 1502 Functional Anatomy &amp; Kinesiology Lecture</td>
<td>3</td>
</tr>
<tr>
<td>PTA 120 Basic Skills for the PTA</td>
<td>2</td>
</tr>
<tr>
<td>PTA 121 Basic Skills for the PTA Lab</td>
<td>2</td>
</tr>
<tr>
<td>PTA 170 Clinical Practicum I</td>
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</table>

**Total Credits (Pathway 1):** 65-68

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### Pathway 2 - 510806704

(Offered at MDC)

<table>
<thead>
<tr>
<th><strong>General Education:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 Writing I</td>
</tr>
<tr>
<td>BIO 137 Human Anatomy and Physiology I</td>
</tr>
<tr>
<td>BIO 139 Human Anatomy and Physiology II</td>
</tr>
<tr>
<td>MAT 150 College Algebra</td>
</tr>
<tr>
<td>COM 181 Basic Public Speaking</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th><strong>Technical Support Courses:</strong></th>
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</thead>
<tbody>
<tr>
<td>AHS 105 Introduction to Allied Health Occupations</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Subtotal:</strong></th>
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</thead>
<tbody>
<tr>
<td>26</td>
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### Technical Courses:

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<tr>
<th>Digital Literacy</th>
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<tbody>
<tr>
<td>PTA 1501 Functional Anatomy &amp; Kinesiology Lab</td>
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</tr>
<tr>
<td>PTA 1502 Functional Anatomy &amp; Kinesiology Lecture</td>
<td>3</td>
</tr>
<tr>
<td>PTA 120 Basic Skills for the PTA</td>
<td>2</td>
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<tr>
<td>PTA 121 Basic Skills for the PTA Lab</td>
<td>2</td>
</tr>
<tr>
<td>PTA 170 Clinical Practicum I</td>
<td>1</td>
</tr>
</tbody>
</table>
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. Progression in the Plumbing technology program is contingent upon achievement of a grade of "C" or better in each PLB and BRX course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Plumbing Technology - 4605037019
(Offered at ELC)

General Education:

ENG 101 Writing 1 .......................................................3
Quantitative Reasoning .................................................3
Social/Behavioral Sciences ...........................................3
Heritage/Humanities ..................................................3
Natural Sciences ..........................................................3
Oral Communications ..................................................3

Subtotal 18

Technical Courses:

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
PLB 261 Advanced Plumbing Lab OR .................................2
PLB 265 Valve & Faucet Repairs AND .................................2
PLB 267 Water Heater Service & Replacement AND .............2
PLB 269 Sewer & Drain Cleaning .......................................2
PLB 262 Back Flow Prevention .........................................3
PLB 270 License Preparation for Journeymen Exam .................3
PLB 298 Plumbing Practicum/Repairs & Maintenance OR .........4
PLB 299 Plumbing Cooperative Education .........................3
BRX 220 Blueprint Reading for Construction .........................3
BAS 120 Personal Finance OR ..........................................3
BAS 250 Business Employability Seminar ..........................3
ISX 101 Introduction to Industrial Safety OR .......................3

Subtotal 35-38

Total Credits (Pathway 2) 64-67

Diploma

Plumber Mechanic - 4605034019
(Offered at ELC, JFC, MYC, SMC)

General Education:

Area 1 = Written Communication, Oral Communications, or Heritage/Humanities ........................................3
Area 2 = Quantitative Reasoning .......................................3

Subtotal 6

Technical Courses:

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
PLB 261 Advanced Plumbing Lab OR .................................2
PLB 265 Valve & Faucet Repairs AND .................................2
PLB 267 Water Heater Service & Replacement AND .............2
PLB 269 Sewer & Drain Cleaning .......................................2
PLB 262 Back Flow Prevention .........................................3
PLB 270 License Preparation for Journeymen Exam .................3
PLB 298 Plumbing Practicum/Repairs & Maintenance OR .........4
PLB 299 Plumbing Cooperative Education .........................4
BRX 220 Blueprint Reading for Construction .........................3
BAS 120 Personal Finance OR ..........................................3
WPP 200 Workplace Principles OR .....................................3
BAS 250 Business Employability Seminar ..........................3
ISX 101 Introduction to Industrial Safety OR .......................3

Subtotal 39-45

Total 45 - 51
Certificates

Certified Backflow Tester* - 4605033079
(Offered at BSC, ELC, JFC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PLB 262 Backflow Prevention</td>
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</tbody>
</table>

*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test

Finish Plumber - 4605033069
(Offered at BSC, ELC, JFC, MYC)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PLB 150 Plumbing, Introduction to the Trade</td>
<td>3</td>
</tr>
<tr>
<td>PLB 151 Basic Plumbing Skills OR</td>
<td>3</td>
</tr>
<tr>
<td>PLB 100 Basic Theory of Plumbing AND</td>
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<tr>
<td>PLB 105 Plumbing Principles</td>
<td>(3)</td>
</tr>
<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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<tr>
<td>Electives (Technical Core)</td>
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Maintenance Plumber - 4605033049
(Offered at BSC, ELC, JFC, MYC)

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<tbody>
<tr>
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</tr>
<tr>
<td>PLB 151 Basic Plumbing Skills OR</td>
<td>3</td>
</tr>
<tr>
<td>PLB 100 Basic Theory of Plumbing AND</td>
<td>(3)</td>
</tr>
<tr>
<td>PLB 105 Plumbing Principles</td>
<td>(3)</td>
</tr>
<tr>
<td>PLB 115 Plumbing Applications</td>
<td>4</td>
</tr>
<tr>
<td>ISX 101 Introduction to Industrial Safety OR</td>
<td>3</td>
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<td>ISX 100 Industrial Safety</td>
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1st Year Plumber Mechanic - 4605033109
(Offered at BSC, ELC, JFC, MYC)

<table>
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<tbody>
<tr>
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<tr>
<td>PLB 151 Basic Plumbing Skills OR</td>
<td>3</td>
</tr>
<tr>
<td>PLB 100 Basic Theory of Plumbing AND</td>
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<td>PLB 105 Plumbing Principles</td>
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<tr>
<td>PLB 160 Plumbing Systems, DWV &amp; Water</td>
<td>3</td>
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<tr>
<td>PLB 161 Rough In of Plumbing Fixtures</td>
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<td>PLB 250 Plumbing Appliances &amp; Fixtures</td>
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2nd Year Plumber Mechanic* - 4605033119
(Offered at BSC, ELC, JFC, MYC)

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<tr>
<td>PLB 150 Plumbing, Introduction to the Trade</td>
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<tr>
<td>PLB 151 Basic Plumbing Skills OR</td>
<td>3</td>
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<tr>
<td>PLB 100 Basic Theory of Plumbing AND</td>
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<tr>
<td>PLB 105 Plumbing Principles</td>
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<tr>
<td>PLB 161 Rough In of Plumbing Fixtures</td>
<td>2</td>
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<td>PLB 250 Plumbing Appliances &amp; Fixtures</td>
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<td>PLB 262 Backflow Prevention</td>
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<td>PLB 261 Advanced Plumbing Lab AND</td>
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<tr>
<td>PLB 270 License Preparation for Journeyman Exam OR</td>
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<tr>
<td>PLB 260 Service AND</td>
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<tr>
<td>PLB 265 Valve &amp; Faucet Repairs AND</td>
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<td>PLB 267 Water Heater Service &amp; Replacement AND</td>
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*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test

Plumber Estimator - 4605033099
(Offered at BSC, ELC, JFC, MYC)

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<thead>
<tr>
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<tbody>
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<tr>
<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>
<td>(3)</td>
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<tr>
<td>PLB 160 Plumbing Systems, DWV &amp; Water AND</td>
<td>3</td>
</tr>
<tr>
<td>PLB 161 Rough In of Plumbing Fixtures OR</td>
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<td>PLB 250 Plumbing Appliances &amp; Fixtures AND</td>
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<tr>
<td>PLB 251 Pumps &amp; Water Heaters</td>
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<tr>
<td>PLB 261 Advanced Plumbing Lab OR</td>
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<td>PLB 265 Valve &amp; Faucet Repairs AND</td>
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<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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Plumber’s Helper - 4605033129
(Offered at ELC, GTW, JFC, MYC, SMC)

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<tbody>
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<tr>
<td>PLB 151 Basic Plumbing Skills OR</td>
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</tr>
<tr>
<td>PLB 100 Basic Theory of Plumbing AND</td>
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<td>PLB 105 Plumbing Principles</td>
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Rough Plumber - 4605033099
(Offered at ELC, JFC, MYC)

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<tbody>
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</tr>
<tr>
<td>PLB 151 Basic Plumbing Skills OR</td>
<td>3</td>
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<td>PLB 100 Basic Theory of Plumbing AND</td>
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<tr>
<td>PLB 105 Plumbing Principles</td>
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<tr>
<td>PLB 160 Plumbing Systems, DWV &amp; Water</td>
<td>3</td>
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<tr>
<td>PLB 161 Rough In of Plumbing Fixtures</td>
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<tr>
<td>Electives (Technical Core)</td>
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Service & Repair Plumber - 4605033089
(Offered at ELC, JFC, MYC)

<table>
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<tbody>
<tr>
<td>PLB 150 Plumbing, Introduction to the Trade</td>
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</tr>
<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>
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<tr>
<td>PLB 105 Plumbing Principles</td>
<td>(3)</td>
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<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>
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<tr>
<td>PLB 251 Pumps &amp; Water Heaters</td>
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<tr>
<td>PLB 260 Service &amp; Code Review</td>
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<td>PLB 267 Water Heater Service &amp; Replacement AND</td>
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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)

<table>
<thead>
<tr>
<th>PC</th>
<th>Course Description</th>
<th>Units</th>
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<tbody>
<tr>
<td>110</td>
<td>Introduction to Pottery</td>
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<tr>
<td>250</td>
<td>Professional Kiln Design</td>
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<tr>
<td>252</td>
<td>Professional Kiln Building</td>
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<td><strong>Total</strong></td>
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**Professional Raku Pottery - 5007113019**

(Offered at SEC)

<table>
<thead>
<tr>
<th>PC</th>
<th>Course Description</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>110</td>
<td>Introduction to Pottery</td>
<td>7</td>
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<tr>
<td>254</td>
<td>Professional Raku Pottery I</td>
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<tr>
<td>256</td>
<td>Professional Raku Pottery II</td>
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<td></td>
<td><strong>Total</strong></td>
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</tr>
</tbody>
</table>

**Professional Studio Artist**

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 an track of study and acquire the necessary technical proficiencies, 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 jewelry makers and technicians. The Jewelry Studio certificate will give the student an intensive foundation in metals technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of jewelry design and making procedures necessary for entry level positions in the custom or commercial jewelry industry.

The AASTrack in Bluegrass & Traditional Music prepares a student to begin work as a professional bluegrass and traditional musician in the areas of performance, touring, studio recording, studio engineering, and song writing. The track also provides training in music business, management and event promotion while providing the student preparation to pursue a four year degree. Program studies will offer in-depth mentoring and “real world” performance situations for solo, ensemble, and instrumental musicians as well as recording session set-up, sound enhancement and band management.

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 design 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 making necessary for entry level positions in custom or commercial ceramic industry.

Documentation of computer 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)

<table>
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<th>Course Code</th>
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<tr>
<td>ENG 101</td>
<td>Writing I ..................................................</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR ..................................</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications OR ...</td>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking ....................................</td>
<td>3</td>
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<tr>
<td>HUM 202</td>
<td>for Bluegrass and Traditional Music Track</td>
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</table>

Prior to enrolling in the first PSA course.

Documentation of computer literacy as defined by KCTCS is required complete Ceramics technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of ceramic object design and making necessary for entry level positions in the commercial ceramic industry.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first PSA course.

**Wood/Furniture Design Track - 500201701**

(Offered at HZC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ART 110</td>
<td>Drawing I ..................................................</td>
<td>3</td>
</tr>
<tr>
<td>ART 120</td>
<td>2-Dimensional Design ....................................</td>
<td>3</td>
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<tr>
<td>ART 130</td>
<td>3-Dimensional Design ....................................</td>
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</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management ................................</td>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I ...........................</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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<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 210</td>
<td>Furniture Making III ....................................</td>
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<td>PSW 211</td>
<td>Wood Bending and Veneering ............................</td>
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<td>PSW 212</td>
<td>Chair Design ...............................................</td>
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<td>PSW 215</td>
<td>Furniture Making IV .....................................</td>
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<td>Furniture/Wood Product Development ..................</td>
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<td>PSA 240</td>
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Sub Total 43

Total Credits 61-62

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**Jewelry/Metals Track - 500201702**

(Offered at HZC)

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<td>ART 130</td>
<td>3-Dimensional Design ....................................</td>
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<td>BAS 200</td>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I ...........................</td>
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<td>PSJ 116</td>
<td>Ancient Techniques .......................................</td>
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<td>PSJ 117</td>
<td>Metal Casting/Finishing Techniques ....................</td>
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<td>PSJ 210</td>
<td>Jewelry/Metals III .......................................</td>
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<td>PSJ 211</td>
<td>Holloware &amp; Metal Forming ................................</td>
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<td>PSJ 212</td>
<td>Metallurgy of Precious Metals ..........................</td>
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<td>Jewelry/Metals IV ........................................</td>
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<td>PSJ 216</td>
<td>Stone Setting ...............................................</td>
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Sub Total 45

Total Credits 63-64

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<td>Jewelry/Metals IV (Optional) ........................</td>
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**Bluegrass and Traditional Music Track - 500201703**

(Offered at HZC)

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</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I ...........................</td>
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<td>MUS 174</td>
<td>Theory for Non-Music Majors ............................</td>
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<td>MUC 150</td>
<td>Classic Instruction to Piano OR ........................</td>
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Competency by audition

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Competency by audition

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Sub Total 42-45

Total Credits 60-64

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**Ceramics Track - 500201704**

(Offered at HZC)

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Sub Total 45

Total Credits 63-67

**Diplomas**

**Wood Studio Technician - 5002014019**

(Offered at HZC)

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Any higher level Quantitative Reasoning course ................................| 3       |

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Sub Total 45

**Technical/Support Courses**

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Computer competency by exam

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### Jewelry/Metals Technician - 5002014029

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### Bluegrass & Traditional Studio Artist - 5002014039

**(Offered at HZC)**

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<td>Survey of Appalachian Studies I</td>
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### Ceramics Studio Technician - 5002014049

**(Offered at HZC)**

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### Certificates

#### Furniture Making Fundamentals - 5002013029

**(Offered at HZC)**

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#### Wood Furniture Studio - 5002013059

**(Offered at HZC)**

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#### Jewelry/Metals Fundamentals - 5002013019

**(Offered at HZC)**

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#### Jewelry Studio - 5002013069

**(Offered at HZC)**

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eliminating defects. Upon completion of the program, graduates are qualified for employment in entry-level managerial or supervisory positions. Course work uses and reflects the body of knowledge found in professional quality certifications such as offered by the American Society for Quality.

### Associate in Applied Science
#### Quality Management Systems - 1507027019
*(Offered at ELC)*

**General Education**

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</table>

**Total Credits** 27 hrs.

**Technical Core 18-21 hrs.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>QMS 101 Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 201 Customer Service Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>QMS 202 Performance Management</td>
<td>3</td>
</tr>
<tr>
<td>QMS 220 Quality Audits</td>
<td>3</td>
</tr>
<tr>
<td>QMS 240 Statistics for Quality I</td>
<td>3</td>
</tr>
<tr>
<td>QMS 242 Statistics for Quality II</td>
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</table>

**Total Credits** 18-21 hrs.

**Technical Support Courses—15-17 hrs.**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>QMS 210 Lean Processes</td>
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</tr>
<tr>
<td>QMS 212 Project Management</td>
<td>3</td>
</tr>
<tr>
<td>QMS 251 Strategic Quality Planning</td>
<td>3</td>
</tr>
<tr>
<td>QMS 262 Design of Experiments</td>
<td>4</td>
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<tr>
<td>QMS 299 Topics in Quality Management Systems: (Topic)</td>
<td>1-6</td>
</tr>
<tr>
<td>BAS 212 Introduction to Financial Management</td>
<td>3</td>
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<tr>
<td>BRX 120 Basic Blue Print reading</td>
<td>3</td>
</tr>
<tr>
<td>CAD 100 Introduction to Computer-Aided Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 150 Introduction to Programming</td>
<td>4</td>
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<tr>
<td>CAD 200 Intermediate Computer-Aided Design</td>
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<td>CAD 201 Advanced Computer-Aided Design</td>
<td>3</td>
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<tr>
<td>COE 199 Cooperative Education</td>
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<tr>
<td>ECO 101 Contemporary Economic Issues</td>
<td>3</td>
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<tr>
<td>ELT 110 Circuits I</td>
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<tr>
<td>ELT 114 Circuits II</td>
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<tr>
<td>ENV 110 Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ELT 102 Blue Print Reading</td>
<td>2</td>
</tr>
<tr>
<td>ELT 261 Instrumentation and Measurement</td>
<td>3</td>
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<tr>
<td>ISX 101 Introduction to Industrial Safety</td>
<td>3</td>
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<tr>
<td>IS 201 Occupational Health and Industrial Hygiene Methods</td>
<td>4</td>
</tr>
<tr>
<td>ISX 100 Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>ME 105 Basic Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>MFG 145 Manufacturing Process</td>
<td>3</td>
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<tr>
<td>MFG 256 Production Management</td>
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<tr>
<td>MFG 265 Robotics Fundamentals</td>
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</table>

**Total Credits** 60 - 65
Diploma

Quality Technician - 1507024029
(Offered at ELC, 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 Credits ......................................................... 30

Certificates

Lean Manufacturing Facilitator – 1507023119
(Offered at ELC)

QMS 101 Introduction to Quality Systems ...................... 3
QMS 210 Lean Processes ............................................. 3
QMS 220 Quality Audits ............................................... 3
Computer/Digital Literacy .......................................... 0-3
Total Credits ......................................................... 9-12

Quality Support - 1507023059
(Offered at ELC)

Available Completely Online

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 Credits ......................................................... 12

Quality Monitor - 1507023069
(Offered at ELC, HPC)

Available Completely Online

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 Credits ......................................................... 24

Quality Leader - 1507023079
(Offered at ELC)

Available Completely Online

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 Credits ......................................................... 12

Quality Specialist I - 1507023089
(Offered at ELC)

Available Completely Online

QMS 101 Introduction to Quality Systems ...................... 3
QMS 220 Quality Audits ............................................... 3
QMS 240 Statistics for Quality I .................................. 3
QMS 242 Statistics for Quality II ................................ 3
Total Credits ......................................................... 12

Quality Specialist II - 1507023099
(Offered at ELC)

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 Credits ......................................................... 13

Quality Auditor - 1507023109
(Offered at ELC)

ENG 101 Writing I .......................................................... 3
ENG 102 Writing II ...................................................... 3
ENG 203 Business Writing OR ...................................... 3
ENG 104 Technical Writing ......................................... (3)
QMS 201 Customer Service Improvement Skills .............. 3
QMS 220 Quality Audits ............................................... 3
Total Credits ......................................................... 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 concentration 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. 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 computer 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 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 - 5109077029**

(Offered at ASC, BLC, ELC, HZC, JFC, MDC, OWC, SEC, SKY, SMCC, WKC)

<table>
<thead>
<tr>
<th>General Education:</th>
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<tbody>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<tr>
<td>Heritage/Humanities</td>
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<tr>
<td>Oral Communications</td>
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<tr>
<td>ENG 101 Writing I</td>
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<tr>
<td>MAT 150 College Algebra OR</td>
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<tr>
<td>Higher Level Quantitative Reasoning</td>
<td>(3)</td>
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<tr>
<td>BIB 137 Human Anatomy &amp; Physiology I</td>
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<tr>
<td>BIB 139 Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>PHY 172 Physics for Health Sciences OR</td>
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<tr>
<td>PHY 152 Introduction to Physics OR</td>
<td>(3)</td>
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<tr>
<td>PHY 171 Applied Physics</td>
<td>(4)</td>
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<td><strong>Subtotal</strong></td>
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</table>

**Support Course:**

| CLA 131 Medical Terminology from Greek & Latin OR | 3 |
| AHS 115 Medical Terminology                     | (3) |
| **Subtotal**                                     | 3 |

| **Pathway 1 – 510907701**                      |   |
| (Offered at HZC)                              |   |
| Technical Courses:                            |   |
| IMG 100 Radiography I                        | 7 |
| IMG 101 Clinical I                           | 4 |
| IMG 110 Radiography II                       | 7 |
| IMG 111 Clinical II                          | 4 |
| IMG 201 Clinical III                         | 3 |
| IMG 210 Radiography IV                       | 4 |
| IMG 211 Clinical IV                          | 6 |
| IMG 220 Radiography V                         | 4 |
| IMG 221 Clinical V                           | 6 |
| **Subtotal**                                  | 45 |

| **Pathway 2 – 510907702**                      |   |
| (Offered at ASC, BLC, ELC, JFC, MDC, OWC, SEC, SKY, SMC, WKC) |   |
| Technical Courses:                            |   |
| IMG 120 Introduction to Radiography           | 2 |
| IMG 106 Patient Care in Radiography*          | 2 |
| IMG 108 Radiographic Procedures I             | 4 |
| IMG 109 Clinical Practice I                   | 1 |
| IMG 114 Image Production and Acquisition      | 2 |
| IMG 116 Advanced Patient Care in Radiography  | 2 |
| IMG 118 Radiographic Procedures II            | 4 |
| IMG 119 Clinical Practice II                  | 3 |
| IMG 209 Clinical Practice III                 | 3 |
| IMG 214 Imaging Equipment                     | 2 |
| IMG 216 Basic Computed Tomography             | 1 |
| IMG 219 Clinical Practice IV                  | 6 |
| IMG 224 Radiation Protection & Biology        | 2 |
| IMG 226 Radiography Pathology                 | 1 |
| IMG 228 Radiography Seminar                   | 2 |
| IMG 229 Clinical Practice V                   | 6 |
| **Subtotal**                                  | 43 |

| **Total Credits Pathway 2**                   | 71-73 |

**Certificate**

**Advanced Imaging in Radiography- 5109073029**

<table>
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<th>Core</th>
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<tbody>
<tr>
<td>IMG 230 Sectional Anatomy for Advanced Imaging</td>
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<tr>
<td>IMG 240 Pathology for Advanced Medical Imaging Modalities</td>
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<td><strong>Subtotal</strong></td>
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</table>

**Computed Tomography Track – 510907301**

(Offered at HZC, OWC, SEC, SMC)

| IMG 250 Computed Tomography Physics and Instrumentation | 3 |
| IMG 260 Computed Tomography Imaging Procedures         | 3 |
| **Subtotal**                                           | 6 |

| **Total Credits**                                     | 12 |

**Magnetic Resonance Imaging Track – 510907302**

(Offered at HZC, OWC, SEC, SMC)

| IMG 255 Magnetic Resonance Physics and Instrumentation | 3 |
| IMG 265 Magnetic Resonance Imaging Technology         | 3 |
| **Subtotal**                                          | 6 |

| **Total Credits**                                     | 12 |

**Real Estate**

This program has several purposes: (1) to prepare the student for entry into the real estate field; (2) to provide continuing education for the individual already licensed in real estate; (3) to provide an educational opportunity for persons wanting to fulfill professional or general interest needs; and (4) to provide a foundation for those planning to pursue the specialized fields of appraising, property management, commercial and industrial site selection, consulting, and urban and land use planning.

The curriculum covers such areas as real estate principles and practices, appraisal, finance, marketing, management, construction, and blueprints. Additional courses in real estate, business, and general education complete the program.

Individuals who complete the program may enter public or private employment in such real estate areas as sales, finance, development, management valuation, and market analysis. With experience, the individual may opt for positions in appraising, consulting, brokerage, and property management.

The Real Estate Program also offers two Real Estate Certificate programs: the Real Estate Pre-Licensing Certificate requiring 6 hours and the Residential Real Estate Certificate requiring 12 hours. The Real Estate Pre-Licensing Certificate provides the information students need to prepare for the Real Estate License exam. The Residential Real Estate Certificate provides students the information needed to enhance their abilities as residential real estate agents.

**Associate in Applied Science**

**Real Estate - 5215017000**

(Offered at JFC)

<table>
<thead>
<tr>
<th>General Education</th>
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</thead>
<tbody>
<tr>
<td>ENG 101 Writing I</td>
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<tr>
<td>ENG 102 Writing II</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
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<td>Oral Communications</td>
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### Program Requirements

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>REA 120</td>
<td>Real Estate Marketing</td>
<td>3</td>
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<tr>
<td>REA 121</td>
<td>Appraising</td>
<td>3</td>
</tr>
<tr>
<td>REA 201</td>
<td>Property Management</td>
<td>3</td>
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<tr>
<td>REA 202</td>
<td>Real Estate Investments</td>
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<tr>
<td>REA 220</td>
<td>Real Estate Brokerage Management</td>
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</tr>
<tr>
<td>REA 221</td>
<td>Commercial &amp; Industrial Property</td>
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</tr>
<tr>
<td>REA 222</td>
<td>Construction &amp; Blueprints OR</td>
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<tr>
<td>ACH 100</td>
<td>Construction Documents</td>
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<tr>
<td>REA 212</td>
<td>Real Estate Finance</td>
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<tr>
<td>REA 230</td>
<td>Real Estate Law</td>
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<tr>
<td>ACC 201</td>
<td>Financial Accounting I OR</td>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
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<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
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**Total Credits:** 25-28

### Technical Courses (Choose one of the following)

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<tr>
<td>CIS 130</td>
<td>Microcomputer Applications</td>
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<tr>
<td>REA 303</td>
<td>Commercial &amp; Industrial Property</td>
<td>3</td>
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<tr>
<td>REA 204</td>
<td>Land Planning &amp; Development</td>
<td>3</td>
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<tr>
<td>REA 205</td>
<td>Farm Brokerage</td>
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<tr>
<td>REA 212</td>
<td>Real Estate Investment II</td>
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<tr>
<td>REA 299</td>
<td>Selected Topics in Real Estate</td>
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<tr>
<td>REA 221</td>
<td>Basic Income Approach to Property Valuation</td>
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<tr>
<td>REA 222</td>
<td>Uniform Standards of Professional Appraisal Practice</td>
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**Total Credits:** 62-67

### Certificates

- **Real Estate Pre-Licensing - 5215013029**
  
- **Residential Real Estate - 5215013019**

### Recommended Additional Course(s)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics* OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>BIO 101</td>
<td>Writing I*</td>
<td>3</td>
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**Total Credits:** 23

### Technical Courses

<table>
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<th>Course Title</th>
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<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>4</td>
</tr>
<tr>
<td>RCP 140</td>
<td>Cardiopulmonary Assessment**</td>
<td>2</td>
</tr>
<tr>
<td>RCP 130</td>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>RCP 150</td>
<td>Clinical Practice I OR</td>
<td>2</td>
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<tr>
<td>RCP 121</td>
<td>Respiratory Care Practice I**</td>
<td>1</td>
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<tr>
<td>RCP 175</td>
<td>Clinical Practice II OR</td>
<td>3</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>
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<tr>
<td>RCP 190</td>
<td>Advanced Ventilatory Support OR</td>
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<tr>
<td>RCP 185</td>
<td>Introduction to Mechanical Ventilation** AND</td>
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<tr>
<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>
<td>3</td>
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<tr>
<td>RCP 201</td>
<td>Respiratory Care Practice III**</td>
<td>2</td>
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<tr>
<td>RCP 204</td>
<td>Emergency and Special Procedures AND</td>
<td>3</td>
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<tr>
<td>RCP 214</td>
<td>Advanced Diagnostic Procedures OR</td>
<td>3</td>
</tr>
<tr>
<td>RCP 240</td>
<td>Advanced Cardiopulmonary Evaluation** AND</td>
<td>3</td>
</tr>
<tr>
<td>RCP 245</td>
<td>Advanced Cardiac Life Support**</td>
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</table>

**Total Credits:** 12

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### 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 write the advanced practice examinations and receive the Registered Respiratory Therapist (RRT) credential.

*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: Computer/Digital literacy must be documented by competency exam or by completing a computer/digital literacy course.

Note: Hours Exception (67-70 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.

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### Associate in Applied Science

**Advanced Practice Respiratory Therapist - 5109087049**

(Offered at ASC, BLC, BSC, ELC, JFC, MDC, MYC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology*</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II*</td>
<td>4</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra* OR</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*</td>
<td>3</td>
</tr>
<tr>
<td>BIO 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
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<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
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**Total Credits:** 46-50

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### Recommended Additional Course(s)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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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>4</td>
</tr>
<tr>
<td>RCP 140</td>
<td>Cardiopulmonary Assessment**</td>
<td>2</td>
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<tr>
<td>RCP 130</td>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>RCP 150</td>
<td>Clinical Practice I OR</td>
<td>2</td>
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<td>RCP 121</td>
<td>Respiratory Care Practice I**</td>
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</tr>
<tr>
<td>RCP 175</td>
<td>Clinical Practice II OR</td>
<td>3</td>
</tr>
<tr>
<td>RCP 176</td>
<td>Respiratory Care Practice II**</td>
<td>2</td>
</tr>
<tr>
<td>RCP 180</td>
<td>Ventilatory Support AND</td>
<td>3</td>
</tr>
<tr>
<td>RCP 190</td>
<td>Advanced Ventilatory Support OR</td>
<td>2</td>
</tr>
<tr>
<td>RCP 185</td>
<td>Introduction to Mechanical Ventilation** AND</td>
<td>2</td>
</tr>
<tr>
<td>RCP 195</td>
<td>Patient Ventilator System Management**</td>
<td>4</td>
</tr>
<tr>
<td>RCP 200</td>
<td>Clinical Practices III OR</td>
<td>3</td>
</tr>
<tr>
<td>RCP 201</td>
<td>Respiratory Care Practice III**</td>
<td>2</td>
</tr>
<tr>
<td>RCP 204</td>
<td>Emergency and Special Procedures AND</td>
<td>3</td>
</tr>
<tr>
<td>RCP 214</td>
<td>Advanced Diagnostic Procedures OR</td>
<td>3</td>
</tr>
<tr>
<td>RCP 240</td>
<td>Advanced Cardiopulmonary Evaluation** AND</td>
<td>3</td>
</tr>
<tr>
<td>RCP 245</td>
<td>Advanced Cardiac Life Support**</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits:** 12
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, 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 benefit 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 locks and safes. This program will provide the technician with the training to service, maintain and troubleshoot safe 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.

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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.

**RCP courses currently only offered and required at BCTC for degree completion at that college.

### Certificates

**Polysomnographic Technologist - 5109083069**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology*</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.</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra* OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics* OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal** 17

### Technical Courses

**Introduction to Polysomnography** 2

**Level I** 3

**Lab I** 1

**Practice I** 3

**Level II** 3

**Lab II** 1

**Pathology of Sleep and Related Disorders** 3

**Practice II** 3

**Subtotal** 19

### Total Credits 36

**Electrocardiographic and Cardiac Monitoring Technician - 5109083049**

(Offered at BLC, BSC, ELC, JFC, SKY, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology*</td>
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</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics* OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics*</td>
<td>3</td>
</tr>
</tbody>
</table>

**Technical Courses**

**Cardiopulmonary Anatomy & Physiology** 3

**Evaluation OR** 4

**Assessment #** 2

**Practice I ** 1

**Respiratory Care Practice I #** 1

**Subtotal** 17-20

### Total Credits 17-20

### 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, safe and safe hardware is available.

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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

**Management Coordinator - 4301123010**

(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>LSI 120</td>
<td>Comprehensive Security Specialist</td>
<td>4</td>
</tr>
<tr>
<td>LSI 140</td>
<td>Managing Terrorism &amp; Other Crises</td>
<td>1</td>
</tr>
<tr>
<td>LSI 150</td>
<td>Professional Locksmithing</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits** 12

### 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>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSI 100</td>
<td>Fundamental Principles of Physical Security</td>
<td>2</td>
</tr>
<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>
</tr>
<tr>
<td>LSI 115</td>
<td>Command Security Officer Training</td>
<td>4</td>
</tr>
<tr>
<td>LSI 130</td>
<td>GSA: Locks, Vaults &amp; Containers</td>
<td>4</td>
</tr>
<tr>
<td>LSI 131</td>
<td>GSA: Locks, Vaults &amp; Containers Certified Inspector Training</td>
<td>1</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 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>
</tbody>
</table>
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.

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.

For program admission, student must be a certified Surgical Technologist or an RN with operating room experience. Student must provide current documentation of certificate/license.

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 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 national board examinations offered by the National Surgical Assistant Association (CSA) or the National Board of Surgical Technologists and Surgical Assistants (CSFA). Students who have completed program requirements must sit 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 certification examination offered by the National Board on Certification for 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 (ARCS/STSA), 6 West Dry Creek Circle, Suite 110; Littleton, CO 80120; Phone: (303) 694 9262; www.arcs.org; 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, SKY, SMC, WKC)

General Education:

<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 I AND</td>
<td>4</td>
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<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</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>MIT 103</td>
<td>Medical Office Terminology</td>
<td>3</td>
</tr>
<tr>
<td>SUR 100</td>
<td>Surgical Technology Fundamentals/Theory OR</td>
<td>12</td>
</tr>
<tr>
<td>SUR 109</td>
<td>Introduction to Surgical Technology AND</td>
<td>3</td>
</tr>
<tr>
<td>SUR 110</td>
<td>Surgical Technology Fundamentals</td>
<td>9</td>
</tr>
<tr>
<td>BIO 227</td>
<td>Principles of Microbiology OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 226</td>
<td>Principles of Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 118</td>
<td>Microbes and Society</td>
<td>3</td>
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<td>SUR 101</td>
<td>Surgical Technology Fundamentals</td>
<td>1</td>
</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>
</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>
</tr>
</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: 20

Technical Courses:

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>3</td>
</tr>
<tr>
<td>SUR 109</td>
<td>Introduction to Surgical Technology AND</td>
<td>3</td>
</tr>
<tr>
<td>SUR 110</td>
<td>Surgical Technology Fundamentals</td>
<td>9</td>
</tr>
<tr>
<td>BIO 227</td>
<td>Principles of Microbiology OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 226</td>
<td>Principles of Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 118</td>
<td>Microbes and Society</td>
<td>3</td>
</tr>
<tr>
<td>SUR 101</td>
<td>Surgical Technology Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>SUR 130</td>
<td>Principles of Surgical Pharmacology</td>
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</tr>
<tr>
<td>SUR 275</td>
<td>Surgical Technology Advanced Clinical Practicum</td>
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</table>

Subtotal: 40-45

Total Credits: 60-65

Elective(s):

<table>
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<th>Course</th>
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<th>Credits</th>
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</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 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</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.

Certificates

Surgical Technology Bridge Program - 5109093019
(Offered at BSC, OWC)

<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

Academic Curricula
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 / surveying projects, 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)

ENG 101 Writing I ............................................................. 3
MAT 116 Technical Mathematics or ........................................... 3
SMT 110 Principles of Surveying .............................................. 3
SMT 130 Land Surveying Graphics ..........................................(3)
SMT 160 Construction Surveying ............................................. 3
SMT 210 Advanced Surveying Measurement ................................ 3
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
SMT 310 Principles of Surveying, or ........................................... 3
SMT 330 Land Boundary Location .......................................... 3
SMT 350 Mine Surveying ....................................................... 3
SMT 370 Professional Ethics and Conduct for Land Surveyors ....... 3
SMT 390 Boundary Law .......................................................... 3
SMT 211 Land Surveying Graphics ............................................(3)
SMT 221 Surveying Lab ......................................................... 3
SMT 231 Land Boundary Location ............................................ 3
SMT 251 Mine Surveying ....................................................... 3
SMT 271 Professional Ethics and Conduct for Land Surveyors ....... 3
SMT 291 Boundary Law .......................................................... 3
SMT 311 Principles of Surveying, or ........................................... 3
SMT 331 Land Boundary Location ............................................ 3
SMT 351 Mine Surveying ....................................................... 3
SMT 371 Professional Ethics and Conduct for Land Surveyors ....... 3
SMT 391 Boundary Law .......................................................... 3
Subtotal 15

Technical Core

Computer/Digital Literacy ....................................................... 3
SMT 110 Principles of Surveying .............................................. 3
SMT 130 Land Surveying Graphics ..........................................(3)
SMT 210 Advanced Surveying Measurement ................................ 3
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

AAS Total 60

Diploma
Surveying Technician III - 1511024019
(Offered at BSC)

Required General Education
ENG 101 Writing I ............................................................. 3
MAT 116 Technical Mathematics ............................................. 3
Subtotal 6

Required Technical Courses
Computer/Digital Literacy ....................................................... 3
COM 181 Basic Public Speaking ................................................ 3
SMT 110 Principles of Surveying .............................................. 3
SMT 130 Land Surveying Graphics ..........................................(3)
SMT 160 Construction Surveying ............................................. 3
SMT 210 Advanced Surveying Measurement ................................ 3
SMT 220 Surveying Lab ......................................................... 3
SMT 230 Land Boundary Location ............................................ 3
Technical Electives Approved by Program Coordinator ................. 9
Subtotal 33

Diploma Total 39

Certificates
Surveying Technician II - 1511023029
(Offered at BSC, HZC, SEC)

SMT 110 Principles of Surveying .............................................. 3
SMT 130 Land Surveying Graphics ..........................................(3)
Technical Electives Approved by Program Coordinator ................. 12
Certificate Total 12

Surveying Technician I - 1511023019
(Offered at BSC, HZC, SEC)

SMT 110 Principles of Surveying .............................................. 3
SMT 130 Land Surveying Graphics ..........................................(3)
Certificate Total 6

Technical Theatre

The Technical Theatre Certificate will prepare students for an entry level position as a theatre technician and/or advanced studies in the areas of lighting, scenery, and sound.

Certificates
Technical Theatre - 5005013019
(Offered at OWC)

General Education Courses
THA 101 Introduction to Theatre: Principles and Practice ............ 3
COM 181 Basic Public Speaking (OR) ........................................ 3
ENG 101 Writing I .............................................................(3)
Technical Core
THA 150 Fundamentals of Production ..................................... 3
THA 250 Stage Electrics .........................................................3
THA 260 Stagecraft ...............................................................3
THA 190 Production Practicum .............................................. 1
Technical Electives (Select one of the following)
ART 113 3-Dimensional Design ............................................... 3
ELT 110 Circuits I ............................................................... 5
CAD 102 Drafting Fundamentals ............................................ 4
WLD 100/101 Oxy-Fuel Systems/ with lab .................................. 2/2
CAR 126/127 Introduction to Construction/Intro to Construction Lab .. 3/1
Total 19-21

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, HPC, MYC)

TRU 100 Truck Driving .......................................................... 6
Total Credits 6
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, anesthesia, 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 150 College Algebra ................................................3
BIO 112 Introduction to Biology ......................................3
BIO 113 Introduction to Biology Lab ................................3
COM 252 Introduction to Interpersonal Communication .....3

Total General Education Requirements 19

Required Technical Courses

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

Total Credits 24

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 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

ENG 101 Writing I ..........................................................3
ART 106 Renaissance Through Modern Art History ..........3
MAT 110 Applied Mathematics OR ...............................3
MAT 146 Contemporary College Mathematics OR ..........(3)
MAT 150 College Algebra .............................................(3)
COM 252 Introduction to Interpersonal Communication .....3

Total General Education Requirements 15

Core Communication Art Courses

VCC 150 Mac Basics OR any Computer/Digital Literacy equivalent* 0-3
VCC 100 Introduction to Visual Communication .............3
ART 110 Drawing I ........................................................3
VCA 132 Illustration for Advertising ..........................3
VCA 170 Advertising Design I ....................................3

Subtotal 50-53

AAS Total 69-72

Tractor Trailer, CDLA II - 4902053029

(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 .............................................3
TRK 165 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

Tractor Trailer, CDLA III - 4902053039

(Offered at JFC)

TNT 100 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

Academic Curricula
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<td>Commercial Photography I</td>
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<tr>
<td>VCA 161</td>
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### Advertising Design Track - 500406701
(Offered at JFC)

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<th>Course Title</th>
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<td>2-D Animation</td>
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<td>VCM 220</td>
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<td>VCA 298</td>
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### Commercial Photography Track - 500406702
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<td>VCA 261</td>
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### Digital Filmmaking Track - 500406703
(Offered at JFC)

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<td>Beginning Workshop in Imaginative Writing: Scriptwriting</td>
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<td>MIS 120</td>
<td>Music Technology I</td>
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<td>THA 126</td>
<td>Acting E: Fundamentals of Acting</td>
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<td>VCA 151</td>
<td>Digital Filmmaking I</td>
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<td>VCA 152</td>
<td>Digital Filmmaking II</td>
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<td>VCA 251</td>
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<td>VCA 298</td>
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### Webpage Design Track - 500406704
(Offered at JFC)

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<td>CIT 155</td>
<td>Web Page Development</td>
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<td>VCM 220</td>
<td>Webpage Design</td>
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<td>IMD 180</td>
<td>Intermediate Web Design</td>
<td>3</td>
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<td>VCM 115</td>
<td>2D Animation</td>
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<td>VCM 230</td>
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<td>CIT 140</td>
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<td>VCA 290</td>
<td>Folio Seminar</td>
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<td>VCA 298</td>
<td>Practicum</td>
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*Either successfully passing computer competency exam or taking an approved computer/digital literacy course.
### Associate in Applied Science

**Design & Technology – 5004097019**  
*(Offered at BSC)*

#### General Education Requirements

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<tr>
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<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
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<tr>
<td>VCA 102</td>
<td>Fundamentals of Drawing OR</td>
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<td>Drawing I</td>
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<td>VCC 105</td>
<td>Fundamentals of Typography</td>
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<td>COE 199</td>
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<td>VCC 297</td>
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**Total General Education Requirements** 15

#### Required Technical Core:

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>VCC 260</td>
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<td>VCA 255</td>
<td>Corporate Design</td>
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**Subtotal** 0-3

#### Graphic Design Track – 500409701

*(Offered at BSC)*

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<th>Credits</th>
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<tbody>
<tr>
<td>VCC 260</td>
<td>Publication Design</td>
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<tr>
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<td>VCA 250</td>
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<tr>
<td>VCA 255</td>
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**Approved Technical Electives** 6

**Subtotal** 18

**Total Credit Hours for AAS Graphic Design Track** 63-66

#### Interactive Design Track – 500409702

*(Offered at BSC)*

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>VCM 115</td>
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<tr>
<td>IMD 240</td>
<td>Web Development with Adobe Flash</td>
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<tr>
<td>VCM 140</td>
<td>Digital Video</td>
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<tr>
<td>VCM 220</td>
<td>Web Page Design OR</td>
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<td>IMD 232</td>
<td>Web Design with Adobe Dreamweaver</td>
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**Approved Technical Electives** 9

**Subtotal** 18

**Total Credit Hours for AAS Interactive Design Track** 63-66

#### Production Design Track – 500409703

*(Offered at BSC)*

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<tr>
<td>VCC 214</td>
<td>Dye Sublimation Processes</td>
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<tr>
<td>VCC 216</td>
<td>Pad Printing</td>
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<td>VCC 218</td>
<td>Digital Printing</td>
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<td>VCP 250</td>
<td>Screen Printing</td>
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**Approved Technical Electives** 3

**Subtotal** 18

**Total Credits for AAS Production Design Track** 63-66

### Diplomas

**Graphic Design - 5004094019**

*(Offered at BSC, GTW)*

#### Required General Education

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<td>Natural Sciences OR</td>
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**Subtotal** 6

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<td>ART 110</td>
<td>Drawing I</td>
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<tr>
<td>VCC 105</td>
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**Technical or Support Courses:**

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**Total Credits for Graphic Design Diploma** 48-51

**Interactive Design – 5004094029**

*(Offered at BSC)*

#### Required General Education

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**Subtotal** 6

#### Technical or Support Courses:

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**Total Credits for Graphic Design Diploma** 54-57
### Required General Education

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**Subtotal**: 6

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**Subtotal**: 48-51

### Total Credits for Interactive Design Diploma 54-57

### Total Credits for Digital Photography Certificate 12

### Production Design – 500494039

*(Offered at BSC)*

### Required General Education

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**Subtotal**: 6

### Technical or Support Courses:

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**Subtotal**: 48-51

### Total Credits for Production Design Diploma 54-57

### Certificates

#### Design Assistant – 500493019

*(Offered at GTW, BSC, WKC)*

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**Total Credits for Design Assistant Certificate**: 24

#### Digital Photography – 500493069

*(Offered at BSC, SMC, WKC)*

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**Total Credits for Digital Photography Certificate**: 12

### Production Design Assistant – 500493089

*(Offered at BSC, WKC)*

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**Total Credits for Production Design Assistant Certificate**: 18

### Visual Communication: Multimedia

The Visual Communication: Multimedia Track provides students the skills necessary to prepare and produce multimedia presentations, web sites, animations, audio/video presentations, etc. In order to advance in a Visual Communication: Multimedia (VCM) course, a student must make a letter grade of “C” or better.

### Associate in Applied Science

#### Multimedia - 1003047019

*(Offered at HZC, WKC)*

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**Total Credits for Multimedia**: 33-36

### Technical Core

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**Total Credits for Technical Core**: 15
## Academic Curricula

### Multimedia - 100304401
(Offered at HZC, WKC)

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Total Credits for Multimedia Track: 63-66

### Multimedia - 100304402
(Offered at SMC, WKC)

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Total Credits for Multimedia Track: 63-66

### Multimedia - 100304403
(Offered at WKC)

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Total Credits for Multimedia Track: 63-66

### Digital Design Track - 100304404
(Offered at HZC, WKC)

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Total Credits for Digital Design Diploma: 54-57

### Web Design Track - 100304405
(Offered at WKC)

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Total Credits for Audio/Video Track: 54-57
Certificates

Multimedia - 1003043019
(Offered at HZC, JFC, WKC)

VCA 108 Digital Color Theory .............................................. 3
VCC 100 Introduction to Visual Communication .......................... 3
VCC 110 Graphic Design Concepts .......................................... 3
VCC 150 Mac Basics ............................................................ 3
VCC 166 Photoshop Basics .................................................... 3
VCC 200 Computer Illustration ............................................... 3
VCM 110 Fundamentals of Animation ...................................... 3
VCM 140 Digital Video .......................................................... 3
VCM 220 Webpage Design ...................................................... 3
Approved Technical Electives .............................................. 3
Total for Multimedia Certificate 30

Animation - 1003043029
(Offered at HZC, JFC, SMW, WKC)

VCA 108 Digital Color Theory .............................................. 3
VCC 100 Introduction to Visual Communication .......................... 3
VCC 105 Fundamentals of Typography ...................................... 3
VCC 110 Graphic Design Concepts .......................................... 3
VCC 150 Mac Basics ............................................................ 3
VCC 166 Photoshop Basics .................................................... 3
VCC 200 Computer Illustration ............................................... 3
VCM 110 Fundamentals of Animation ...................................... 3
VCM 115 2-D Animation ....................................................... 3
VCM 210 3-D Animation ........................................................ 3
Total for Animation Certificate 30

Web Design - 1003043039
(Offered at BSC, GTW, HZC, JFC, SMW, WKC)

VCC 100 Introduction to Visual Communication .......................... 3
VCC 105 Fundamentals of Typography ...................................... 3
VCC 110 Graphic Design Concepts .......................................... 3
VCC 108 Digital Color Theory ............................................... 3
VCC 150 Mac Basics ............................................................ 3
VCC 166 Photoshop Basics .................................................... 3
VCC 200 Computer Illustration ............................................... 3
VCM 115 2-D Animation ....................................................... 3
VCM 220 Webpage Design ...................................................... 3
VCM 230 Advanced Webpage Design ...................................... 3
Total 30

Audio/Video - 1003043049
(Offered at HZC, WKC)

VCA 108 Digital Color Theory .............................................. 3
VCC 100 Introduction to Visual Communication .......................... 3
VCC 105 Fundamentals of Typography ...................................... 3
VCC 150 Mac Basics ............................................................ 3
VCC 166 Photoshop Basics .................................................... 3
VCM 140 Digital Video .......................................................... 3
VCM 115 2-D Animation ....................................................... 3
VCM 240 Advanced Digital Video ........................................... 3
Approved Elective .............................................................. 3
Total 30

Digital Design - 1003043059
(Offered at HZC, JFC, WKC)

VCC 100 Introduction to Visual Communication .......................... 3
VCC 105 Fundamentals of Typography ...................................... 3
VCA 108 Digital Color Theory ............................................... 3
VCC 150 Mac Basics ............................................................ 3

Visual Communication: Printing

Printing is an option under the broader heading of Visual Communication. The Printing curriculum emphasizes technical competence to better prepare students for successful careers in print manufacturing and/or digital production in a highly developed consumer economy. Laboratory experiences in page layout, computer illustration, photo imaging, pre-press technologies, various printing operations, and finishing and bindery techniques are combined with classroom work. All technical courses must be completed with "C" (2.0) or greater to advance in all Visual Communication programs.

Certificate in Applied Science

Print Manufacturing - 1003017019

General Education Requirements – 15-18 credit hours

MAT 110 Applied Mathematics OR ........................................... 3
Higher Level Quantitative Reasoning ......................... (3)
Social/Behavioral Sciences ........................................ (3)
Heritage/Humanities .................................................. (3)
ENG 101 Writing I ......................................................... 3
Subtotal 15

Required Core:

Computer/Digital Literacy ............................................... 0-3
VCC 100 Introduction to Visual Communication .......................... 3
VCC 105 Fundamentals of Typography ...................................... 3
VCC 166 Photoshop Basics .................................................... 3
VCC 200 Computer Illustration ............................................... 3
VCC 220 InDesign Basics ..................................................... 3
VCC 270 Acrobat Basics ....................................................... 3
VCP 285 Electronic Prepress .................................................. 3
COE 199 Cooperative Education OR ......................................... 3
VCC 297 Internship OR ....................................................... (3)
VCC 298 Practicum .......................................................... (3)
Total 24-27

Print Manufacturing Track - 100301701

VCP 140 Finishing and Binding Operations ................................ 3
VCP 230 Press I ............................................................. 6
VCP 274 Press II ............................................................ 6
Approved Technical Electives ........................................... 6
Subtotal 21

Total for Print Manufacturing AAS 60-63

Digital Production Artist Track - 100301702

VCA 120 Digital Photography .................................................. 3
VCC 230 Advanced InDesign ................................................ 3
VCC 266 Advanced Photoshop ............................................... 3
Approved Technical Electives ........................................... 12
Subtotal 21

Total for Digital Production AAS 60-63

Associate in Applied Science
**Diplomas**

**Digital Production Artist - 1003014019**
*(Offered at BSC, JFC, SMC)*

**General Education Requirements**

- Written Communication OR ................................................................. 3
- Oral Communications OR ................................................................. (3)
- Humanities/Heritage ..................................................................... (3)
- Quantitative Reasoning OR ................................................................. 3
- Natural Sciences ............................................................................... (3)
- Social/Behavioral Sciences ............................................................... (3)

**Technical or Support Courses**

- Computer/Digital Literacy ............................................................... 0-3
- VCA 120 Digital Photography ............................................................ 3
- VCC 100 Introduction to Visual Communication ............................... 3
- VCC 105 Fundamentals of Typography .............................................. 3
- VCC 166 Photoshop Basics .............................................................. 3
- VCC 200 Computer Illustration ......................................................... 3
- VCC 220 InDesign Basics ................................................................. 3
- VCC 230 Advanced InDesign ............................................................ 3
- VCC 266 Advanced Photoshop ......................................................... 3
- VCC 270 Acrobat Basics ................................................................. 3
- VCP 285 Electronic Prepress ............................................................. 3
- COE 199 Cooperative Education OR ............................................... 3
- VCC 297 Internship OR .................................................................. (3)
- VCC 298 Practicum .......................................................................... (3)

**Approved Technical Electives ........................................................ 9**

**Subtotal** .......................................................................................... 42-45

**Total for Digital Production Artist Diploma** ........................................... 48-51

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**Print Manufacturing – 1003014029**
*(Offered at BSC, JFC)*

**General Education Requirements**

- Written Communication OR ................................................................. 3
- Oral Communications OR ................................................................. (3)
- Humanities/Heritage ..................................................................... (3)
- Quantitative Reasoning OR ................................................................. 3
- Natural Science ............................................................................... (3)
- Social/Behavioral Sciences ............................................................... (3)

**Technical or Support Courses**

- Computer/Digital Literacy ............................................................... 0-3
- VCC 100 Introduction to Visual Communication ............................... 3
- VCC 105 Fundamentals of Typography .............................................. 3
- VCC 166 Photoshop Basics .............................................................. 3
- VCC 200 Computer Illustration ......................................................... 3
- VCC 220 InDesign Basics ................................................................. 3
- VCC 270 Acrobat Basics ................................................................. 3
- VCP 140 Finishing & Binding Operations ......................................... 3
- VCP 230 Press I .............................................................................. 6
- VCP 274 Press II ............................................................................. 6

**Approved Technical Electives ........................................................ 9**

**Subtotal** .......................................................................................... 42-45

**Total for Print Manufacturing Diploma** .............................................. 48-51

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**Certificates**

**Digital Production Assistant - 1003013019**
*(Offered at BSC, JFC, SMC)*

**Technical or Support Courses**

- VCC 100 Introduction to Visual Communication ............................... 3
- VCC 105 Fundamentals of Typography .............................................. 3
- VCC 166 Photoshop Basics .............................................................. 3
- VCC 220 InDesign Basics ................................................................. 3
- Approved Technical Elective ............................................................... 3

**Total** ................................................................................................. 15

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**Print Shop Assistant - 1003013029**
*(Offered at BSC, JFC)*

**Technical or Support Courses**

- VCC 100 Introduction to Visual Communication ............................... 3
- VCP 140 Finishing & Binding Operations ......................................... 3
- VCP 230 Press I .............................................................................. 6
- VCP 274 Press II ............................................................................. 6

**Total** ................................................................................................. 18

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**Offset Press Operator - 1003013039**
*(Offered at BSC, JFC)*

**Technical or Support Courses**

- VCC 100 Introduction to Visual Communication ............................... 3
- VCP 140 Finishing & Binding Operations ......................................... 3
- VCP 230 Press I .............................................................................. 6
- VCP 274 Press II ............................................................................. 6

**Total** ................................................................................................. 18

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**Digital Imaging Assistant - 1003013059**
*(Offered at BSC, SMC, WKC)*

**Technical or Support Courses**

- VCC 166 Photoshop Basics .............................................................. 3
- VCA 120 Digital Photography ............................................................ 3
- Approved Technical Electives ............................................................... 6

**Total** ................................................................................................. 12

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**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**
*(Offered at JFC)*

- ART 110 Drawing I .......................................................................... 3
- ART 112 2-Dimensional Design ....................................................... 3
- ART 105 Ancient through Medieval Art History OR ........................ 3
- ART 106 Renaissance through Modern Art History OR ........................ 3
- Approved Art History Course ............................................................. 9

**Total 2-Dimensional Studies Certificate** ........................................... 18
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

(Offered at JFC)

- BIO 137 Human Anatomy and Physiology I* ................................ 4
- BIO 139 Human Anatomy and Physiology II* ............................... 4
- VMI 200 Sectional Anatomy & Pathology I ................................. 4
- VMI 201 Sectional Anatomy & Pathology II ................................. 4
- VMI 210 Volumetric Medical Imaging I ...................................... 4
- VMI 211 Volumetric Medical Imaging II ..................................... 4

Total Credits 24

*Bio 137 & 139 must have been completed within the last 10 years.

Welding Technology

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 ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

- ENG 101 Writing I OR ................................................... 3
- TEC 200 Technical Communications .................................... 3
- MAT 110 Applied Mathematics OR .................................... 3
- MAT 116 Technical Mathematics OR ................................ 3
- MAT 146 Contemporary College Mathematics OR ............. 3
- MAT 150 College Algebra OR ........................................... 3
- MA 109 College Algebra .................................................. 3
- PH 151 Introductory Physics I AND ..................................(3)
- PH 161 Introductory Physics Lab I .....................................(1)
- PSY 110 General Psychology OR ..................................... 3
- SOC 101 Introduction to Sociology ..................................... 3
- COM 252 Introduction to Interpersonal Communication OR .... 3
- COM 181 Basic Public Speaking ........................................ 3

General Education Total Credits 18-19

Required

- WLD 100 Oxy-Fuel Systems LAB ...........................................(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 Gas Tungsten Arc Welding (GTAW) ......................... 2
- WLD 226 Gas Tungsten Arc Welding (GTAW) Fillet Lab .......... 3
- WLD 298 Welding Practicum OR ...........................................(1-4)
- WLD 299 Cooperative Work Experience ................................ (1-4)
- WLD 299 Technical Electives ............................................. 3

Subtotal 42 - 49

Total Credits 60 – 68

NOTE: Computer/Digital literacy must be demonstrated either by competency exam or 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)

- ENG 101 Writing I OR ................................................... 3
- TEC 200 Technical Communications .................................... 3
- MAT 110 Applied Mathematics OR .................................... 3
- MAT 116 Technical Mathematics OR ................................ 3
- MAT 146 Contemporary College Mathematics OR ............. 3
- MAT 150 College Algebra OR ........................................... 3
- MA 109 College Algebra .................................................. 3

General Education Total Credits 6

Required

- WLD 100 Oxy-Fuel Systems OR ........................................... 2
- WLD 111 Cutting Processes .................................................. 2
- WLD 120 Shielded Metal Arc Welding (SMAW) ....................... 2
- WLD 123 Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR ................................................. 3
- WLD 225 Gas Tungsten Arc Welding (GTAW) ......................... 2
- WLD 226 Gas Tungsten Arc Welding (GTAW) Fillet Lab .......... 3
- WLD 298 Welding Practicum OR ...........................................(1-4)
- WLD 299 Cooperative Work Experience ................................ (1-4)
- WLD 299 Technical Electives ............................................. 3

NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.
*Technical Electives:*

**WPP 200** Workplace Principles ........................................... 3

**WLD 151** Basic Welding A .................................................. 2

**WLD 161** Submerged Arc Welding Lab .................................... 3

**WLD 168** Advanced Welding Systems Lab ................................... 1

**WLD 191** Plasma Arc Welding Systems Lab ................................ 1

**WLD 147** Flux Cored Arc Welding Lab .................................... 1

**WLD 145** Gas Metal Arc Welding Aluminum Lab .......................... 1

**WLD 251** Welding Automation Lab ........................................... 1

**WLD 253** Pipe Fitting and Template Development Lab .................... 1

**WLD 229** Shielded Metal Arc Welding Pipe Lab B ......................... 3

**WLD 239** Orbital Tube Welding ................................................ 1

**WLD 240** Materials Technology ................................................. 2

**BEX 100** Basic Electricity for Non-Majors ................................ 3

**BEX 101** Basic Electricity Lab for Non-Majors .......................... 2

**FEX 100** Fundamentals of Electricity for Non-Majors .................... 3

*This list is not all inclusive. Other courses may be approved at the discretion of the program coordinator.*

## 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 (GMAW) ................................. (2)

**WLD 141** Gas Metal Arc Welding (GMAW) 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) .............................. (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 (GMAW) AND ......................... (2)

**WLD 141** Gas Metal Arc Welding (GMAW) Fillet Lab OR .......... (3)

**WLD 152** Basic Welding B .................................................. 5

**WLD 120** Shielded Metal Arc Welding (SMAW) .............................. (2)

**WLD 121** Shielded Metal Arc Welding (SMAW) Fillet Lab OR .......... (3)

**WLD 130** Gas Tungsten Arc Welding (GTAW) AND ....................... (2)

**WLD 140** Gas Metal Arc Welding (GMAW) AND ......................... (2)

**WLD 141** Gas Metal Arc Welding (GMAW) 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 100** Oxy-Fuel Systems OR ............................................. 2

**WLD 110** Cutting Processes .................................................. (2)

**WLD 101** Oxy-Fuel Systems Lab ............................................. 2

**WLD 111** Cutting Processes Lab ............................................. (3)

**WLD 120** Shielded Metal Arc Welding ...................................... 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 140** Gas Metal Arc Welding (GMAW) ................................. 2

**WLD 141** Gas Metal Arc Welding (GMAW) Fillet Lab OR .......... (3)

**WLD 143** Gas Metal Arc Welding (GMAW) Fillet Groove Lab .......... (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, GTW, HEC, HPC, 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 ............................................. 2

**WLD 111** Cutting Processes Lab ............................................. (3)

**WLD 120** Shielded Metal Arc Welding (SMAW) .............................. (2)

**WLD 130** Gas Tungsten Arc Welding (GTAW) .............................. 2

**WLD 140** Gas Metal Arc Welding (GMAW) ................................. 2

**WLD 141** Gas Metal Arc Welding (GMAW) Fillet 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 (GMAW) Pipe Lab B ............. (3)

**WLD 253** Pipe Fitting and Template Development Lab .................. (1)

Total 29-40

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**Total Credits 7-10**

**Total Credits 47-55**

**Total Credits 41-49**

**Total Credits 19-20**

**Total Credits 24-25**

**Total Credits 29-40**

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**215**

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**Academic Curricula**
AWS National Skills Standards Level I - 4805083089
(Offers 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 .............. 3
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab ............ 3
WLD 140 Gas Metal Arc Welding (GMAW) ..................................... 2
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab ...................... 3
WLD 143 Gas Metal Arc Welding (GMAW) Groove Lab OR .......... 3
WLD 170 Blueprint Reading for Welding ........................................ 2
WLD 171 Blueprint Reading for Welding Lab .................................. 3

Total 33-34

Shielded Metal Arc Welding - 4805083139
(Offers at BLC, BSC, ELC, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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 170 Blueprint Reading for Welding ........................................ 2
WLD 171 Blueprint Reading for Welding Lab .................................. 3
WLD 100 Oxy-Fuel Systems OR ..................................................... 2
WLD 110 Cutting Process ........................................................... (2)
WLD 101 Oxy-Fuel Systems Lab OR .............................................. 2
WLD 111 Cutting Processes Lab ...................................................... (3)

Total 17-18

Gas Metal Arc Welding - 4805083149
(Offers at BLC, BSC, ELC, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

WLD 140 Gas Metal Arc Welding (GMAW) ..................................... 2
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab ...................... 3
WLD 143 Gas Metal Arc Welding (GMAW) Groove Lab OR .......... 3
WLD 245 Gas Metal Arc Welding (GMAW) Pipe Lab A OR ............ (3)
WLD 147 Flux Cored Arc Welding (FCAW) Lab ......................... (1)
WLD 170 Blueprint Reading for Welding ........................................ 2
WLD 171 Blueprint Reading for Welding Lab .................................. 3
WLD 100 Oxy-Fuel Systems OR ..................................................... 2
WLD 110 Cutting Process ........................................................... (2)
WLD 101 Oxy-Fuel Systems Lab OR .............................................. 2
WLD 111 Cutting Processes Lab ...................................................... (3)

Total 15-18

Gas Tungsten Arc Welding - 4805083159
(Offers at BLC, BSC, ELC, HEC, 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 133 Gas Tungsten Arc Welding (GTAW) Groove Lab OR .......... 3
WLD 235 Gas Tungsten Arc Welding (GTAW) Pipe Lab A .......... (3)
WLD 170 Blueprint Reading for Welding ........................................ 2
WLD 171 Blueprint Reading for Welding Lab .................................. 3
WLD 100 Oxy-Fuel Systems OR ..................................................... 2
WLD 110 Cutting Process ........................................................... (2)
WLD 101 Oxy-Fuel Systems Lab OR .............................................. 2
WLD 111 Cutting Processes Lab ...................................................... (3)

Total 17-18

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
(Offers at JFC)

WGS 200 Introduction to Women's and Gender Studies in the Social Sciences OR ..................................................... 3
WGS 201 Introduction to Women's and Gender Studies in the Arts and Humanities ................................................. (3)
HIS 266 History of American Women to 1920 OR ..................(3)
HIS 267 History of American Women from 1920 OR ............... (3)
HIS 265 History of Women in America ........................................ (3)
Electives (Selected from the following list or by consent of instructor) .............................................................6

Total Credits 12

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>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 233</td>
<td>Literature and Identities: (Sexuality &amp; Representation)</td>
</tr>
<tr>
<td>ENG 232</td>
<td>Literature and Place</td>
</tr>
<tr>
<td>ENG 234</td>
<td>Introduction to Women's Literature</td>
</tr>
<tr>
<td>FAM 253</td>
<td>Human Sexuality: Development, Behavior, and Attitudes</td>
</tr>
<tr>
<td>FLK 276</td>
<td>Introduction to Folk Studies</td>
</tr>
<tr>
<td>FLK 278</td>
<td>Cultural Diversity in the United States</td>
</tr>
<tr>
<td>GEO 160</td>
<td>Lands and Peoples of the Non-Western World</td>
</tr>
<tr>
<td>GEO 240</td>
<td>Geography and Gender</td>
</tr>
<tr>
<td>HIS 265</td>
<td>History of Women in America</td>
</tr>
<tr>
<td>HIS 266*</td>
<td>History of American Women to 1920*</td>
</tr>
<tr>
<td>HIS 267*</td>
<td>History of American Women from 1920*</td>
</tr>
<tr>
<td>HUM 121</td>
<td>Peace Studies</td>
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<tr>
<td>PHI 130</td>
<td>Ethics</td>
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<tr>
<td>PHI 110</td>
<td>Medical Ethics</td>
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<tr>
<td>REL 101</td>
<td>Introduction to Religious Studies</td>
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<td>SOC 235</td>
<td>Inequality in Society</td>
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<tr>
<td>SWK 275</td>
<td>The Family</td>
</tr>
<tr>
<td>WGS 200*</td>
<td>Introduction to Women's and Genders Studies in the Social Sciences</td>
</tr>
<tr>
<td>WGS 201*</td>
<td>Introduction to Women's and Gender Studies in the Arts and Humanities</td>
</tr>
</tbody>
</table>

Total Credits 12
Wood Manufacturing Technology

(Under Revision)

This diverse program is designed to provide broad-based training for entry-level employees in the secondary wood processing industry. Students are exposed to an array of tasks ranging from product design to installation of finished products including: furniture, cabinetry, and millwork.

Diploma

Wood Technologist - 4807034019
(Offered at JFC)

Required:
- CPU 100# Introduction to Computers .............................................. 3
- DFT 120 Computer Aided Drafting I OR ........................................ 4
- CAD 100 Introduction to Computer-Aided Design ................................. (3)
- EFM 100 Personal Financial Management ........................................... 3
- ISX 100 Industrial Safety ............................................................. 3
- Quantitative Reasoning ............................................................... 3
- WMT 110 Technical Drawing And Blueprint Reading .......................... 2
- WMT 120 Wood Product Manufacturing ........................................... 4
- WMT 160 Wood Finishing ............................................................. 2
- WMT 199 Cooperative Education OR ............................................... 2
- WMT 198 Practicum ..................................................................... (2)
- WMT 230 Introduction to Panel Processing ....................................... 2
- WMT 240 Cabinet Making Technology ............................................. 4
- WMT 250 Furniture Technology ...................................................... 4
- WMT 260 Millwork Technology ....................................................... 4
- WMT 280 Estimating ...................................................................... 2
- WPP 200 Workplace Principles ....................................................... 2
- All WMT Courses ................................................................. Variable Credit
- Intermediate Computer Aided Design .............................................. 4

Total Credits 27-28

Electives:

Total Credits 27-28

#This course does not meet computer/digital literacy requirements.

Certificates

Cabinetmaker - 4807033019
(Formerly 21st Century Life Skills)

Required:
- CPU 100 Introduction To Computers ............................................... 3
- DFT 120 Computer Aided Drafting I OR ........................................ 4
- CAD 100 Introduction to Computer-Aided Design ................................. (3)
- MAT 110 Applied Mathematics * ................................................... 3
- WMT 110 Technical Drawing And Blueprint Reading .......................... 2
- WMT 120 Wood Product Manufacturing ........................................... 4
- WMT 160 Wood Finishing ............................................................. 2
- WMT 230 Introduction to Panel Processing ....................................... 2
- WMT 240 Cabinet Making Technology ............................................. 4
- WMT 280 Estimating ...................................................................... 2
- Electives (Technical Course List) .................................................... 2

Total Credits 27-28

Technical Electives:

- All WMT Courses ................................................................. Variable Credit
- Intermediate Computer Aided Design .............................................. 4

Total Credits 27-28

*Curriculum committee is in process of changing mathematics requirements.

Workplace Essentials

(Formerly 21st Century Life Skills)

Certificate

Workplace Essentials - 3201073019
(Formerly 21st Century Life Skills)

The Workplace Essentials Certificate is designed to prepare students with the necessary skills for career, college, and life. Students will experience active learning components that lend themselves to overall well-grounded skills necessary to function more effectively as members of an increasingly interconnected world. Students will select a certificate focus track of Basic Skills, Intercultural Knowledge, Creative and Critical Thinking, Intellectual and Practical Skills, Personal and Social Responsibility, Integrative and Applied Learning, or Community Building and Engagement.

Basic Skills Track

Students will focus on basic skills development for career and life with emphasis on workplace and career principles, lifelong learning skills, and cultural topics.

Intercultural Knowledge Track

Students will focus on intercultural knowledge with emphasis on global communication, economics, and culture.
Creative and Critical Thinking Track
Students will focus on creative and critical thinking skills to enhance skill sets. Emphasis is directed at logic, creative tendencies, critical thinking, and problem solving.

Intellectual and Practical Skills Track
Students will focus on intellectual and practical skills with emphasis on inquiry and analysis, quantitative reasoning and information literacy, and problem solving.

Personal and Social Responsibility Track
Students will focus on personal and social responsibility skills with emphasis on civic knowledge and engagement, intercultural knowledge and competence, ethical reasoning and action, and foundation skills for lifelong learning.

Integrative and Applied Learning Track
Students will focus on integrative and applied learning skills with emphasis on synthesis and advanced accomplishment across general and specialized skills.

Community Building and Engagement Track
Students will focus on community building and engagement with emphasis on service learning, community development, conservation, and culture enhancement.

Core Courses
- Digital Literacy Course OR IC3 Fast Track Exam OR IC3 Certification ……………………………………….. 0-3
- COM 181 Basic Public Speaking OR …………………. 3
- COM 252 Introduction to Interpersonal Communication ….. (3)
- GEN 102 Foundations of Learning …………………. 3
- GEN 125 Applied Meta-Thinking ………………………. 3
- Focus on MetaThinking (listed below)………………………… 9-19
Total 18-31

Basic Skills Track - 320107301
(Offered at HZC, WKC)
- GEN 175 Career and Life Skills Development OR ………… 3
- WPP 200 Workplace Principles ………………….. (3)
- GEN 225 Lifelong Learning Applications …………………. 3
- Elective ………………………………………………….. 3
Total Track Credits 12

Intercultural Knowledge Track - 320107302
(Offered at HZC, WKC)
- COM 254 Introduction to Intercultural Communications ….. 3
- ECO 101 Contemporary Economic Issues OR …………….. 3
- ECO 150 Introduction to Global Economics ………………… (3)
- SOC 249 Mass Media and Mass Culture OR ………………… 3
- SOC 260 Population, Resources, and Change ………………… (3)
- Geography Course ………………………………………… 3
Total Track Credits 12

Creative and Critical Thinking Track - 320107303
(Offered at HZC, WKC)
- PHI 120 Introductory Logic ………………………………………. 3
- ENG 207 Creative Writing: Topic OR …………………. 3
- THA 101 Introduction to Theatre OR ………………… (3)
- ACH 194 Visual Composition OR ………………… (3)
- ENG 232 Literature and Place ……………………………… (3)
- CS 101 Introduction to Computer Science OR ………………… 3

Total Track Credits 9

Intellectual and Practical Skills Track - 320107304
(Offered at HZC, WKC)
- CS 101 Introduction to Computer Science OR ………………… 3
- MAT 150 College Algebra OR ……………………………………… (3)
- MAT 205 Mathematics for Elementary Teachers ………………… (3)
- GEN 130 Introduction to Information Resources ………………… 3
Total Track Credits 9

Personal and Social Responsibility Track - 320107305
(Offered at HZC, WKC)
- GEN 120 Service Learning ……………………………………… 3
- JOU 101 Introduction to Journalism OR ………………… 3
- PHI 130 Ethics OR ……………………………………… (3)
- PHI 150 Business Ethics ……………………………………… (3)
- GEN 225 Lifelong Learning Applications …………………. 3
- Cultural Studies Elective ……………………………………… 3
Total Track Credits 12

Integrative and Applied Learning Track - 320107306
(Offered at HZC, WKC)
- GEN 175 Career and Life Skills Development OR ………… 3
- WPP 200 Workplace Principles ………………….. (3)
- Geography Course ………………………………………… 3
- GEN 225 Lifelong Learning Applications …………………. 3
- Technical Program Courses ……………………………… 6
Total Track Credits 15

Community Building and Engagement Track - 320107307
(Offered at HZC, WKC)
- GEN 120 Service Learning ……………………………………… 3
- GEN 140 Development of Leadership ……………………… 3
- SOC 220 The Community ……………………………………… 3
- BIO 120 Human Ecology OR ……………………………… 3
- BIO 122 Introduction to Conservation Biology OR ……….. (3)
- ENV 110 Introduction to Conservation Biology ……………… (4)
- ENG 232 Literature and Place …………………………………… 3
- Heritage/Humanities Electives (Choose one from the list below) ……… 3
Total Track Credits 18-19

Creative and Critical Thinking Track - 320107303
(Offered at HZC, WKC)
- PHI 120 Introductory Logic ………………………………………. 3
- ENG 207 Creative Writing: Topic OR …………………. 3
- THA 101 Introduction to Theatre OR ………………… (3)
- ACH 194 Visual Composition OR ………………… (3)
- ENG 232 Literature and Place ……………………………… (3)
- CS 101 Introduction to Computer Science OR ………………… 3

Total Track Credits 9

Integrative and Applied Learning Track - 320107306
(Offered at HZC, WKC)
- GEN 175 Career and Life Skills Development OR ………… 3
- WPP 200 Workplace Principles ………………….. (3)
- Geography Course ………………………………………… 3
- GEN 225 Lifelong Learning Applications …………………. 3
- Technical Program Courses ……………………………… 6
Total Track Credits 15

Community Building and Engagement Track - 320107307
(Offered at HZC, WKC)
- GEN 120 Service Learning ……………………………………… 3
- GEN 140 Development of Leadership ……………………… 3
- SOC 220 The Community ……………………………………… 3
- BIO 120 Human Ecology OR ……………………………… 3
- BIO 122 Introduction to Conservation Biology OR ……….. (3)
- ENV 110 Introduction to Conservation Biology ……………… (4)
- ENG 232 Literature and Place …………………………………… 3
- Heritage/Humanities Electives (Choose one from the list below) ……… 3
Total Track Credits 18-19

Zoo Animal Technology
The Zoo Technology program prepares students for entry-level positions at zoos and related occupations. The curriculum gives students a background in writing, computer applications, communication skills, animal biology, conservation biology, applied mathematics, and basic zoo operations.
Associate in Fine Arts (A.F.A.) Curricula

Cinematic Arts

The Associate in Fine Arts (AFA) in 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 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 (including advanced lensing theory), digital media, and writing for film are required in the core. Studio courses are offered including screenwriting, digital media design, camera/lighting, audio/music for film, acting and editing. Students will focus on the application of new skills in the production of several finished short films in a project-based learning environment.

Due to the nature of the cinematic arts, multiple ways of understanding/collaborating 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 and for employment—worldwide—in this growing medium.

The Filmmaking: Script to Screen certificate program will provide students with a hands-on, practical overview of the filmmaking process. In addition to a working knowledge of the elements of filmmaking, graduates will have a greater understanding of the collaborative process, creative problem solving, and critical thinking. Graduates will have an enhanced level of media literacy and deeper understanding of filmmaking as a communication strategy for dissemination of ideas. The curriculum supports the desire of the film industry for a stronger filmmaking workforce in Kentucky.

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.
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 HCC, OW, WC)*

**General Education Core Requirements**

<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>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Heritage/Humanities (not including THA classes)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences with laboratory</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MA 109</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MA 111</td>
<td>Contemporary Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>Higher Level Quantitative Reasoning course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Theatre Core**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 101</td>
<td>Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THA 126</td>
<td>Fundamentals of Acting</td>
<td>3</td>
</tr>
<tr>
<td>THA 226</td>
<td>Acting II: Scene Study (Realism)</td>
<td>3</td>
</tr>
<tr>
<td>THA 227</td>
<td>Acting III: Scene Study (Styles)</td>
<td>3</td>
</tr>
<tr>
<td>THA 260</td>
<td>Stagecraft</td>
<td>3</td>
</tr>
</tbody>
</table>

A student must pass an approved three (3) credit hour computer/digital literacy course unless the computer competency exam is successfully completed.

**Practicum Core**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 190</td>
<td>Production Practicum (May be repeated)</td>
<td>3</td>
</tr>
<tr>
<td>THA 191</td>
<td>Performance Practicum (May be repeated) to equal 3 hours, OR</td>
<td>3</td>
</tr>
<tr>
<td>TA 195</td>
<td>Special Projects in Theatre Arts (Project Title) OR</td>
<td>3</td>
</tr>
<tr>
<td>THA 196</td>
<td>Summer Theatre Workshop</td>
<td>3</td>
</tr>
</tbody>
</table>

**Concentration (Choose 18 hours from the Approved Theatre Electives)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 127</td>
<td>Acting Techniques</td>
<td>3</td>
</tr>
<tr>
<td>THA 150</td>
<td>Fundamentals of Production</td>
<td>3</td>
</tr>
<tr>
<td>THA 200</td>
<td>Introduction to Dramatic Literature</td>
<td>3</td>
</tr>
<tr>
<td>THA 283</td>
<td>American Theatre</td>
<td>3</td>
</tr>
<tr>
<td>FLM 110</td>
<td>Filmmaking: Treatment through Storyboard</td>
<td>4</td>
</tr>
<tr>
<td>FLM 120</td>
<td>Filmmaking: Storyboard through Production</td>
<td>4</td>
</tr>
<tr>
<td>FLM 130</td>
<td>Filmmaking: Editing through Distribution</td>
<td>4</td>
</tr>
</tbody>
</table>

(FLM courses are co-requisites)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS 192</td>
<td>University Chorus</td>
<td>1</td>
</tr>
<tr>
<td>ART 110</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 281</td>
<td>Introduction to Film</td>
<td>3</td>
</tr>
<tr>
<td>ENG 282</td>
<td>International Film Studies</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250</td>
<td>Digital Video Editing Final Cut</td>
<td>3</td>
</tr>
<tr>
<td>Other Courses approved by program coordinator</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Summary**

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</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>

**Fine Arts Core (Visual Art track)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 105</td>
<td>Ancient through Medieval Art History</td>
<td>3</td>
</tr>
<tr>
<td>ART 106</td>
<td>Renaissance through Modern Art History</td>
<td>3</td>
</tr>
<tr>
<td>ART 110</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 112</td>
<td>2-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 113</td>
<td>3-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 210</td>
<td>Drawing II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Concentration (Choose 18 hours from the Approved Art Studio Electives)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 211</td>
<td>Life Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 220</td>
<td>Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 221</td>
<td>Painting II</td>
<td>3</td>
</tr>
<tr>
<td>ART 240</td>
<td>Ceramics I</td>
<td>3</td>
</tr>
<tr>
<td>ART 241</td>
<td>Ceramics II</td>
<td>3</td>
</tr>
<tr>
<td>ART 260</td>
<td>Sculpture I</td>
<td>3</td>
</tr>
<tr>
<td>ART 261</td>
<td>Sculpture II</td>
<td>3</td>
</tr>
<tr>
<td>ART 270</td>
<td>Printing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 271</td>
<td>Printing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 280</td>
<td>Beginning Film Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 281</td>
<td>Digital Photography I</td>
<td>3</td>
</tr>
<tr>
<td>ART 282</td>
<td>Digital Photography II</td>
<td>3</td>
</tr>
<tr>
<td>ART 290</td>
<td>Survival Skills for Artists</td>
<td>3</td>
</tr>
<tr>
<td>ART 299</td>
<td>Directed Studies in Art</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 231</td>
<td>Jewelry/Metals I</td>
<td>3</td>
</tr>
<tr>
<td>ART 232</td>
<td>Jewelry/Metals II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Summary**

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</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 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.
### Course Descriptions

**Course prefix/number arranged alphabetically. The course number will appear as 101 ENG on transcripts, student schedules and web-based documents.**

**Course Title**

ENG 101 (3) Writing I
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.

- **Components:** Lecture
- **Attributes:** WC - Written Communication
- **Campus:** BLC
- **Course ID:** 000467

**Course Credit. Variable credit is shown as (1-3).**

**Unique course identification**

**Component:**
- Course may be offered only by identified campus.
- Attributes: Indicates the general education category and tag of the course, if applicable.

**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 character course numbers 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 Art & 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

#### AAD Arts Administration

**AAD 200 (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

#### 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).

- **Components:** Lecture

**ACC 2021 (1) Course ID: 005949**

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).

- **Components:** Lecture

**ACC 2022 (1) Course ID: 005950**

Planning and Control
Presents performance evaluation, and methods of financial statement analysis. Prerequisite: ACC 2202. Lecture: 1 credit (15 contact hours).

- **Components:** Lecture

**ACC 2023 (1) Course ID: 005951**

Using Cost Data in Decision Making
Introduces the student to master and capital budgets. Prerequisite: ACC 2202. Lecture: 1 credit (15 contact hours).

- **Components:** Lecture

#### ACH Architecture

**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

**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

**ACH 120 (3) Course ID: 004681**

Theory and History of Architecture I
The development of architecture as it is related to world

221
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 further develop 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

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

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

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

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

ACH 180 (1 - 3) Course ID: 005463
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

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, model construction and creative writing. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (120 contact hours).
Components: Laboratory, Lecture

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

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 185/ACH 195 or consent of instructor.
Components: Laboratory, Lecture

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

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

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 projects are prepared by students with the goal 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

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

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

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

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 credits (45 contact hours).
Components: Lecture

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

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

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

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 credits (45 contact hours).
Components: Lecture

ACH 297 (3) Course ID: 004699
Estimating Techniques
Students investigate the factors affecting the cost of construction, 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

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

ACH 195 (3) Course ID: 004682
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 101. Lecture: 3 credits (45 contact hours).
Components: Laboratory

ACH 100 (3) Course ID: 000949
HVAC 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

ACH 101 (2) Course ID: 000950
HVAC 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

ACH 102 (3) Course ID: 000951
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

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

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

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

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

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

ACR 198 (2) Course ID:000958
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

ACR 199 (2) Course ID:000959
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

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

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

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

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 performing 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

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: 4.0 credits (75 contact hours)

Components: Lecture

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, 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

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

ACR 225 (3) Course ID:000963
Cooling and Dehumidification Lab
Explain working characteristics of air conditioning units with air and water cooled condensers. Covers line, low voltage and pneumatic controls. Prerequisite: (ACR 100 & ACR 101) with a grade of C or greater. Corequisite: ACR 225. Lecture: 3 credits (45 contact hours).

Components: Lecture

ACR 226 (3) Course ID:000965
Heating and Humidification Lab
Explains heating systems from simple fossil fuel furnaces through more complex systems. Concentrates on line and control voltage circuitry pertaining to these systems. Prerequisite: (ACR 102 and ACR 103) with a grade of C or greater. Corequisite: ACR 226. Lecture: 3 credits (45 contact hours).

Components: Lecture

ACR 250 (5) Course ID:000966
Heating and Humidification Lab
Provides lab time for application of troubleshooting, checking, adjusting, and installing heating units currently in use. Prerequisite: (ACR 102 and ACR 103) with a grade of C or greater. Corequisite: ACR 260. Laboratory: 3 credits (90 contact hours).

Components: Laboratory

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: Lecture

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

ACR 291 (3) Course ID:000970
Special Problems I
A course designed for the student who has demonstrated specific special needs. Prerequisite: Permission of Instructor.

Components: Laboratory

ACR 292 (3) Course ID:000971
Special Problems II
A course designed for the student who has demonstrated specific special needs. Prerequisite: Permission of Instructor.

Components: Laboratory

ACR 295 (3) Course ID:000972
Special Problems III
A course designed for the student who has demonstrated specific special needs. Prerequisite: Permission of Instructor.

Components: Laboratory

ACR 298 (2) Course ID:000973
Special Problems
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

ACR 299 (2) Course ID:000974
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

ACT Accounting

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
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

ACT 177 (3) Course ID:0005238
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

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

ACT 277 (3) Course ID:000008
Managerial Accounting Topics
The study of the uses of accounting information in managerial planning and control of organizations. Prerequisite: ACC 202. Lecture: 3 credits (45 contact hours).
Components: Lecture

ACT 279 (3) Course ID:000010
Computerized Accounting Systems
Accounting concepts and principles are applied using computerized accounting systems. Lecture: 3 credits (45 contact hours). Prerequisite: ACC 201 or ACT 101 and ACT 102 or concurrent enrollment in ACT 102. Computer literacy 3 credit hours.
Components: Lecture

ACT 281 (3) Course ID:000013
Individual Taxation
The study of the theory and applications of federal and individual income taxes will be emphasized. Lecture: 3 hours. Prerequisite: One semester of college accounting or consent of instructor.
Components: Lecture

ACT 286 (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. Prerequisite: ACC 201 or ACT 101 and ACT 102. Lecture: 3 credits (45 contact hours).
Components: Lecture

ACT 290 (1 - 3) Course ID:000015
Selected Topics in Accounting: (Topic)
This course is designed to expand course offerings as new technology is developed, new issues evolve and/or to address local accounting issues. Topics may vary from semester to semester at the discretion of the instructor; courses may be repeated with different topics to a maximum of six credit hours. Lecture: 1-3 hours. Prerequisite: Consent of instructor.
Components: Lecture

ACT 295 (3) Course ID:000016
Corporate and Partnership Taxation
Emphasizes the study of federal and state tax laws applying to corporations, partnerships, and other entities. Prerequisite: ACT 281 or consent of instructor. Lecture 3.0 credits (45 contact hours).
Components: Lecture

ACT 1771 (0.6) Course ID:0005239
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

ACT 1772 (0.6) Course ID:0005240
Contractual and Legal Reporting Requirements
Common contractual and legal reporting requirements.
Components: Lecture

ACT 1773 (0.6) Course ID:0005241
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:0005242
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 instructor.
Components: Lecture

ACT 1775 (0.6) Course ID:0005243
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 1961 (0.5)
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 1962 (0.5)
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 1963 (0.5)
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 1964 (1)
Manual Payroll
Requires the student to complete a Quarterly Payroll Simulation. Prerequisite: ACT 1962 & 1963. Lecture: 1 credit (15 contact hours).
Components: Lecture

ACT 1965 (0.5)
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

ADX 120 (3) Course ID:0000983
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. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

ADX 121 (2) Course ID:0000984
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. Pre-requisite or Corequisite: ADX 120. Lab: 2.0 credits (90 contact hours).
Components: Laboratory

ADX 150 (3) Course ID:0000985
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

ADX 151 (2) Course ID:0000986
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

ADX 170 (3) Course ID:0000987
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. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

ADX 171 (1) Course ID:0000988
Climate Control Lab
Provides opportunities to trouble shoot, repair and perform maintenance on heating and air conditioning systems. Provides experiences in safety precautions, special tools, user component, operation and how to service and trouble shoot the complete system. 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 170. Lab: 1.0 credit (45 contact hours).
Components: Laboratory

ADX 260 (3) Course ID:0000989
Electrical Systems
Focuses on the theory and principles relating to automotive electrical/electronic components. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

ADX 261 (2) Course ID:0000990
Electrical Systems Lab
Provides practical applications and experiences related to the theory and principles of automotive electrical/electronic components. Prerequisite: 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 260. Lab: 2.0 credits (90 contact hours).
Components: Laboratory

AER Aeronautics

ADX Aeronautics

ADX Automotive Technology

ADX 120 (3) Course ID:0000983
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. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

ADX 121 (2) Course ID:0000984
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. Pre-requisite or Corequisite: ADX 120. Lab: 2.0 credits (90 contact hours).
Components: Laboratory

AET Applied Engineering Technology

AET 100 (1) Course ID:0006358
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

AER Aeronautics

AER 110 (3) Course ID:0006516
Fundamentals of Aerodynamics/Private Pilot Ground School
Covers the fundamentals of aerodynamics aircraft systems, aeronautical decision 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
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

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 configuration, analysis, and troubleshooting. Corequisite: MT 125 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture

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

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 (90 contact hours).
Components: Lecture

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 (60 contact hours).
Components: Lecture

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 (60 contact hours).
Components: Lecture

AET 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 safety working practices. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture

AET 150 (4) Course ID:006366
Advanced Circuit Analysis
Introduces the more advanced concepts of DC and AC circuits. Topics include Kirchoff's Laws, network theorems, Delta-\pi 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

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

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, bistable circuits, and basic arithmetic circuits. Prerequisite: AET 110 or consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture

AET 180 (3) Course ID:006389
Industrial Computer Architecture
Introduces the basic layout of industrial computers as preparatory course leading into the more advanced PLCs; 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

AET 190 (4) Course ID:006370
Industrial Computer Programming Concepts
Covers programming concepts specifically directed toward industrial programmable devices such as PLCs. Prerequisite: Consent of instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture

AET 200 (4) Course ID:006371
Integrated Circuits
Focuses on integrated circuits as they apply to linear and non-linear applications to include integration techniques, operational amplifiers, linear voltage amplifiers, waveform generators, comparators, active filters, and interfacing. Prerequisite: AET 150 or Consent of Instructor. Lecture/ Lab: 4 credits (75 contact hours).
Components: Lecture

AET 210 (4) Course ID:006372
Alternative Energy Independent Studies
Provides the student with the opportunity to put to practical use, by way of a student project, the knowledge and skills gained in AET 102, AET 112, AET 114, and AET 120. Prerequisite: AET 112 and AET 114 and AET 120. Lecture/ Lab: 4 credits (105 contact hours).
Components: Lecture

AET 220 (4) Course ID:006373
Modulation Techniques and Applications
Introduces the various types of electronic modulation including amplitude, frequency, and phase modulation with emphasis on antenna theory and the study of RF power in both resonant and non-resonant loads. Prerequisite: AET 200 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture

AET 230 (3) Course ID:006374
Introduction to Circuit Design
Utilizes ideas learned in previous electronics courses to design, build, and test circuits based upon design criteria provided by the instructor. Prerequisite: [AET 170 and AET 200] or Consent of Instructor. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture

AET 240 (4) Course ID:006375
Industrial Machinery Control
Examines AC and DC circuits and their associated control equipment. Introduces ladder logic and schematic diagram interpretation and drawing. Gives the student practical experience in the design, construction and troubleshooting of industrial motor control circuits. Advances the use of solid state devices and system integration. Prerequisite: AET 110. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture

AET 250 (4) Course ID:006376
PLC Networking
Introduces the basic concepts in PLC networking to include networking protocols specific to industrial controllers. ASCII codes, bus topologies, and handling of remote I/O. Prerequisite: AET 190. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture

AET 260 (4) Course ID:006377
Robotics and Programmable Controls
Introduces the theory of robots and programmable controls including terminology, components, and basic programming; provides theory of servo and non-servo robots and their controllers. Prerequisite: Consent of instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture

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 register and sequencer instructions; binary, octal and hexadecimal number systems; and analog inputs and outputs. Prerequisite: EET 276 and EET 277. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture

AFS 111 (1) Course ID:005359
Aerospace Studies I
A course designed to provide the student with a basic understanding of the nature and principles of war, national power, and the Department of Defense role in the organization of national security. The student also develops leadership abilities by participating in a military organization, the cadet corps, which offers a wide variety of situations demanding effective leadership. Corequisite: AFS 112. Lecture: 1 credit (15 contact hours).
Components: Laboratory

AFS 112 (1) Course ID:005360
Leadership Laboratory I
A course designed for development of basic skills required to be a manager, including communications, human relations, and administration of equal opportunity. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Corequisite: AFS 111. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

AFS 113 (1) Course ID:005361
Aerospace Studies II
A course designed to provide the student with a basic understanding of the contribution of aerospace power to the total U.S. strategic offensive and defensive military posture. The student also develops leadership abilities by participating in a military organization, the cadet corps, which offers a wide variety of situations demanding effective leadership. Prerequisite: AFS 111. Lecture: 1 credit (15 contact hours).
Components: Laboratory

AFS 114 (1) Course ID:005362
Leadership Laboratory II
A continuation of AFS 113. A course designed to develop managerial skills including superior/subordinate relationships, communications, customs and courtesies, basic drill movements and career progression requirements. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Corequisite: AFS 113. Laboratory: 1 credit (45 contact hours).
Components: Lecture

AFS 211 (1) Course ID:005222
Aerospace Studies III
Introduces the study of air power from a historical perspective; focuses on the development of air power into a primary element of national security. Leadership experience is continued through active participation in the cadet corps. Prerequisite: AFS 111, 113 or PAS approval. Lecture, 1 hour; leadership, laboratory, one hour.
Components: Lecture

AFS 212 (1) Course ID:005223
Leadership Laboratory III
A course designed for development of advanced skills required to be a manager/leader, including leadership studies, public speaking, group dynamics, motivation and preparation for field training. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Corequisite: AFS 211.
Components: Laboratory
AHS 100 (2) 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
AHS 105 (3) 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-solving are included. Lecture: 2.5 hours; Laboratory: 2 hours.
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules
AHS 109 (4) 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 an understanding of health maintenance. Not intended as a general education science course. Lecture: 4 credits (60 contact hours).
Components: Lecture
AHS 115 (3) Course ID:003808
Medical Terminology
A study of anatomy, physiological and pathological terminology with emphasis on work 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
AHS 120 (1) Course ID:001517
Medical Terminology
Basic medical word techniques emphasizing anatomical, physiological and medical terms. Lecture: 1 credit (15 contact hours).
Components: Lecture
AHS 125 (3)  
**Course ID:005758**

Health Careers Exploration  
Introduces a variety of occupational opportunities in healthcare and an overview of educational and basic healthcare employment requirements. Includes an observation in the healthcare setting. Prerequisite: AHS 105. Lecture: 2 hours; Lab: 1 credit (30:1 ratio)  
**Components:** Laboratory, Lecture

AHS 130 (2)  
**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

AHS 140 (3)  
**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

AHS 201 (3)  
**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

AHS 203 (3)  
**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 the delivery of care and the representation of 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

**AIT Advanced Integrated Technology**

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). (30:1 Ratio Lab).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules

AIT 110 (3)  
**Course ID:005956**

Power Distribution Systems  
Provides instruction in the use of hydraulic, electric, and pneumatic power as they apply in industry. Covers AC/DC circuit analysis, single-phase and three-phase power including hydraulic and pneumatic power and basic principles of pressure and flow. Prerequisite: AIT 100 or consent of instructor. Lecture/Lab: 3 credits (67.5 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules

AIT 120 (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, controls, and various lifting and rigging techniques. Prerequisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 3 credits (75 contact hours). (30:1 Ratio Lab).  
**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). (30:1 Ratio).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules

AIT 135 (3)  
**Course ID:007384**

Industrial Refrigeration I  
Introduces 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:** Course Also Offered in Modules

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 assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 1 credit (15 contact hours).  
**Components:** Lecture

AIT 170 (3)  
**Course ID:005962**

Equipment Maintenance  
Introduces the student to maintenance techniques and procedures used to maintain industrial equipment including lubrication and troubleshooting. Examines power transmission methods such as V-belt drives, shaft drives, couplings, gear reducers, chain drives, bearings, and seals. Focuses on use of hand tools and precision measuring instruments to remove and replace bearings and seals, and perform shaft alignment. Prerequisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 3 credits (75 contact hours). (30:1 Ratio Lab).  
**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). (30:1 Ratio Lab).  
**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 exam 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. Prerequisite: AIT 190 or Consent of Instructor. Lecture: 3.0 (45 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules

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 Electrical Institute Examination. Pre-requisite: AIT 220 or Consent of Instructor. Lecture: 3.0 (45 contact hours).  
**Components:** Lecture  
**Attributes:** Course Also Offered in Modules

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 credits (45 contact hours).  
**Components:** Lecture

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 020. Lecture: 4.0 credits (60 contact hours).  
**Components:** Lecture

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

AIT 260 (4)  
**Course ID:006575**

Application of the National Electrical Code for Special Circuits  
Applies articles of National Electrical Code to special occupancies, equipment, conditions, and communications. Pre-requisite: AIT 240 or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).  
**Components:** Lecture

AIT 270 (2)  
**Course ID:006942**

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
A1T 290 (0.1 - 5) Course ID:005955
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

A1T 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: A1T 1501 or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture

A1T 1001 (2) Course ID:006150
Basic Electrical Knowledge
Introduces electrical power systems used in industry. Provides introductory theory and application of AC/DC 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

A1T 1002 (1) Course ID:006151
Power Development
Introduces electrical power systems used in industrial settings, including basic theory and application of DC generators, alternating currents, and electric motors. 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 (22.5 contact hours).
Components: Lecture

A1T 1003 (1) 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 A1T 1001 or consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

A1T 1101 (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: A1T 100 or consent of instructor. Lecture/Lab: 1.0 credits (22.5 contact hours).
Components: Lecture

A1T 1102 (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 exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses; or A1T 1101; or consent of instructor. Lecture/Lab: 2.0 credit (45 contact hours).
Components: Lecture

A1T 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

A1T 1202 (1) Course ID:006156
Piping, Hydraulic, & Pneumatic, & Installation
Focuses on the installation of pneumatic industrial systems, including interpretation of drawings and diagrams, fabrication of pipe and piping fittings, pneumatic supply lines, piping safety, and pipe installation for pneumatic systems. Prerequisite: A1T 1201 or consent of instructor. Lecture/Lab: 1 credit (25 contact hours).
Components: Lecture

A1T 1203 (1) Course ID:006157
Mechanical Installation
Incorporates equipment selection, motor mounting, speed, torque, power measurement, and various installation 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

A1T 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

A1T 1302 (2) Course ID:006159
Integrated Process Control
Introduces 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

A1T 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: A1T 100 or A1T 1001 or Consent of instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

A1T 1402 (1) Course ID:006161
Basic Pneumatic Controls
Introduces the student to pneumatic speed control circuits. Uses air pressure regulators and flow controls to obtain cylinder speeds. Prerequisite: A1T 100 or A1T 1003 or Consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

A1T 1403 (1) Course ID:006162
Hydraulic/ Pneumatic Controls
Provides instruction in the integrated application of hydraulic speed and pressure control circuit analysis, hydraulic and pneumatic circuits including pumps, valves, cylinders, and motors. Prerequisite: A1T 100 or A1T 1003 or Consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

A1T 1501 (2) Course ID:006163
Intermediate Electrical Controls
Provides instruction in the integrated application of advanced electrical controls for electrical systems. Emphasizes variable frequency drives, proximity sensors, SCR speed controls. Prerequisite: A1T 140 or A1T 1401 or Consent of instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

A1T 1502 (1) Course ID:006164
Intermediate Pneumatic Controls
Provides instruction in the integrated application of advanced industrial controls for pneumatic systems. Emphasizes pneumatic logic circuits. Prerequisite: A1T 140 or A1T 1402 or Consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

A1T 1503 (1) Course ID:006165
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: A1T 140 or A1T 1403 or Consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

A1T 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 courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

A1T 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

A1T 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

A1T 2001 (2) Course ID:006167
Integrated Process Management
Emphasizes project team organization. Introduces the following concepts: cycle time, production time, first pass yield, and barrier identificationPrerequisite: A1T 130 or Consent of Instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

A1T 2002 (2) Course ID:006168
Quality Control and SPC
Introduces quality control including understanding acceptance criteria with tolerances, data collection, and data reporting. Prerequisite: A1T 130 or Consent of Instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

A1T 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 credit (22.5 contact hours).
Components: Lecture

A1T 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
AII 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

AII 2701 (1) Course ID:006943
Introduction to PLCs
Examines fundamental architecture of programmable logic controllers as it pertains to industrial applications and incorporates ladder logic principles, commonly used instruction language, editing, program navigation and program analysis. Pre-requisite: AII 1501 or Consent of Instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Lecture
Campus: MDC

AII 2702 (1) Course ID:006944
Introduction to Robotics
Investigates underlying principles, applications and fundamentals of 6-axis robotics including manual manipulation, execution of existing robotic program file, modification of target parameters, and safety interlocks. Pre-requisite: AII 2701. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Lecture
Campus: MDC

AMS American Military Studies

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 responsibilities of the Army within our society. The course also covers some of the basic skills necessary for today's leaders to include oral presentation, time management, map reading, basic rifle marksmanship and squad tactics.
Components: Lecture

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

AMS 211 (2) Course ID:004854
Advanced Leadership
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

AMS 250 (1) Course ID:005380
Basic Military Science Lab
A hands-on practical 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

ANA Anatomy

ANA 209 (3) Course ID:004701
Principles of Human Anatomy
The structure of the human body will be examined at various levels: cellular, tissues and organ systems. The gross anatomical arrangement of the body will be studied in a system-by-system format relating structure to function and the fundamentals of human embryology/malformation with adult anatomy. The central nervous system will be emphasized. Prerequisite: Introductory biology or zoology. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

ANT Anthropology

ANT 101 (3) Course ID:004855
Introduction to Anthropology
Introduces the student to the study of human cultures, past and present. Offers a comprehensive introduction to anthropology, emphasizing the concepts and methods of the major sub-disciplines, cultural, biological, archaeology, and linguistics. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, SB - Anthropology

ANT 130 (3) Course ID:000044
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
Course Equivalents: REL 130
Attributes: Cultural Studies, AH - Arts and Humanities, AH - Humanities, Social Behavior Science, SB - Social Behavior Science

ANT 160 (3) Course ID:002204
Cultural Diversity in the Modern World
Introduces the student to the diversity of human cultural experience in the contemporary world. Focuses on gaining an appreciation for the common humanity and uniqueness of all cultures; creating sensitivity toward stereotyping and ethnocentrism, and understanding the distinctions between 'race,' ethnicity and racism. Features extended descriptions of the cultural dynamics of the culture(s) with which the instructor has worked. Directed at non-majors.
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science, SB - Anthropology

ANT 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. Prerequisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of developmental reading courses.
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science, SB - Anthropology

ANT 221 (3) Course ID:002196
Origins of Old World Civilization
Surveys cultural developments in the Old World from the earliest times to the beginning stages of civilization.
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science, SB - Anthropology

ANT 240 (3) Course ID:000046
Origins of New World Civilization
Surveys the origin and growth of historic Native American cultures as revealed by archaeological data.
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science, SB - Anthropology

APS Apprenticeship Studies

APS 201 (20 - 40)
Apprenticeship Studies
Complements 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). Prerequisites: Completion of national/state certified apprenticeship program. Lecture/Lab: 20-40 credit hours (144 contact hours).
Components: Lecture

APT Applied Process Technology

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

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
APT 106 (2)  Course ID:004538
Process Chemistry
Prereq: APT 108 with a grade of C or greater or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture

APT 108 (2)  Course ID:004539
Stationary Equipment
Prereq: APT 108 with a grade of C or greater or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture

APT 142 (4)  Course ID:004541
Instrumentation
Prereq: APT 108 with a grade of C or greater OR Instructor Consent. Lecture/Lab: 4.0 credits (105 contact hours).
Components: Lecture, Laboratory

APT 144 (4)  Course ID:004542
Process Operations
Prereq: APT 108 with a grade of C or greater or Instructor Consent. Lecture: 4.0 credits (105 contact hours).
Components: Lecture

APT 146 (2)  Course ID:004543
Process Applications
Prereq: APT 108 with a grade of C or greater or Instructor Consent. Lecture: 2 credits (30 contact hours).
Components: Lecture

APT 148 (2)  Course ID:004544
Process Operation Safety
Prereq: APT 108 with a grade of C or greater or Instructor Consent. Lecture: 2 credits (30 contact hours).
Components: Lecture

APT 154 (6)  Course ID:005336
Power Plant Practice
Prereq: APT 108 with a grade of C or greater or Instructor Consent. Lecture: 6 credits (75 contact hours).
Components: Lecture, Laboratory, Lecture/Lab

APT 156 (2)  Course ID:005337
Power Plant Protection
Prereq: APT 108 with a grade of C or greater. Lecture: 2 credits (30 contact hours).
Components: Laboratory, Lecture

APT 158 (3)  Course ID:005510
Lineman Technology I
Prereq: APT 108 with a grade of C or greater. Lecture: 3 credits (45 contact hours).
Components: Lecture

APT 159 (4)  Course ID:005511
Lineman Technology I Lab
Prereq: APT 108 with a grade of C or greater. Laboratory: 4 credits (240 contact hours).
Components: Laboratory

APT 202 (3)  Course ID:004545
Federally Mandated Training
Prereq: APT 108 with a grade of C or greater. Lecture: 3 credits (90 contact hours).
Components: Lecture

APT 204 (1)  Course ID:004546
Safety Skills Training
Prereq: Instructor Consent. Lecture/Lab: 1 credit (60 contact hours/60:1 ratio).
Components: Lecture

APT 285 (3)  Course ID:005512
Lineman Technology II
Prereq: APT 158, APT 159. Lecture: 3 credits (45 contact hours).
Components: Lecture

APT 293 (4)  Course ID:005513
Lineman Technology II Lab
Prereq: APT 158. Laboratory: 4 credits (240 contact hours).
Components: Laboratory

ARI 10 (3)  Course ID:003861
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.
Components: Lecture

ARI 20 (3)  Course ID:003844
Remedial Reading
This course is designed to assist students who have demonstrated specific needs in the area of reading. Students are provided individualized or small group instruction. This course includes, but is not limited to, vocabulary improvement and reading comprehension skills improvement. This course may be repeated one time.
Components: Lecture

ARI 30 (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.
Components: Lecture
Course Descriptions

ART 100 (3) Course ID:000049
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.
Components: Lecture
Attributes: AH - Arts and Humanities, AH - Humanities

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, AH - Humanities

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).
Components: Lecture
Attributes: AH - Arts and Humanities, AH - 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).
Components: Lecture
Attributes: AH - Arts and Humanities, AH - 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

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

ART 113 (3) Course ID:004112
3-Dimensional Design
Investigates three-dimensional form and spatial design, including line, plane, mass, surface and structure. Includes the study of various materials, tools, and sculptural techniques. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture

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
Campus: MYC

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, AH - 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: AH - Arts and Humanities, AH - Humanities

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, AH - 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, AH - Humanities

ART 208 (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 208 satisfies the state art requirement for general elementary teacher requirement certification (4 hours of field work required). Lecture: 1 hour; Laboratory: 2 hours.
Components: Lecture, Laboratory

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

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

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

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

ART 231 (3) Course ID:007075
Jewelry/Metals I
Introduces the aesthetic and technical issues relating to basic metalmaking 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
Campus: WKCTC

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 hours (90 contact hours).
Components: Lecture
Campus: WKCTC

ART 240 (3) Course ID:000417
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

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

ART 245 (3) Course ID:000050
Beginning Ceramics
Introduction to ceramic forms in hand-building, wheel throwing, glazing, and decorative techniques. A major objective is to expose students to traditional techniques and historical perspectives of claywork along with contemporary approaches.
Components: Laboratory, Lecture
Campus: MYC

231
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, ART130. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture

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

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

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

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

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

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

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 299 (1 - 3) Course ID:006214
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

ART 1001 (1) Course ID:007381
Art Theory and Design
Provides a basic overview of art theory, philosophy, elements, and principles of design. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ART 1002 (1) 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 1003 (1) 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 Animal Sciences
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 live 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.
Components: Lecture

ASC American Sign Language
ASC 101 (3) Course ID:000573
American Sign Language I
A functional-interpretive 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 credit (15 contact hours).
Components: Laboratory, Lecture
Attributes: AH - Foreign Language, University Course (Eastern Kentucky University) Campus: BLC

ASC 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: ASC 101 with a minimum grade of C or permission of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 0 credit (15 contact hours).
Components: Laboratory, Lecture
Attributes: AH - Foreign Language, University Course (Eastern Kentucky University) Campus: BLC

ASC 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: ASC 102 with a minimum grade of C or permission of instructor.
Components: Laboratory, Lecture
Attributes: AH - Foreign Language, University Course (Eastern Kentucky University)
Campus: BLC

AST American Sign Language
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: MT065 and ENC091or 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

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: (MT120 or MT122 ) or a minimum ACT math score of 18. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

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: AST101 or AST191 or AST192; MT 120 or two years of high school algebra; or consent of the instructor.
Components: Laboratory
Attributes: SL - Science Laboratory
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE 100 (1)</td>
<td>Aviation Math</td>
<td>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).</td>
<td></td>
<td>1.0 credits</td>
</tr>
<tr>
<td>ATE 104 (3)</td>
<td>Introduction to Aircraft Maintenance II</td>
<td>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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 106 (3)</td>
<td>Introduction to Aircraft Maintenance III</td>
<td>Provides instruction in reading and interpretation of basic industrial and aircraft blueprints, 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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 108 (3)</td>
<td>Introduction to Aircraft Maintenance IV</td>
<td>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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 202 (3)</td>
<td>Aircraft Structures I</td>
<td>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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 206 (3)</td>
<td>Aircraft Structures III</td>
<td>Includes inspection of airframes to determine airworthiness. Covers the methods and techniques used in the assembly of subunits and 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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 208 (3)</td>
<td>Aircraft Structures IV</td>
<td>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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 222 (3)</td>
<td>Aircraft Systems I</td>
<td>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 system. 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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 224 (3)</td>
<td>Aircraft Systems II</td>
<td>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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 226 (3)</td>
<td>Aircraft Systems III</td>
<td>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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 228 (3)</td>
<td>Aircraft Systems IV</td>
<td>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 instruments. Provides for the inspection, checking and servicing of speed and take-off warning systems, electrical brake controls, anti-skid 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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 242 (3)</td>
<td>Aircraft Powerplants I</td>
<td>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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 244 (3)</td>
<td>Aircraft Powerplants II</td>
<td>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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 246 (3)</td>
<td>Aircraft Powerplants III</td>
<td>Covers construction, repair and overhaul 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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 252 (3)</td>
<td>Aircraft Powerplant Systems I</td>
<td>Covers the repair of hydraulic and pneumatic power systems; 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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 254 (3)</td>
<td>Aircraft Powerplant Systems II</td>
<td>Covers the operation and inspection of lift and control systems; 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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 256 (3)</td>
<td>Aircraft Powerplant Systems III</td>
<td>Covers 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 inspection and 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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 258 (3)</td>
<td>Aircraft Powerplant Systems IV</td>
<td>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 fuel flow and fueling 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.</td>
<td></td>
<td>3.0 credits</td>
</tr>
<tr>
<td>ATE 292 (3)</td>
<td>Introduction To Aviation Electronics</td>
<td>Provides instruction in basic to intermediate electronics and specifically how they relate to aviation maintenance technology. Lecture: 3.0 credit hours (45 contact hours).</td>
<td></td>
<td>3.0 credits</td>
</tr>
</tbody>
</table>
AUT 142 (3) Course ID:001056
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

AUT 180 (3) Course ID:001060
Automatic Transmission/Transaxle Lab
Involves the study of the operating principles of rear and front wheel drive automatic transmissions and transaxles and the testing and diagnostic process. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

AUT 181 (2) Course ID:001061
Computer Control Systems and Diagnosis Lab
Develops diagnostic and repair skills related to the operation 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

AUT 198 (1) Course ID:001062
Practicum
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: Practicum

AUT 240 (3) Course ID:001064
Computer Control Systems and Diagnosis
Presents 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

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

AUT 276 (2) Course ID:006890
Hybrid and Electric Vehicle Technology Lab
Focuses on the theories, principles, and diagnosis relating to hybrid automobiles. Pre-requisite: ADX 120/121, ADX 150/151, AUT 140/141, AUT 142/143. Co-requisite: AUT 275. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
**BAS Business Administration Systems**

**BAS 120 (3) Course ID:000095**  
*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. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Course Also Offered in Modules

**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 285 (3) Course ID:000113**  
*Problems in Marketing and Management*  
Demonstrates knowledge of theories and techniques in marketing and management 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. Prerequisite: (BAS 282 and BAS 283) or prior supervisory experience. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Course Also Offered in Modules

**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: Course Also Offered in Modules

**BAS 155 (3) Course ID:000100**  
*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: Course Also Offered in Modules

**BAS 285 (3) Course ID:000101**  
*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

**BAS 225 (3) Course ID:000094**  
*Entrepreneurship*  
Examines retail structure, merchandising, promotions, and the 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: Course Also Offered in Modules

**BAS 160 (3) Course ID:000101**  
*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

**BAS 170 (3) Course ID:005244**  
*Entrepreneurship*  
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

**BAS 200 (3) Course ID:000104**  
*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, economics, marketing, and management principles. Prerequisite: 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

**BAS 221 (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. Examines 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

**BAS 223 (3) Course ID:000110**  
*Principles of Management*  
Examines 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

**BAS 289 (3) Course ID:005531**  
*Operations Management*  
Examines 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

**BAS 289 (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: Course Also Offered in Modules

**BAS 291 (3) Course ID:000116**  
*Retail Management*  
Examines retail structure, merchandising, promotions, store control, and decision. Identifies fundamental principles of store organization, consumer behavior, and customer service. Includes retailing trends, opportunities, and problems. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Course Also Offered in Modules

**BAS 293 (3) Course ID:005249**  
*Principles of Finance*  
Examines 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
Components: Lecture
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

Components: Lecture
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

Components: Lecture
BAS 299 (1 - 3) 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

Components: Lecture
BAS 1201 (0.8) 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) Managing Your Money
Presents basic concepts related to financial institutions, consumer credit management, and purchasing decisions. Prerequisite: BAS 1201, or consent of instructor. Lecture: 0.7 credits. (10.5 contact hours).

Components: Lecture
BAS 1203 (1) 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) 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) The Foundations of Business
Analyzes the essential components of business on a national and global scale. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
BAS 1602 (0.6) Business Ownership, Money, and Quality
Examines business ownership, quality systems, and quality principles. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
BAS 1603 (0.6) Introduction to Management
Identifies management functions and proper management techniques. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
BAS 1604 (0.6) Introduction to Marketing
Examines marketing functions and effective marketing techniques. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
BAS 1605 (0.6) Business Decision Making Tools
Identifies decision making tools and their specific applications to business. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
BAS 1701 (0.5) 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) 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) 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) 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) 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) Current Small Business Managerial Issues
Presents students with issues facing small businesses with an emphasis on entrepreneurship management. Prerequisite: BAS 1705 or instructor consent. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture
BAS 2001 (0.5) 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) 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) 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) 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) 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) 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) Financial Statement Analysis
Examines the elements and the form of financial statements. Prerequisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
BAS 2122 (1) Break-Even Analysis
Examines 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 2123 (1) Time Value of Money, Capital Budgeting, and Applications
Introduces the concept of time value of money, capital budgeting, and analysis of future value of funds and the use of capital. Prerequisite: BAS 2122 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
BAS 2671 (0.5) Foundation Principles of Business Law
Introduces students to the state and federal court systems, the judicial system (discovery, trial, and appellate processes), along with business organization/formation and how the law affects each separate entity as it applies to state and federal regulations. Introduces basic legal terminology. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture
BAS 2672 (0.5) Laws and Protection
Introduces students to tort and criminal law, liability, and consumer awareness and protection. Prerequisite: BAS 2671. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture
BAS 2673 (1) Contracts
Introduces law of contracts. Prerequisite: BAS 2672. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
BAS 2674 (0.5) Property Law
Introduces 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) Research and Negotiable Instruments
Introduces negotiable instruments, government regulations, and methods of legal research. Prerequisite: BAS 2674. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture
BAS 2741 (0.6) The Environment of Human Resource Management
Examines the value of human resource management and individual management responsibilities, and the legal environment. Prerequisite: (BAS 160 and BAS 263) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
BAS 2742 (0.6) Bringing Employees Into the Organization
Identifies the operational requirements of the employee intake function, including HR planning, job analysis, employee recruitment, and employee selection. Prerequisite: BAS 2741 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
Course Descriptions

BAS 2743 (0.6) Course ID:005152
Developing and Evaluating Employees
Examines training and development methods, career planning tools, and performance appraisal methods and techniques. Prerequisite: BAS 2742 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2744 (0.6) Course ID:005153
Compensating Employees
Identifies compensation design, pay for performance systems, benefits, and employee services. Pre-requisites: BAS 2743 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 market plan. Prerequisite: BAS 2821 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 market 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 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 managing 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 2834 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2836 (0.5) Course ID:005824
Special Concerns in Management
Explores international management and succeeding in one's career. Prerequisite: BAS 2835 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
Applies strategies and theories of management to demonstrate the effectiveness of sound decision-making skills and the power of delegation. Prerequisite: BAS 160 and BAS 283) or prior supervisory experience. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

BAS 2842 (0.6) Course ID:005826
Empowerment and Motivation
Examines the theories of motivation and strengthens the manager's ability to guide institutions and followers through periods of change. Prerequisite: BAS 2841. Lecture: 0.6 credit hours (9 contact hours).
Components: Lecture

BAS 2843 (0.6) Course ID:005827
Effective Coaching and Mentoring
Demonstrates importance of delegation and effective use of coaching or mentoring to provide constructive feedback to developing employees. Prerequisite: BAS 2842. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2844 (0.6) Course ID:005828
Communication and Teamwork
Applies communication techniques that allow for effective conflict resolution and encourages strong group outcomes. Prerequisite: BAS 2843. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

BAS 2845 (0.6) Course ID:005829
Effective Meetings and Quality Processes
Examines effective techniques for conducting meetings and applying theories of quality management. Prerequisite: BAS 2844. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

BAS 2871 (0.6) Course ID:005155
The Role of the Team Leader
Identifies the new responsibilities of the team leader with emphasis on competencies, planning, and controlling the work environment. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2872 (0.6) Course ID:005156
Organizing and Developing Your Team
Recognizes the fundamentals of organizing a work environment, appraising performance, acquiring training, and developing team members. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2873 (0.6) Course ID:005157
The Leadership Reins
Examines the attributes of motivation and communication in a variety of leadership styles appropriate for different managerial environments. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2874 (0.6) Course ID:005158
Managing the Team Through Conflict and Change
Examines guiding workgroups through constantly changing and challenging work environments in order to achieve organizational priorities. 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
Identifies principles of effective decision making and problem solving with emphasis on enhancing quality workplace cultures. 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
Identifies management techniques and skills that provide leaders with the capabilities to maximize both personal and organizational effectiveness. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2883 (0.6) Course ID:005162
Effective Delegation and Empowerment
Identifies strategies of delegation and empowerment that facilitate high levels of organizational effectiveness. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2884 (0.6) Course ID:005163
Communicating for Interdependence
Identifies the use of effective communication techniques that increase interdependence in workgroups. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2885 (0.6) Course ID:005164
Teamwork and Synergy
Emphasizes the power of synergy and the implementation of effective team environments. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2901 (1) Course ID:006103
Moral Philosophy and Business
Examines the nature of morality and the ethical philosophy and nature of business leadership and decision making. Prerequisite: BAS 283 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2902 (1) Course ID:006104
American Business
Examines the nature of capitalism, the social-government relationship, including the business leadership-government-society relationship. Recognizes the importance of decision making, social cost, corporate responsibility, governance, and the role of government in business. Prerequisite: BAS 2901 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
BAS 2903 (1) Course ID: 0006105
The Organization and Its People
Examines the business leadership-government-society relationship, including the challenges and issues in Today's workplace environment with an emphasis on moral choices faced by employees. Prerequisite: BAS 2902 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BEX 100 (3) Course ID: 0011118
Basic Electricity
This course introduces non-majors to the basic physics of electricity. Students apply Ohm's law; 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 coil. Corequisite: BEX 101.
Components: Lecture

BEX 101 (2) Course ID: 0011119
Basic Electricity Lab for Non-Majors
This is a hands-on class designed to allow the student to use the concepts, principles, and theories covered in Basic application. Electricity for non-majors BEX 100. Corequisite: BEX 100.
Components: Laboratory

BIO Biological Sciences

BIO 112 (3) Course ID: 000127
Introduction to Biology
Basic study of structure, function and interactions of living organisms including cell theory, genetics, energetics, evolution and ecology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science, Course Also Offered in Modules

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
Basic biological concepts as cell structure and function, metabolism, chemical basis of biology, protein synthesis, genetics, and evolution. Emphasis is placed on the cellular level. Corequisite: BIO 115. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - 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 II
Basic biological concepts as ecology, biologic diversity (to include the Kingdoms of life), reproduction, growth, and development. Emphasis placed on multicellular systems. Corequisite: BIO 117. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 117 (1) Course ID: 000166
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 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 biological diversity 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: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 132 (2) Course ID: 006819
Foundations of Cell Biology
Creates a foundation of biology and chemistry as preparation for higher level biology courses. Pre-requisite or Co-requisite: Placement above or concurrent enrollment in BEX 30 and (placement above or concurrent enrollment in ENC 91) and (placement above or concurrent enrollment in MAT 65) or consent of instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture

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: 3.0 credits (45 contact hours); Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: 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: SN - Science, SL - Science Laboratory, 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: SN - Science, SL - Science Laboratory, 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. 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).
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: SN - Science, SL - Science Laboratory

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. Includes laboratory studies of the morphology, physiology, and reproduction of animals emphasizing life processes. Prerequisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: SN - Science, SL - Science Laboratory

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: SN - Science, SL - Science Laboratory

**BIO 144 (3)**
Course ID: 0002215

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 on the origin and evolution of biological systems. Part one of a two semester sequence (BIO 150 and BIO 152). Lecture: 2 credits (60 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 organisational, 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 organisational, 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 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 205 (4)**
Course ID: 002211

Honors Biology: Structure and Function of Biological Molecules

The primary objectives of this course are to provide honors students with a basic understanding of the structural and functional properties and interrelationships of the molecules that are common to all living systems, and to elucidate the fundamental principles upon which all life is predicated. Lecture: three hours; laboratory, three hours per week. Prerequisite: Enrollment in Honors Program. High school chemistry is strongly recommended.

Components: Laboratory, Lecture

**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 216 (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 (Morehead State University) Campus: MDC

**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 224 (4)**
Course ID: 004230

Introduction to Molecular & Cell Biology

An introduction to molecular and cellular structure. Emphasis is on nucleic acids and protein structure. The laboratory experience presents fundamental techniques for the isolation and characterization of biological molecules. Prerequisite: A semester of college biology and college chemistry. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture

**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: 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

**BIO 285 (1 - 3)**
Course ID: 000195

Independent Investigation In Biology

Investigates specific topics or problems in the field of the biological sciences. May be repeated with different subtitle and credit available. Lecture/Lab 1.0 credit (18.75 contact hours).

Components: Lecture

**BIO 298 (1 - 3)**
Course ID: 000197

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

**BIO 1121 (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 1122 (0.75)**
Course ID: 006123

Cell Structure, Function, Energetics, and Cell Division

Covers basics studies of cell structure, function, energetics, and cell division. Prerequisite: BIO 1121. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

**BIO 1123 (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 1124 (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 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 Mathematics 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 credit 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 1381 (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 (18.75 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. Prerequisite: BIO 1391, BIO 1392, BIO 1393. Lecture/Lab: 1.0 credit (18.75 contact hours).
Components: Lecture

BIOL Biology
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) Campus: MYC

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

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.
Prerequisite: BMO 170
Components: Lecture

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 (15 contact hours).
Components: Lecture

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

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

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

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 function 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

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 (18 contact hours). (30:1 Ratio). Components: Lecture

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

BMT 240 (3)  Course ID:001141
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, anesthesia 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

BSE Building Science Engineering
BSE 150 (5)  Course ID:006687
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

BSE 1501 (1)  Course ID:006862
Building Science
Includes the physical principles and measurement units of building science. Lecture/Lab: 1.0 credit (18 contact hours).
Components: Lecture

BSE 1502 (1)  Course ID:006863
Building Assessment Skills
Assess the building construction techniques and use
measurements to evaluate building performance. Lecture/ Lab: 1.0 credit (18 contact hours).

Components: Lecture

BTN 1503 (1) Course ID:006864
Diagnosing Air Leakage
Focius on methods of measuring air leakage, guidelines for evaluating potential energy savings, and principles for evaluating natural and mechanical ventilation strategies. Lecture/Lab: 1.0 credit (18 contact hours).

Components: Lecture

BTN 1504 (1) Course ID:006865
Heating and Cooling
Covers the range of equipment used, describes the operation of each, and provides guidance for assessing the most critical operating parameters. Includes assessment of ducts and airflow. Lecture/Lab: 1.0 credit (18 contact hours).

Components: Lecture

BTN 1505 (1) Course ID:006866
The Building Shell and Durable Healthy Home
Covers insulation and air sealing. Includes window repair and replacement, moisture management, ventilation equipment, and pollutant source-control. Lecture/Lab: 1.0 credit (18 contact hours).

Components: Lecture

BTN Biotechnology Laboratory Technician

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

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, bio- 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/Labs: 4.0 credits (105 contact hours).

Components: Lecture

CAMPUS: OWC

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

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

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 by a combination of lecture and laboratory activities. Emphasizes the role of government oversight and regulation during discovery, development, and manufacturing of bioproducsts 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 (60 contact hours).

Components: Laboratory, Lecture

BTN 120 (4) Course ID:007348
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

BTN 125 (2) Course ID:007349
Biotechnology
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

 BTN 160 (4) Course ID:007351
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

BTN 201 (4) Course ID:005620
Biotechnology Techniques I
Introduces theory and techniques for media and solution preparation, use of analytical equipment, and laboratory safety. Includes various nucleic acid techniques, gene expression and purification, and bioinformatics. Prerequisite: 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

BTN 202 (4) Course ID:005621
Biotechnology Techniques II
Covers various protein techniques, extraction and purification, and assays. Prerequisite: BTN 201. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture

BTN 210 (4) Course ID:004985
Cell Culture and Function
Covers use of cell culture in modern biotechnological applications with emphasis on laboratory skills in a variety of cell culture techniques. 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

BTN 220 (4) Course ID:004986
Immunological Methods
Covers immunology 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

BTN 225 (4) Course ID:007352
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 polyclonal antibody 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

BTN 285 (1 - 3)
Course ID:007353
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

BTN 289 (1 - 8)
Course ID:007354
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 grade of C or better, or permission of program coordinator. Practicum: 1.0 - 8.0 credits (60-480 contact hours).

Components: Practicum

BTN 299 (1 - 3)
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

CAD Computer Aided Drafting

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

Attributes: Course Also Offered in Modules

CAD 102 (4) Course ID:004052
Drafting Fundamentals
Explores the fundamentals of drafting in the use of equipment through measurement of lines, angles, circles, arcs, and irregular curves; determining line weights; freehand sketching; geometric constructions; orthographic projection; characteristics of lines and planes; lettering; and dimensioning techniques. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory
CAD 108 (3) Course ID:0005186
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: Laboratory, Lecture

CAD 112 (4) Course ID:004054
Engineering Graphics
Explores lines and planes as they relate to orthographic projection to show the size and shape of objects. Includes application of principles and graphic elements of sectioning; techniques involved in oblique projections, axonometric projections, and perspective drawings; and dimensioning techniques and symbol usage common to all drafting disciplines. Prerequisite: CAD 102 with a grade of C or better or Approval of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

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 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

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 view projection methods, revolutions, intersections, and developments. Prerequisite: CAD 112 with a grade of C or better or approval of Instructor. Lecture: 2.0 credits (30 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

CAD 150 (4) Course ID:000217
Programming in CAD
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 with a grade of C or better or approval of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

CAD 200 (4) Course ID:000218
Intermediate Computer Aided Drafting
Produce advanced two- and three-dimensional object drawings with CAD software to learn the techniques of drafting, layering, and symbols associated with one or more design applications, and calculate perimeters, areas, and mass associated with the drawings. Prerequisite: CAD 100 with a grade of C or better or approval of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

CAD 201 (4) Course ID:000219
Parametric Modeling
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: 2.0 credits (30 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

CAD 212 (4) Course ID:004059
Industrial Drafting Processes
Explores weldment design, welding symbols, welding processes, and fabrication techniques, tool and die, and jig and fixture drawings. 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 items and construction. Prerequisite: CAD 100 with a grade of C or better or approval of Instructor. Lecture: 2.0 credits (30 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

CAD 220 (4) Course ID:004068
Architectural Design
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 both interior and exteriors of student designs. Prerequisite: CAD 120 with a grade of C or better or approval of Instructor. Lecture: 2.0 credits (30 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

CAD 222 (4) Course ID:004061
Mechanical Design
Explores the design principles, mechanical adaptation, and drawing techniques 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 design; mechanical assemblies, machine design, power transmission, bearings, and seals in assemblies. Involves shop processes in these mechanical designs. Prerequisite: CAD 100 with a grade of C or better or approval of Instructor. Lecture: 2.0 credits (30 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

CAD 230 (4) Course ID:003996
Construction Techniques
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, masonry veneer, 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: 2.0 credits (30 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

CAD 240 (4) Course ID:004008
Advanced Dimensioning and Measurement
Presents an in-depth study of advanced industrial dimensioning principles, tolerances, fits, and A.N.S.I. standards. Explores shape 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: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

CAD 252 (4) Course ID:004070
Commercial Detailing
Explores commercial drafting building codes, building structure, materials, and structural detailing and detailing. Emphasizes calculations to determine appropriate structural members. Prerequisite: CAD 120 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

CAD 262 (4) Course ID:005185
Working Drawings
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: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

CAD 291 (2) Course ID:004063
Special Problems
Allows the student to gain intermediate experience in their perspective fields through projects and tasks assigned by the instructor and based on applications the student may one day experience as a professional. Sets the foundation for more in-depth projects that will be included in the student's future portfolio. Focuses on various assignments and curriculum as determined by the program instructor. Prerequisite: Permission of the Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

CAD 292 (4) Course ID:005188
Department Consent Required
Special Problems
Explores the development of a portfolio of mechanical drawings specific to the occupational opportunities in specific geographical locations. Focuses on various assignments and curriculum as determined by the program instructor. Prerequisite: Approval of Program Coordinator. Lab: 1.0 - 4.0 credits (30-120 contact hours).
Components: Laboratory

CAD 298 (1 - 3) Course ID:004065
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

CAD 299 (1 - 3) Course ID:004066
Department Consent Required
Cooperative Education
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: Approval of Program Coordinator. Co-op: 1.0-3.0 credits (45-135 contact hours).
Components: Co-Op

CAD 1001 (0.75) Course ID:005634
CAD Basics
Uses a computer graphic workstation in the application of fundamental principles and capabilities of CAD, terminology, and operations. Includes coordinate systems and basic CAD operations. Prerequisite: (DFT 102 or BRX 120 with a grade of C or better) or consent of Instructor. Lecture: 0.5 credit (7.5 contact hours). Laboratory: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

CAD 1002 (0.75) Course ID:005635
2-Dimensional Shapes
Uses a computer graphic workstation in the application of fundamental principles and capabilities of CAD, specifically construction and manipulation of 2-dimensional shapes. Prerequisite: (CAD 1001 with a grade of C or better) or consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

CAD 1003 (0.75) Course ID:005636
Sections and Orthographic Projections
Uses a computer graphic workstation in the application of fundamental principles and capabilities of CAD,
specifically orthographic projections and drafting of sections. Prerequisite: (CAD 1002 with a grade of C or better) or consent of instructor. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.25 credits (7.5 contact hours).

Components: Laboratory, Lecture

CAR 100 (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

CAR 119 (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 lab or job-site practice. Corequisite: CAR 190. Laboratory: 2 credits (60 contact hours).

Components: Laboratory

CAR 190 (3) Course ID:001150
Light Frame Construction I
Course Descriptions

CAR 151 (2) Course ID:001157
Concrete Formwork-Lab
Introduces the carpentry student to heavy and commercial concrete form construction. Provides for the application of information about the properties of concrete, rigging, concrete wall form systems, above grade floor systems, vertical piers and column 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

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 piers and column 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

CAR 241 (2) Course ID:001165
Light Frame Const. IV-Lab
Course ID:007299

Green Building
Integrates principles of green building technologies and methods into sustainable construction. Emphasizes green materials used in the construction of buildings along with alternative and/or renewable energy systems. Introduces Leadership in Energy and Environmental Design (LEED) and the National Green Building Standard (NGBS) rating systems for the certification process of green buildings. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CAR 270 (3) Course ID:001166
Practicum in Construction
Refines the techniques and skills taught in the previous carpentry courses. Provides supervised on-the-job experience related to the students educational and career training objectives. Practicum can be performed on the college campus with work assignments supervised by your program coordinator. Consists of a minimum of 150 contact hours. Two credit hours will be granted after completion. Students participating in the Practicum do not receive compensation as in the co-op program. Prerequisite: ISX 100 and/or Permission from program Instructor. Practicum: 2 credits (150 contact hours).

Components: Practicum

CAR 298 (2) Course ID:001167
Co-op in Construction
Refines the techniques and skills taught in the previous carpentry courses. Provides a supervised on-the-job experience related to the students educational and career training objectives. The program will consist of a minimum of 150 contact hours. 2.0 credit hours will be granted after completion. Prerequisite: ISX 100 and/or Permission from program Instructor. Co-op: 2 credits (150 contact hours).

Components: Co-Op

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 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

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

CAR 198 (1 - 6) Course ID:005344
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

CAR 200 (3) Course ID:001162
Light Frame Construction III
Presents the concepts of interior and exterior finish materials and methods of installation. Lecture: 3 credits (45 contact hours).

Components: Lecture

CAR 201 (2) Course ID:001163
Light Frame Const. III-Lab
Provides an opportunity for students to perform basic applications of the concepts of interior and exterior finish methods for light frame construction. Corequisite: CAR 200. Laboratory: 2 credits (60 contact hours).

Components: Laboratory

CAR 240 (3) Course ID:001164
Light Frame Construction IV
Covers the concepts that support the planning, construction and installation methods for kitchen and bath cabinetry and countertops including special finish techniques such as special finish stair construction and specialty millwork. Lecture: 3 credits (45 contact hours).

Components: Lecture

CAR 241 (2) Course ID:001166
Light Frame Const. IV-Lab
Course ID:004703

CET 150 (3) Course ID:004703
Civil Engineering Graphics
Course Descriptions

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. 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: Laboratory, Lecture

CAR 202 (1) Course ID:001164
Light Frame Const. IV-Lab
Provides an opportunity for students to perform basic applications of the concepts of interior and exterior finish methods for light frame construction. Corequisite: CAR 200. Laboratory: 2 credits (60 contact hours).

Components: Laboratory

CAR 240 (3) Course ID:001164
Light Frame Construction IV
Covers the concepts that support the planning, construction and installation methods for kitchen and bath cabinetry and countertops including special finish techniques such as special finish stair construction and specialty millwork. Lecture: 3 credits (45 contact hours).

Components: Lecture

CET 210 (3) Course ID:004705
Strategic 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: Lecture
CHE 120 (3)  Course ID: 000237
The Joy of Chemistry
Introduces non-science majors to the main concepts and applications of chemistry in our society. Prerequisite: (Math ACT score of 19) OR (MT 120 or MT 122) with a grade of C or better. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science, Course Also Offered in Modules

CHE 125 (1)  Course ID: 0006172
The Joy of Chemistry 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: (Math ACT score of 19) OR (Applied Mathematics with a grade of C or better). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: SN - Science, SL - Science Laboratory

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. Intended for students interested in a one-semester course in general chemistry and recommended for students seeking careers in allied health fields. Prerequisite: (Math ACT score of 19) OR (MT 120 or MT 122 with a grade of C or better). Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

CHE 145 (1)  Course ID: 000239
Introductory General Chemistry Laboratory
Reinforces concepts covered in CHE 170 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: Laboratory
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 liquids. Prerequisite: CHE 140 with a grade of C or better. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science, SL - Science Laboratory

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

CHE 170 (3)  Course ID: 000225
General College Chemistry I
Focuses on major chemical topics, including stoichiometry, atomic structure, 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 with a grade of C or better OR (CHE 160 with a grade of P) OR (Intermediate Algebra with a grade of C or better). Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: SN - Science

CHE 173 (1)  Course ID: 006174
General College Chemistry I Workshop
Focuses on problem solving and further application of CHE 170. CHM 175 course materials. If students withdraw from the associated CHE 170/CHM 175 course, they must also withdraw from CHE 173. Prerequisite or corequisite: CHE 170 or CHM 175. Lecture: 1 credit (15 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). (45:1 ratio).

Components: Laboratory
Attributes: SN - Science, SL - Science Laboratory

CHE 180 (3)  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 with C or better). Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science, SL - Science Laboratory

CHE 183 (1)  Course ID: 006186
General College Chemistry II Workshop
Focuses on problem solving and further application of CHE 180 or CHE 185 course materials. If students withdraw from the associated CHE 180/185 course, they must also withdraw from CHE 183. Prerequisite or corequisite: CHE 180 or CHE 185. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

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 180 with a grade of C or better. Prerequisite or corequisite: CHE 180. Laboratory: 1 credit (45 contact hours). (45:1 ratio).

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

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. Pre-requisite: (CHE 140 and CHE 145) or consent of instructor. Co-requisite: CHE 190. Lab: 1.0 credit hour (45 contact hours).

Components: Laboratory

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 180. 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 credit (45 contact hours).  
Components: Lecture  
Attributes: SN - Science  
CHE 285 (2)  Course ID:000233  
Organic Chemistry Laboratory II  
Introduces students to different fields in chemistry in society. Prerequisite: CHE 275 with a grade of C or better. Prerequisite or corequisite: CHE 280. Laboratory: 2 credits (60 contact hours).  
Components: Laboratory  
Attributes: SC - Science Laboratory  
CHE 290 (1 - 3)  Course ID:006175  
Selected Topics in Chemistry. (Topic)  
Introduces students to fundamental programming concepts using the Java programming language. Includes data types, control structures, error-handling, object-oriented programming, graphical user interfaces, and web security. Prerequisite: CIT 270 or Consent of Instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Digital Literacy, Computer Literacy, Course Also Offered in Modules  
CHE 291 (1 - 3)  Course ID:006176  
Laboratory Research in Chemistry. (Topic)  
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: SN - Science Laboratory  
CHE 1201 (0.75)  Course ID:006126  
Fundamentals  
Introduces the non-science majors to the fundamentals and applications of chemistry in our society. Prerequisite: Math ACT score of 19 OR (MT 120) or (MT 122) with a grade of C or better. Lecture: 0.75 credit (11.25 contact hours).  
Components: Lecture  
CHE 1202 (0.75)  Course ID:006127  
Chemistry in Society  
Introduces the non-science majors to the applications of chemistry 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 090 (3.0)  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 credits (45 contact hours).  
Components: Lecture  
CIT 105 (0.75)  Course ID:004710  
Introduction to Computers  
Provides an introduction to the computer and the convergence of technology as used in today's global environment. Introduces topics including computer hardware and 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 credits (45 contact hours).  
Components: Lecture  
CIT 110 (1)  Course ID:006189  
Computer Hardware and Software  
Introduces 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 OR Consent of Instructor. Pre-requisite Or Co-requisite: MAT 085. Lecture: 3 credits (60 contact hours).  
Components: Lecture  
Attributes: Digital Literacy, Computer Literacy, Course Also Offered in Modules  
CIT 111 (4)  Course ID:006172  
Computational Thinking  
Introduces students to fundamental programming concepts using the Visual Basic programming language. Includes 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 credits (45 contact hours).  
Components: Lecture  
Attributes: Course Also Offered in Modules  
CIT 120 (3)  Course ID:006901  
Introduction to GIS  
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. Prerequisite: CIT 120 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Course Also Offered in Modules  
CIT 145 (3)  Course ID:004715  
Perl I  
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, and file processing. Prerequisite: CIT 120 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Course Also Offered in Modules  
CIT 147 (3)  Course ID:006903  
Java I  
Introduces students to fundamental programming concepts using the Java programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, and file processing. Prerequisite: CIT 120 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Course Also Offered in Modules  
CIT 149 (3)  Course ID:004717  
Java II  
Introduces students to fundamental programming concepts using the Java programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, and file processing. Prerequisite: CIT 120 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Course Also Offered in Modules  
CIT 150 (3)  Course ID:004718  
Internet Technologies  
Introduces students to 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 credits (45 contact hours).  
Components: Lecture  
Attributes: Course Also Offered in Modules  
CIT 140 (3)  Course ID:004714  
JavaScript I  
Introduces students to fundamental programming concepts using the JavaScript scripting language. Includes coding, testing, and debugging JavaScript programs; using variables, operators, and data types; 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 credits (45 contact hours).  
Components: Lecture  
Attributes: Course Also Offered in Modules
CIT 151 (3)  Course ID:007390
Social Media I
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).
Components: Lecture

CIT 152 (3)  Course ID:007391
Social Media Tools and Technologies
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 niches to maximize business presence. Pre-requisite: CIT 150 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Laboratory

CIT 155 (3)  Course ID:006904
Web Page Development
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 (60 contact hours).
Components: Lecture

CIT 157 (3)  Course ID:006905
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: 3.0 credits (60 contact hours).
Components: Lecture

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 Or Co-requisite: CIT 111 AND MAT 085 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

CIT 161 (4)  Course ID:006906
Network Fundamentals
Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Provides the opportunity to build simple LAN topologies by applying principles of cabling; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. (This is the first course in the Cisco Exploration sequence.) Pre-requisite or Co-requisite: CIT 111 AND MAT 085 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

CIT 162 (4)  Course ID:006907
Home and Small Office Networks
Introduces the skills to install home and small office networks. Develops skills needed by network technicians, computer technicians, cable installers, and help desk technicians. Provides a hands-on introduction to networking and the Internet using tools and hardware commonly found in home and small office environments. (This is the first course in the Cisco Discovery sequence.) Pre-requisite or Co-requisite: CIT 111 AND MAT 085 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

CIT 163 (4)  Course ID:006908
Small-Medium Business or ISP
Prepares students for jobs as network technicians. Develops additional skills required for computer technicians and help desk technicians. Provides a basic overview of routing and remote access, addressing, security, and covers servers that provide e-mail services. Web space, and authenticated access. (This is the second course in the Cisco Discovery sequence.) Pre-requisite: CIT 162 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

CIT 164 (4)  Course ID:006909
Intro to Routing and Switching
Familiarizes students with the equipment applications and protocols installed in enterprise networks, with a focus on switched networks, IP Telephony requirements, and security. Introduces advanced routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol. (This is the third course in the Cisco Discovery sequence.) Pre-requisite: CIT 163 OR Consent of Instructor. Pre-requisite: CIT 163 OR Consent of Instructor.
Components: Lecture

CIT 165 (4)  Course ID:006910
Network Design and Support
Provides a student with the organizational and technical skills necessary for gathering network requirements, designing basic networks, establishing proof-of-concept, and performing problem management tasks through a variety of case studies and role-playing exercises. Presents lifecycle services, including upgrades, competitive analyses, and system integration in the context of pre-sale support. (This is the fourth course in the Cisco Discovery sequence.) Pre-requisite: CIT 164 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

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: Digital Literacy AND College Readiness in Mathematics OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

Course Equivalents: CSE 270
Attributes: Course Also Offered in Modules

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. Prerequisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

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 cryptography. Prerequisite: (CIT 105 AND (CIT 160 OR CIT 161 OR CIT 162)); OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

Attributes: Course Also Offered in Modules

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

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

CIT 201 (3)  Course ID:007295
Information Storage Management
Provides a comprehensive introduction to storage technology. Explores the archetypes, 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 211 and CIT 214) or consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture

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 for creation and management of virtual machines, virtual switches and storage architectures including distributed resource scheduling, high availability, and fault tolerance. Satisfies the VMware Certified Professional (VCP) course requirement. Pre-requisite: (CIT 211 and CIT 214) or consent of instructor. Lecture: 3.0 credits (60 contact hours).
Components: Lecture

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. Prerequisite: (CIT 201 and CIT 203) or consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture

CIT 210 (4)  Course ID:006913
Routing Protocols and Concepts
Provides students with the skills necessary to understand and apply concepts related to networking hardware. Covers TCP/IP concepts such as IP addressing and subnetting, router configuration, routing and routing protocols. Completes one of a series of four courses that helps prepare students for the Cisco Certified Network Associate (CCNA) certification exam. (This is the second course in the Cisco Exploration sequence.) Pre-requisite: CIT 161 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

CIT 211 (4)  Course ID:004722
LAN Switching and Wireless
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. (This is the third course in the Cisco Exploration sequence.) Prerequisite: CIT 161 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

Course Equivalents: CSE 282

CIT 212 (4)  Course ID:004723
Accessing the WAN
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. (This is the fourth course in the Cisco Exploration sequence.) Prerequisite: (CIT 210 AND CIT 211) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Course Equivalents: CIT 283

CIT 213 (3) Course ID:006192

MS Client/Server Config
Covers installation and configuration of Microsoft Windows client and server operating systems. Helps prepare students for exams in the Microsoft certification exam series. Prerequisite: CIT 111 AND (CIT 160 OR CIT 161 OR CIT 162) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

CIT 214 (3) Course ID:006914

Server Infrastructure Admin
Provides students with the knowledge and skills to configure and administer a network server infrastructure including DNS, WINS, DHCP and RRAS Servers. Covers how to implement and configure secure network access and implement fault tolerant storage technologies, network technologies most commonly used with Windows Servers and IP-enabled networks, and secure servers and maintain update compliance. Assists in prepping students for the Microsoft certification exam series. Pre-requisite: CIT 213 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

CIT 217 (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. Learn 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: Course Also Offered in Modules

CIT 218 (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
Course Equivalents: CIS 230

CIT 221 (3) Course ID:006916

Internet Protocols
Provides an in-depth exploration of the components of the TCP/IP protocol suite and the associated underlying technologies required to support them. Includes design, installation, configuration, management, and troubleshooting of TCP/IP networks. Pre-requisite: (CIT 160 OR CIT 161OR CIT162) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Course Equivalents: CIT 269

CIT 223 (3) Course ID:006917

Computer Animation
Introduces basic 2D and 3D computer animation methods. Develops and applies traditional animation techniques using existing computer software and develops their own animation applications using a high-level programming language. Explores engineering, visualization, advertising, simulation, and multimedia applications of computer animation. Pre-requisite: (CIT 221 AND Approved Level I Programming Language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 225 (3) Course ID:006918

GIS Software Tools
Explores Geographic Information System extensions. Introduces and identifies popular advanced extensions used for network analysis, spatial analysis, and 3D analysis. Pre-requisite: (CIT125 AND CIT170) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 229 (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.) Pre-requisite: CIT 125 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 232 (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 234 (3) Course ID:004727

Advanced Productivity Software
Uses advanced functions of word processing, presentation, and email software. Includes working with complex documents creating and preparing data distribution on the web. Prerequisite: CIT 130 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 236 (3) Course ID:004728

Adv Data Organization Software
Uses advanced functions of databases and spreadsheets. Explores complex databases and spreadsheets for the creation and preparation of data distribution on the web. Prerequisite: CIT 130 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 241 (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

CIT 242 (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++. Pre-requisite: CIT 142 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 246 (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. Pre-requisite: Level I Programming Language (using the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 247 (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. Pre-requisite: CIT 147 (for the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 249 (3) Course ID:004729

Visual Basic II
Develops applications using Visual Basic with an emphasis on application design, record-handling routines, and database engine operations, including working with objects from Microsoft Office, creating ActiveX documents, and building Internet applications with these documents. Prerequisite: CIT 148 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 250 (3) Course ID:007392

Social Media II
Provides students with skills, knowledge, and experience to respond to the challenges of a rapidly changing world 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

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

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: (CIT 150 AND ((CIT 213 AND CIT 261) OR (CIT 217 AND CIT 218)) AND CIT 219) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

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
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

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 cabling 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 261 (3) Course ID:005209
MS Active Directory Services
Provides students with the knowledge and skills necessary to install, configure, and administer Microsoft Windows Directory Services. Focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. Assists in prepping students for exams in the Microsoft certification exam series. Prerequisite: CIT 213 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules

CIT 262 (3) Course ID:005210
MS Networking Infrastructure
Provides students with the knowledge and skills necessary to install, configure, manage, and support a network infrastructure using a Microsoft Windows server operating system. Assists in prepping students for exams in the Microsoft certification exam series. Prerequisite: (CIT 213 AND CIT 219) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 263 (1 - 6) Course ID:006246
Advanced Topics in Microsoft Windows: (Topic)
Covers concepts and/or skills from special areas of interest in Microsoft Windows operating systems. Focus on specific topics that will vary from semester to semester at the discretion of the instructor. Prerequisite: CIT 213 or consent of instructor. Lecture: 1-6 credits (15-90 contact hours).

Components: Lecture

CIT 264 (3) Course ID:006194
MS Server Administration
Focuses on planning a Microsoft server infrastructure as well as managing the server operating system, file and directory services, software distribution and updates, and troubleshooting. Prerequisite: (CIT 261 AND (CIT 214 OR CIT 262)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules

CIT 265 (3) Course ID:006195
MS Application Servers
Focuses on the deployment, configuration and management of Microsoft servers that support users and applications, especially web servers, Remote Desktop servers, SharePoint servers and file servers. Prerequisite: CIT 213 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 266 (3) Course ID:006196
MS Enterprise Administration
Focuses on Windows server administration at the enterprise level. Includes planning projects and services, designing core identity and access management components, implementing a public key infrastructure, planning for restructuring forests and domains, and designing a virtualization strategy. Prerequisite: (CIT 261 AND (CIT 214 OR CIT 262)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 269 (3) Course ID:004731
Internet Protocols
Provide students with the knowledge and skills to install, configure, manage and troubleshoot internetworking using TCP/IP and its associated protocols. Prerequisite: (CIT 111 and CIT 160) or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture

CIT 271 (3) Course ID:004732
SQL II
Provides an extensive overview of SQL using programming to create, query, manage and maintain databases. Uses advanced features of SQL including stored procedures and triggers, to design and interface with a database and other applications. Prerequisite: CIT 171 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 276 (3) Course ID:006926
3-D Game Development: Language
Provides students with an introduction to three-dimensional game creation. Includes the creation of a three-dimensional game development using an industry-specific or emerging programming language. Pre-requisite: CIT 246 (using the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 277 (3) Course ID:006927
Programming III: Language
Introduces students to complex programming concepts using an industry-specific or emerging programming language. Includes complex features of the language not previously covered in Programming I and Programming II. Comprehensive projects will be developed that model work performed in a corporate environment. Pre-requisite: CIT 247 (for the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 278 (3) Course ID:006928
Visual Basic III
Provides students with the knowledge and skills to design, develop, and implement distributed and Web client applications using the Visual Basic programming language. Includes advanced application and user interface design, custom libraries, ActiveX Objects, stored procedures, and distributed applications. Prerequisite: CIT 248 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

CIT 281 (4) Course ID:004736
Routing
Provides students with the skills necessary to understand and apply concepts related to networking hardware. Covers advanced TCP/IP concepts such as IP addressing and subnetting, beginning router configuration, routed and routing protocols. Completes one of a series 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 (60 contact hours).

Components: 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 (60 contact hours).

Components: Lecture

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 282) or consent of instructor. Lecture: 4 credits (60 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules

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

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

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 165 OR CIT 212) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

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

CIT 290 (3) Course ID:004733
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

Course Equivalents: CIS 280

CIT 291 (3) Course ID:006198
CIT Capstone
Apply acquired techniques, 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
Course Descriptions

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

CIT 299 (1 - 3) Course ID:004742
Special Topics in CIT
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

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

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 OR Consent of Instructor. Pre-requisite OR Co-requisite: MAT 085. 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 085 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 1204 (0.6) Course ID:006980
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 1301 (0.8) Course ID:006981
Word Processing Applications
Utilizes word processing 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 1302 (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 1303 (0.8) Course ID:006983
Presentation Software Apps
Utilizes 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 1304 (0.6) Course ID:006984
JavaScript Basics
Provides an overview of the JavaScript language. Introduces variables, operators, and data types. Pre-requisite: CIT 150 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 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 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 1504 (1) Course ID:006999 Web Programming
Creates basic web content using HTML and client/server applications to publish to the web. Pre-requisite: CIT 1503 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: Digital Literacy AND MAT 085 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1602 (1) Course ID:007001 Network Media and Technologies
Introduces vendor agnostic technical level 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 basics 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 1621 (1) Course ID:007004 Hardware and Operating Systems
Provides concepts about PC hardware and operating systems. Pre-requisite: MAT 065 OR Consent of Instructor. Pre-requisite: CIT 110 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 a 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 1701 (0.6) Course ID:007013 Database Concepts
Provides an overview of database and database management system concepts. Pre-requisite: Digital Literacy AND College Readiness in Mathematics 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
Presents concepts about database design and implementation. Introduces Structured Query Language (SQL). Pre-requisite: CIT 1702 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

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 1801 (0.8) Course ID:007017 Security Concepts
Introduces basic security concepts and methodologies. Pre-requisite: CIT 105 and [CIT 160 OR 161 OR 162] OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1802 (0.8) Course ID:007018 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 (0.6) Course ID:007019 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) Course ID:007020 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) Course ID:007021 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) Course ID:007022 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) Course ID:007023 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) Course ID:007024 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) Course ID:007025 Ethical Hacking concepts
Presents concepts about ethical hacking. Pre-requisite: CIT 180 OR consent of instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1842 (1) Course ID:007026 Computer/Network Attacks
Presents various types of attacks and exploits against computers and networks. Pre-requisite: CIT 1841 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1843 (0.8) Course ID:007027 Malicious Software and Defense
Presents effective defensive techniques against real attacks. Pre-requisite: CIT 1842 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1844 (0.4) Course ID:007028 Incident Handling
Provides concepts and techniques for proper incident handling and documentation. Pre-requisite: CIT 1843 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

CIT 2131 (0.6) Course ID:007029 Window OS Installation & Setup
Provides concepts and skills for installation and setup of Microsoft Windows client and server operating systems. Pre-requisite: [CIT 111 and (CIT 160 or CIT 161 or CIT 162)] OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2132 (0.6) Course ID:007030 Group and User Accounts
Provides concepts and skills for creating and managing accounts and resource access in Microsoft Windows client and server operating systems environment. Pre-requisite: CIT 2131 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
CIT 2133 (0.6) Course ID: 007031
System & Resource Config
Provides concepts and skills for configuring disks, file systems, and file resources in Microsoft Windows client and server operating systems environment. Pre-requisite: CIT 2132 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2134 (0.6) Course ID: 007032
OS Configurations and Security
Provides concepts and skills for configuring printers, security, and the Windows environment. Pre-requisite: CIT 2133 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2135 (0.6) Course ID: 007033
Optimizing Windows OS
Provides concepts and skills for optimizing performance in the Windows environment including mobile computing, and disaster planning. Pre-requisite: CIT 2134 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2141 (1) Course ID: 007096
OS Server Concepts & Installs
Presents an overview of network concepts such as TCP/IP addressing and subnetting. Provides concepts and skills to install and setup Windows Server. Pre-requisite: CIT 213 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2142 (1) Course ID: 007097
Server Role, File, & Print Services
Provides concepts and skills to configure and administer a networks server infrastructure including DNS, WINS, DHCP, File and Print Servers. Pre-requisite: CIT 2141 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2143 (1) Course ID: 007098
Maintaining The Network
Explains concepts and develops skills related to network and remote technologies most commonly used with Windows Servers and IP-enabled networks. Explains how to secure servers and maintain update compliance in Windows Server environments. Pre-requisite: CIT 2142 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2171 (0.8) Course ID: 007034
Intro to UNIX/Linux
Introduces basic Unix/Linux concepts. Pre-requisite: CIT 111 AND CIT 160) OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 2172 (0.8) Course ID: 007035
Accounts, Resources, & Editors
Presents Unix/Linux commands to manage accounts, file systems and resources. Introduces editors for creating text files. Pre-requisite: CIT 2171 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 2173 (1.4) Course ID: 007036
File Processing and Lab
Introduces commands and scripts for file processing. Pre-requisite: CIT 2172 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Lecture

CIT 2611 (0.75) Course ID: 007099
Win Directory Services Overview
Provides knowledge and skills to configure and implement directory services, domains, and user accounts. Pre-requisite: CIT 215 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2612 (0.75) Course ID: 007100
Directory Objects & Publishing
Focuses on creation and management of directory objects, trees, and objects and publishing resources. Pre-requisite: CIT 2611 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2613 (0.75) Course ID: 007101
Dir Services Group Policy
Explains how to configure group policy settings to manage directory services such as users, desktop environment, software, and security settings. Pre-requisite: CIT 2612 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2614 (0.75) Course ID: 007102
Directory Management & Services
Explains how to configure and manage operations, restoration, and replication of Directory Services. Pre-requisite: CIT 2613 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2641 (0.75) Course ID: 007037
Windows Server Deployment
Plans infrastructure deployment and services including server roles, access control, and group policy. Pre-requisite: (CIT 261 AND (CIT 214 OR CIT 2842)) OR Consent of Instructor. Lecture: 0.75 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

CIT 2642 (0.75) Course ID: 007038
Planning Directory Services
Plans application, file, and print services. Pre-requisite: CIT 2641 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

CIT 2643 (0.75) Course ID: 007044
Server Management Strategies
Design and manage infrastructure and server strategies. Pre-requisite: CIT 2642 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

CIT 2644 (0.75) Course ID: 007039
Windows Server Security
Provides management and monitoring of windows servers including security. Pre-requisite: CIT 2643 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Lecture

CIT 2841 (0.5) Course ID: 007040
Computer Forensics Overview
Provides a computer forensics overview and presents concepts about forensics investigations. Pre-requisite: CIT 180 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2842 (0.4) Course ID: 007041
Forensics Lab Setup
Provides concepts and skills for setting a computer forensics lab and data acquisition. Pre-requisite: CIT 2841 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

CIT 2843 (1) Course ID: 007042
Digital Evidence Procurement
Provides basic knowledge on methods and processes for collection and analyzing digital evidence. Pre-requisite: CIT 2842 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2844 (1) Course ID: 007043
Investigations and Reporting
Provides basic knowledge on methods and processes for investigations and reporting. Pre-requisite: CIT 2843 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2881 (1) Course ID: 007103
Network Security Basics
Identifies importance of computer ethics in relation to hacking and defending against computer and network threats. Pre-requisite: CIT 180 AND Level 1 Network Technologies Specialization Sequence) OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2882 (1) Course ID: 007104
Network Attacks & Lab
Provides students with the knowledge and skills to defend against a variety of computer and network attacks. Focuses on the offensive techniques used to launch attacks. Pre-requisite: CIT 2881 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.5 credit (15 contact hours).
Components: Laboratory, Lecture

CIT 2883 (1) Course ID: 007105
Network Vulnerability & Lab
Provides students with the knowledge and skills necessary to identify and proactively defend against computer and network attacks. Focuses on the defensive techniques required to defend computers and networks. Pre-requisite: CIT 2882 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

CIT 2911 (1) Course ID: 007106
Project Management Concepts
Introduces basic project management and systems analysis concepts. Pre-requisite: 36 hours of CIT courses OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2912 (0.8) Course ID: 007107
Project Planning
Applies acquired techniques, knowledge, and skills to successfully analyze, design, and plan a CIT project. Pre-requisite: CIT 2911 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 2913 (0.6) Course ID: 007108
Project Implementation
Applies acquired techniques, knowledge, and skills to successfully implement a CIT project. Pre-requisite: CIT 2912 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2914 (0.8) Course ID: 007109
Project Evaluation
Develops and presents key project management and system analysis deliverables in a portfolio including evaluation of project. Pre-requisite: CIT 2913 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CLA Classical Languages and Literature

CLA 131 (3) Course ID: 000274
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

CMM Computerized Manufacturing and Machining

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. Pre-requisite: (CIT 261 AND CIT 262) OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture

Course Descriptions

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CMM 112 (4)  
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: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).  
Components: Laboratory, Lecture

CMM 114 (7)  
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 includes: drill presses, power saws, measurement instruments, mills and lathes. Lecture: 3.0 credits (45 contact hours). Lab: 4.0 credits (120 contact hours/30:1 ratio).  
Components: Laboratory, Lecture

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

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

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

CMM 124 (6)  
Course ID: 001818  
Applied Machining III  
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

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

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

CMM 134 (6)  
Course ID: 001821  
Manual Programming CAD/CAM/CNC  
Introduces the student to CAD/CAM/CNC systems, CNC format, the Cartesian Coordinates System, CNC codes and programming, set-up and operation of CNC machine tool. Prerequisite: (CMM 110 and CMM 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

CMM 138 (6)  
Course ID: 006243  
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 wear. 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

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

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

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

CMM 153 (3)  
Course ID: 005092  
Mold Theory  
Presents mold-making including thermoplastic and thermostatic materials, compression mold, transfer mold, injection molds and mold components, the heating and cooling of molds and the methods of producing cores and cavities. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture

CMM 154 (3)  
Course ID: 005093  
Die Theory  
Presents basic die making including die sets, punch presses, blanking dies, piercing dies, screw and dowel 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

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

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

CMM 201 (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 CMM 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

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

CMM 214 (6)  
Course ID: 001824  
Industrial Machining  
Provides the skills and knowledge of 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: Laboratory, Lecture

CMM 220 (4)  
Course ID: 001825  
Advanced Industrial Machining I  
Allows for construction of smaller electrodes and 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 on 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 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 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

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, and other type of grinders. **National Standards require EDM and cylindrical grinder training. Those programs lacking this equipment can only present theory. KCTCS is presently trying to acquire EDM and cylindrical grinders.** Prerequisite: 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

CMM 230 (6)  
Course ID: 001828  
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
CMM 234 (6) Course ID:006244
CNC Machines & Coding Practices
Introduces the student to conversational programming of CNC machine tools to include conversational setup and run options found on a CNC water jet machine.
Prerequisite: (CMM 130 and CMM 132) or (CMM 134 or CMM 138) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 5.0 credits (150 contact hours).
Components: Lecture

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) 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 Communications

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

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

COE Cooperative Education

COE 198 (1 - 9) Course ID:005265
Practicum
Provides a planned and evaluated work experience related to the student's educational objective for which the student receives academic credit but no financial remuneration. Practicum: 1-9 credits (45-405 contact hours). Prerequisite: Consent of Instructor.
Components: Practicum

COE 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

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. Pre-requisite: Current placement scores for college level reading established by KTCTS, or completion of DRE 030 or RDG 030 or CMS 185) AND (current placement scores for college level writing established by KTCTS or completion of ENC 091)) OR consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

COM 155 (3) Course ID:006257
Introduction to Broadcasting
Introduces the history of the broadcast media in the United States and to current practicing operations including Internet distribution. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

COM 157 (3) Course ID:000300
Basic Photography
Photographic techniques such as composition, lighting, exposure control, and skills needed by a photojournalist. Other topics may include using digital cameras, digital file formats, enhancing the digital image, and structuring the digital image. Lab component may include the use of a computer with photo imaging software and/or a darkroom using film cameras and enlargers. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture

COM 266 (3) Course ID:006258
Basic Television Production
Introduces the principles and techniques of field and studio video production and provides practical application in general broadcast station operations. Lecture: 2.0 credits (30 contact hours); Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

COE Cooperative Education

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 or 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 enrolled, and minimum cumulative grade point average (GPA) of 2.0.
Components: Co-Op
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 and gender differences in interpersonal communication. Prerequisite: (Current placement scores for college level reading established by KCTCS, or completion of DRE 030 or RDG 030 or CMS 185) AND (current placement scores for college level writing established by KCTCS or completion of ENC 091) OR consent of instructor. 
Lecture: 3 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. Prerequisite: (Current placement scores for college level reading established by KCTCS, or completion of DRE 030 or RDG 030 or CMS 185) AND (current placement scores for college level writing established by KCTCS or completion of ENC 091) OR consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science, SB - Communications

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. Prerequisite: (Current placement scores for college level reading established by KCTCS, or completion of DRE 030 or RDG 030 or CMS 185) AND (current placement scores for college level writing established by KCTCS or completion of ENC 091) OR consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: OC - Oral Communication, 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

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, 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. Prerequisite: (ENG ACT 18 and RDG ACT 18 or a comparable score on the SAT I or COMPASS) or (RDG 030 or CMS 185 or DRE 030) and ENC 091). Lecture: 3 credits (45 contact hours).

Components: Lecture

COM 299 (3)  Course ID:004257  
Special Topics in Communication  
A more in-depth study of selected topics in communication. Prerequisite: COM 252 or consent of instructor. Lecture: 3 hours.

Components: Lecture

COM 2521 (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. Prerequisite: (Current placement scores for college level reading established by KCTCS, or completion of DRE 030 or RDG 030 or CMS 185) AND (current placement scores for college level writing established by KCTCS or completion of ENC 091) OR consent of instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

COM 2522 (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 2523 (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 relationship 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 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

COS 114 (14)  Course ID:001233  
Student Teaching I  
Introduces teaching methods used in training cosmetology and nail technology students. Includes a brief overview of the State Board of Cosmetology. Prerequisite: COS 150. Lecture: 5 credits (75 contact hours). Laboratory: 8 credits (240 contact hours).

Components: Laboratory, Lecture

COS 199 (3)  Course ID:004213  
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 nails, culture 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: 3 credits (45 contact hours). Laboratory: 8 credits (240 contact hours).

Components: Laboratory, Lecture

COS 205 (14)  Course ID:005540  
Individual Requirements I  
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

COS 210 (13)  Course ID:001233  
Student Teaching I  
Introduces teaching methods used in training cosmetology and nail technology students. Includes a brief overview of the State Board of Cosmetology. Prerequisite: COS 150. Lecture: 3 credits (45 contact hours). Consent of Instructor. Lecture:Lab: 14.0 credit hours (360 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

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. Includes a brief overview of the State Board of Cosmetology. Prerequisite: COS 210. Lecture: 8 credits (240 contact hours).

Components: Laboratory, Lecture

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
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

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 Licensing 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

COS 235 (1 - 8) Course ID:004413
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

COS 275 (13) Course ID:005545
Esthetician III
Covers procedures for business management, the practice of esthetic setup, sanitation, application techniques, advanced esthetics which include peels, deep pore cleansing, clinical skin care, aromatherapy, 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

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 manicures, pedicures, facials, 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. Laboratory: 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 basis for the application of 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

CRJ 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 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture

CRJ 102 (3) Course ID:004192
Introduction to Corrections
Provides an introduction to the development of correctional systems, and the processes, procedures, and issues of current correctional systems, both juvenile and adult. 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 credit hours (45 contact hours).
Components: Lecture

CRJ 107 (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 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Advanced Firearms and Less Than Lethal Weapons

Introduces facility security with the use of environmental

Physical Security Technology & Systems

Components: Lecture

CRJ 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

CRJ 224 (4) Course ID:007359
Basic Traffic Collision Investigation

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). Lab: 2.0 credits (30 contact hours).

Components: Laboratory, Lecture

CRJ 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). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

CRJ 230 (3) Course ID:006233
Criminal Justice Courtroom Procedures

Covers research, study, and discussion of current and emerging topics, issues, and trends in courtroom procedures. Includes basic courtroom procedures and the roles of the key personnel within the courtroom setting. Includes practical preparation procedures for witness presentation of testimony. Pre-requisite: (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

CRJ 231 (3) Course ID:006234
Legal Aspects of Corrections

Covers research, study, and discussion of current and emerging topics, issues, and trends in corrections. Includes 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 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

CRJ 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 corporate and industrial security procedures and the roles of the key personnel within the private security arena. Pre-requisite: (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

CRJ 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 identifying, investigating, and prosecuting occupational fraud.

**Components:** Lecture

**CRJ 115 (3) Course ID:000321**

**Introduction to Computer Programming**

This course teaches introductory skills in computer programming using an object-oriented computer programming language. There is an emphasis on both the principles and practice of computer programming. Covers principles of problem solving by computer and requires completion of a number of programming assignments.

**Components:** Lecture

- **Attributes:** University Course (University of Kentucky)
- **Campus:** BLC

**CS 215 (4) Course ID:000719**

**Introduction to Program Design, Abstraction, and Problem Solving**

This course teaches introductory object-oriented problem solving, design, and programming engineering. An equally balanced effort will be devoted to the three main threads in the course: concepts, programming language skills, and rudiments of object-oriented programming and software engineering. Pre-requisites: CS 115. Lecture: 4.0 credits (60 contact hours).

**Components:** Lecture

- **Attributes:** University Course (University of Kentucky)
- **Campus:** BLC

**CS 221 (2) Course ID:000325**

**Characteristics of a procedure-oriented language; description of a computer as to internal structure and the principle and practice of computer programming, Covers principles of problem solving by computer and requires completion of a number of programming assignments.**

**Components:** Lecture

- **Attributes:** University Course (University of Kentucky)
- **Campus:** ECTC

**CS 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

**CS 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

**CS 298 (2) Course ID:000943**

**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

**CS 115 (3) Course ID:000321**

**Introduction to Computer Programming**

This course teaches introductory skills in computer programming using an object-oriented computer programming language. There is an emphasis on both the principle and practice of computer programming. Covers principles of problem solving by computer and requires completion of a number of programming assignments.

**Components:** Lecture

- **Attributes:** University Course (University of Kentucky)
- **Campus:** BLC

**CS 215 (4) Course ID:000719**

**Introduction to Program Design, Abstraction, and Problem Solving**

This course teaches introductory object-oriented problem solving, design, and programming engineering. An equally balanced effort will be devoted to the three main threads in the course: concepts, programming language skills, and rudiments of object-oriented programming and software engineering. Pre-requisites: CS 115. Lecture: 4.0 credits (60 contact hours).

**Components:** Lecture

- **Attributes:** University Course (University of Kentucky)
- **Campus:** BLC

**CS 221 (2) Course ID:000325**

**Characteristics of a procedure-oriented language; description of a computer as to internal structure and the principle and practice of computer programming, Covers principles of problem solving by computer and requires completion of a number of programming assignments.**

**Components:** Lecture

- **Attributes:** University Course (University of Kentucky)
- **Campus:** ECTC
CUL 200 (2) Course ID:004212
Sanitation and Safety
This course is designed to develop an understanding of the basic principles of sanitation and safety and to be able to apply them in the food service operations. Personal hygiene habits and food handling practices that protect the health of the consumer will be reinforced.
Components: Lecture

CUL 220 (4) Course ID:004218
Meats, Seafood, & Poultry
This course focuses on the identification of various cooking techniques for and the preparation of meats, seafood, and poultry. Prerequisite: CUL 100 and CUL 200. Prerequisite: CUL 211 or consent of the instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Laboratory, Lecture

CUL 270 (3) Course ID:004219
Human Relations Management
This course provides information necessary for the transition from student to a supervisory role in the Food and Beverage industry. Styles of leadership and skill development in human relations and personnel management are also covered.
Components: Lecture

CUL 280 (3) Course ID:004221
Cost and Control
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the areas of cost, control, purchasing and receiving. Pre-requisite: Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

CUL 285 (3) Course ID:004222
Front of the House
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. Lecture: 3 credits (45 contact hours).
Components: Lecture

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 credits (90 contact hours).
Components: Lecture

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

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 instructor; 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

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

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

DAH 113 (1) 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

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

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, DAS 120, and DAS 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

DAH 135 (2) Course ID:000334
Oral Radiology
Examines theory and clinical practice of oral radiographic methods. Presents history and development of x-ray radiation; properties and uses of x-ray radiation; radiation hygiene;
exposing, processing and mounting of introral 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

DHA 235 (2) Course ID:000336 Practice Management

Examines legal, ethical, and managerial aspects of the dental practice. Prerequisite: Dental Assisting: Minimum grade of C in DHA 101, DHA 121, DHA 135, DAS 120, and DAS 130. Dental Hygiene: Minimum grade of C in DHG 220 and DHG 226. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

DAS Dental Assisting

DAS 120 (6) Course ID:001253 Dental Assisting I

Stresses the preclinical/clinical application of foundational dental assisting skills. Prerequisite: Admission into the Dental Assisting Integrated Program. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours). Clinical: 2.0 credits (120 contact hours).

Components: Clinical, Laboratory, Lecture

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

DAS 220 (9) Course ID:001254 Dental Assisting II

Stresses the preclinical/clinical application of advanced dental assisting skills. Prerequisite: Minimum grade of C in DHA 101, DHA 121, DHA 124, DHA 135, DAS 120, and DAS 130. Lecture: 3.0 credits (45 contact hours), Laboratory: 2.0 credits (60 contact hours). Clinical: 4.0 credits (240 contact hours).

Components: Clinical, Laboratory, Lecture

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 (DADB). Provides students the opportunity to further develop professional growth plan. Pre-requisite: Minimum grade of C in DHA 101, DHA 121, DHA 124, DHA 135, DAS 120, and DAS 130. Lecture: 1.0 credit hour (15 contact hours).

Components: Lecture

DGD Digital Game and Simulation Design

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

DGD 132 (3) Course ID:005474 Introduction to 3D Graphics

Introduces 3D graphics. Pre-requisite: Computer literacy course or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

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

DGD 232 (3) Course ID:005476 3D Character Development

Develops realistic 3D characters with complete body structure. Prerequisite: DGD 132 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

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. Prerequisite: DGD 232 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

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

DGD 235 (3) Course ID:007069 3D Special Effects

Introduces digital 3D special effects including the four fundamental elements of air, fire, earth, and water. Prerequisite: DGD 231 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

DGD 236 (3) Course ID:007070 Game Engines I

Introduces students to configuring and using a multiplatform game engine to build 3D games and simulations. Prerequisite: DGD 132 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

DGD 237 (3) Course ID:007071 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. Prerequisite: DGD 236 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

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

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, DHG 121, DHG 124, DHG 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

DHG 132 (2) Course ID:004331 Dental Nutrition

Examines the disciplines of pharmacology and therapeutics as related to dental hygiene. Prerequisite: Minimum grade of C in DHG 101, DHG 121, DHG 124, DHG 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

DHG 134 (2) Course ID:006811 Dental Hygiene II

Examines 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: Minimum grade of C in DHG 101, DHG 121, DHG 124, DHG 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

DHG 136 (1) Course ID:000340 Periodontology

Focuses on the clinical, histological, and radiographic differences between healthy and unhealthy periodontal tissues. Prerequisite: Minimum grade of C in DHG 101, DHG 121, DHG 124, DHG 135, and DHG 120. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

DHG 220 (4) Course ID:000341 Clinical Dental Hygiene II

Focuses on providing comprehensive dental hygiene care in a clinical setting while emphasizing the treatment of periodontal and special needs patients. Prerequisite: Minimum grade of C in DHG 131, DHG 130, DHG 132, DHG 134, and DHG 136. Lecture: 2.0 credits (30 contact hours). Clinical: 2.0 credits (240 contact hours).

Components: Clinical, Lecture

DHG 221 (2) Course ID:004778 Local Anesthesia and Nitrous Oxide Sedation

Examines the disciplines of pharmacology and therapeutics as related to dental hygiene. Prerequisite: Minimum grade of C in DHG 101, DHG 121, DHG 124, DHG 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

DHG 226 (2) Course ID:000342 Advanced Periodontology

Focuses on providing comprehensive dental hygiene care in a clinical setting while emphasizing the treatment of periodontal and special needs patients. Prerequisite: Minimum grade of C in DHG 131, DHG 130, DHG 132, DHG 134, and DHG 136. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

DHG 230 (3) Course ID:000343 Dental Nutrition

Examines 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: Minimum grade of C in DHG 101, DHG 121, DHG 124, DHG 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

DHG 238 (2) Course ID:000344 Community Dental Health Issues

Examines 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: Minimum grade of C in DHG 101, DHG 121, DHG 124, DHG 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

DHP Dental Hygiene

DHP 120 (4) Course ID:004859 Dental Hygiene I

Examines 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: Minimum grade of C in DHG 101, DHG 121, DHG 124, DHG 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

Campus: BLC
Components: Laboratory, Lecture
Campus: BLC

DHP 122 (2) Course ID:006832

Dental Nutrition

Prepares basic principles of nutrition with emphasis on
nutritional counseling in relationship to dental health,
determinations of patient nutritional status, and application
to oral health and effects of nutritional deficiencies. Pre-
 requisite: 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: Laboratory, Lecture
Campus: BLC

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. Clinical: 1.0 credit (120 contact hours).
Components: Clinical, Lecture
Campus: BLC

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
Campus: BLC

DHP 135 (3) Course ID:004863

Dental Radiology

Presents the theory and clinical practice of oral
radiographic methods. Includes history and development
of x-ray properties and uses of x-ray; radiation; radiation
hazard; exposing, processing and mounting intraoral
and extraoral 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
Campus: BLC

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
Campus: BLC

DHP 220 (3) Course ID:004865

Dental Hygiene III

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. Clinical: 2.0 credits (240 contact hours). Discussion: 1.0 credit (15 contact hours).
Components: Clinical, Discussion
Campus: BLC

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 for discussion of innovative approaches to
serving populations 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
Campus: BLC

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 135and DHP 136) with a grade of “C” or
better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Campus: BLC

DHP 226 (2) Course ID:004867

Periodontics II

Provides for the continuation and expansion of the content
of Periodontics I. Emphasizes the role of the dental hygienist in the recognition of systematic implications as related to periodontal diseases and current advancements in the management of patients with periodontal disease. Introduces current surgical
therapies with discussion of supportive periodontal therapy.
Prerequisite: (DHP 130 and DHP 131 and DHP 135 and
DHP 136) with a grade of “C” or better. Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Campus: BLC

DHP 229 (2) Course ID:004850

Local Anesthesia

Includes common oral local anesthesia injection
techniques and the related background information are
addressed in this course. Subjects include: anatomic
considerations, armamentarium, basic injection techniques,
record keeping neurophysiology, related pharmacology,
patient evaluation, complications and contraindications.
The pharmacology, administration and contraindications
of Nitrous Oxide are also included. This elective course
satisfies the Kentucky State Dental Practice Act regarding
delegation of block and infiltration anesthesia and nitrous
oxide analgesia to dental hygienists. Prerequisite: (DHP
130 and DHP 131 and DHP 135 and DHP 136) with a grade of “C” or better. Laboratory: 1.25 credits (18.75 contact hours). Lab: .75 credit (45 contact hours).
Components: Laboratory, Lecture
Campus: BLC

DIT 103 (2) Course ID:001273

Preventive Maintenance Lab

Instruction on preventive maintenance practices, scheduled
procedures, documents, and O.T.R. required record
system and on determining the needs for repair.
Laboratory: 2.0 credits (90 contact hours).
Components: Laboratory

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

DIT 110 (3) 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

DIT 111 (2) Course ID:001275

Introduction To Diesel Engines Lab

Provides practical experience of concepts from DIT 110.
Corequisite: DIT 110. Laboratory: 2 credits (90 contact hours).
Components: Laboratory

DIT 112 (3) Course ID:001276

Diesel Engine Repair

Includes how to take a disassembled engine and evaluate
the condition of each component. Includes the identification
and use of 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, DIT 111 or ADX 150. ADX 151. Corequisite: DIT 113.
Lecture: 3 credits (45 contact hours).
Components: Lecture

DIT 113 (2) Course ID:001277

Diesel Engine Repair Lab

Provides practical experience of concepts from DIT 112.
Corequisite: DIT 112. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
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 safely and basic oxy-fuel cutting.
Components: Lecture

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

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, roll frames, idlers, roller supports, and mainframes. Corequisite: DIT 123
Components: Lecture

DIT 123 (3) Course ID:001281
Undercarriage Lab
Provides opportunities to troubleshoot and repair some parts of undercarriage systems and their components. These components include endless track, roller track, roll frames, idlers, roller supports, and mainframes. Lab: 3.0 credits (135 contact hours).
Components: Laboratory

DIT 140 (3) Course ID:001282
Hydraulics
Covers theory and operation of a complete hydraulic system. Corequisite: DIT 141. Lecture: 3 credits (45 contact hours).
Components: Lecture

DIT 141 (2) Course ID:001283
Hydraulics Lab
Provides for practical application of concepts taught in DIT 140. Corequisite: DIT 140. Laboratory: 2 credits (90 contact hours).
Components: Laboratory

DIT 150 (3) Course ID:001284
Power Trains
Covers theory and principles of power train systems, diagnosis and repair of components. Corequisite: DIT 151. Lecture: 3 credits (45 contact hours).
Components: Lecture

DIT 151 (2) Course ID:001285
Power Trains Lab
Provides for practical application of concepts taught in DIT 150. Corequisite: DIT 150. Laboratory: 2 credits (90 contact hours).
Components: Laboratory

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

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 connectors, standard and automatic transmissions, and drive lines.
Components: Laboratory

DIT 160 (3) Course ID:001288
Steering and Suspension
Covers theory and operation of steering and suspension systems. Corequisite: DIT 161. Lecture: 3 credits (45 contact hours).
Components: Lecture

DIT 161 (2) Course ID:001289
Steering and Suspension Lab
Provides for practical application of concepts taught in DIT 160. Corequisite: DIT 160. Laboratory: 2 credits (90 contact hours).
Components: Laboratory

DIT 180 (3) Course ID:001290
Brakes
Covers theory and operation of air and hydraulic braking. Corequisite: DIT 181. Lecture: 3 credits (45 contact hours).
Components: Lecture

DIT 181 (2) Course ID:001291
Brakes Lab
Provides practical experience of concepts from DIT 180. Corequisite: DIT 180. Laboratory: 2 credits (90 contact hours).
Components: Laboratory

DIT 190 (3) Course ID:001292
Electrical Systems for Diesel Equipment
Explores theory and operation of wiring circuits and battery service. Corequisite: DIT 191. Lecture: 3 credits (45 contact hours).
Components: Lecture

DIT 191 (2) Course ID:001293
Electrical Systems for Diesel Equipment Lab
Provides practical experience of concepts from DIT 190. Corequisite: DIT 190. Laboratory: 2 credits (90 contact hours).
Components: Laboratory

DIT 198 (1) Course ID:001297
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

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

DIT 298 (2) Course ID:001299
Practicum
The Practicum provides supervised on-the-job work experience related to the students education objectives. Students participating in the Practicum do not receive compensation. Prerequisite: Permission of Instructor
Components: Practicum

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: Digital Literacy

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

DLC Digital Literacy

DLT Dental Laboratory Technology

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 manual 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

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

DLT 112 (2) Course ID:004874
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

DLT 121 (2) Course ID:004875
Complete Dentures I
The basic principles of complete denture prosthodontics is presented including the fundamentals of arranging and contouring artificial dentures. Identification of oral landmarks and changes that occur in the edentulous patient are discussed. Emphasis is placed on identifying the purpose and use of custom trays, baseplates and occlusion rims. Laboratory procedures include fabricating custom trays, baseplates, occlusion rims, and a complete set of dentures. Prerequisite: Admission into the DLT Program. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture

DLT 122 (2) Course ID:004876
Complete Dentures II
Advanced principles of complete denture prosthodontics are presented including balanced, monoplane and lingualized occlusion. Emphasis is also placed on the considerations in the oral cavity that effect the success of removable prosthodontic 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
DMS 105 (13) Course ID:005941
Introduction to Cardiology
Provides an overview of anatomy and physiology and the electrophysiology of the cardiovascular system. Includes theory and application of the electrocardiogram, holter monitor, and stress test. Covers cardiac pharmacology, medical terminology, medical law and ethics, and patient care. Includes Cardiac Catheterization lab, Vascular Sonography, and Respiratory Care. Prerequisite: Admission to Cardiac Sonography Program. Lecture: 10.0 credits (150 contact hours). Clinical: 3.0 credits (180 contact hours).
Components: Clinical, Lecture

DMS 109 (7) Course ID:004392
Department Consent Required
Sonography I
Provides a study of diagnostic foundations of clinical medicine pertinent to abdominal, superficial structures, musculoskeletal and non-cardiac chest sonography. Includes obtaining the clinical history, interpretation of clinical laboratory test, the pathophysiologic effects of disease and anomalies, and normal/abnormal sonographic patterns. Includes a laboratory component for the practice and application of normal sonographic patterns, basic scanning techniques and protocol. with an emphasis on the demonstration of 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

DMS 112 (2) Course ID:006795
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 minimum 75 hour nursing assistant course. Lecture: 1.0 credit hour (15 contact hours), Lab: 1.0 credit hour (30 contact hours).
Components: Laboratory, Lecture

DMS 115 (6) Course ID:004395
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

DMS 116 (8) Course ID:006260
OB/GYN Sonography
Covers the study of the clinical applications within the sonographic specialties of obstetrics and gynecology. Includes related clinical symptoms and laboratory test, pathophysiologic effects of disease and anomalies, 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

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. 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: 7.0 credits (165 contact hours).
Components: Lecture

DMS 118 (6) Course ID:006262
Vascular Sonography 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 anomalies, 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

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 parameter characteristics, 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

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: Consent of Program Coordinator. Lecture: 6.0 credits (90 contact hours).

Components: Lecture

DMS 126 (3 - 4) Course ID:004394
Clinical Education I
Includes observation of all clinical duties performed in the ultrasound department. Covers 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

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

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 NAT 150 and CHE 140. Lecture/Lab: 7.5 credits (225 contact hours).

Components: Lecture

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 with minimum "C" grade or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

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 with minimum "C" grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

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 with minimum "C" grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

DMS 204 (2) Course ID:006266
Department Consent Required
Online Vascular Review
Provides a review of vascular sonography to prepare the student for the ARDS certification examination.

Includes activities and quizzes related to carotidovascular, intracranial, peripheral venous, peripheral arterial and abdominal vascular sonography. Prerequisite: Consent of Program Coordinator. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

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

DMS 206 (3) 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

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: 6.0 credits (270 contact hours).

Components: Lecture

DMS 217 (3) Course ID:006702
Basic Cardiac Ultrasound Technology
Provides review and practical application of ultrasonic and Doppler physics; cardiac anatomy, physiology, and pathophysiology; cardiac imaging: 2D, M-mode, Spectral and Color Doppler; and exam protocols. Pre-requisite: Applicants must be RDMS credentialed or graduate of an accredited sonography program or consent of a sonography program coordinator. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

DMS 230 (5 - 8) Course ID:004438
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: SONO 126 with minimum grade of "C". Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).

Components: Clinical

DMS 236 (8) 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

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

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

DMS 245 (8) 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

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: Lecture

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

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

DRE Developmental

DRE 019 (3) Course ID:000411
Individual Growth in Human Relations
A discussion course in which students are encouraged to investigate their own motives for being in school, their career plans, and any idiosyncrasies which they feel may interfere with successful accomplishment of their personal goals. Lecture: 3 hours.

Components: Lecture

ECEC Electrical and Computer Engineering

ECEC 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, impedance 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

Campus: ECTC
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 - Economics

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

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 - Economics

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 - Economics

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).

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).

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).

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).

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).

ECO 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. Lecture: 0.75 credit (11.25 contact hours).

ECO 2024 (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).

EDM Education

EDM 270 (3) Course ID:004011
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: EDP 202 and EDU 201. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

EDP Educational and Counseling Psychology

EDP 202 (3) Course ID:000452
Human Development and Learning
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: PSY 100 or PSY 110. Lecture: 3 credits (45 contact hours).
Components: Lecture

EDP 203 (3) Teaching Exceptional Learners in Regular Classrooms
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

EDU Education

EDU 110 (3) Orientation to Education
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

EDU 120 (3) Course ID:004450
Child and Adolescent Development
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

EDU 130 (3) Course ID:004449
Introduction to Special Education
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).

EDU 140 (3) Course ID:004448
Introduction to Behavior Management
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. Lecture: 3.0 credits (45 contact hours).

EDU 150 (3) Course ID:004447
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

EDU 201 (3) Course ID:000451
Introduction to American Education
Present an introduction to teaching including teaching as a profession, major educational philosophies, social reforms, trends and issues in education, curriculum and instruction. Requires a minimum of 15 clock hours of field observation in an approved educational setting. Prerequisite: ENG 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

EDU 204 (3) Course ID:000457
Technology in the Classroom
Provides the student with a fundamental understanding of the uses of microcomputers in instruction and instructional management. Explores the methods of using multi-media in the classroom, designing web pages, and optimizing the use of current technology to enhance their instructional ability as an educational organization. Prerequisite: CIS 100 or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

EDP Educational and Counseling Psychology

EDP 202 (3) Course ID:000452
Human Development and Learning
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: PSY 100 or PSY 110. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Descriptions

EDU 240 (3)  Course ID:002279
Elementary and Middle School Literature
Surveys both traditional and modern literature for children and adolescents. Emphasizes selection, evaluation, storytelling, and the use of media to meet the literary needs and interests of children from preschool through middle school. Requires fifteen hours of field observation. Prerequisite: ENG 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

EDU 270 (3)  Course ID:004551
Elementary School Literature
Surveys traditional and modern literature for elementary school children. Emphasizes selection, evaluation, storytelling, and use of media to meet the literary needs and interests of children. Requires a minimum of 15 clock hours of field observation in an approved educational setting. Prerequisite: ENG 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

EDU 280 (3)  Course ID:004446
Education Internship/Co-Op
Provides a capstone experience for the AAS degree in Education, designed to integrate program competencies and curriculum to create a cumulative portfolio to demonstrate professional abilities. Requires 150 hours of field work. Pre-requisite: All program courses or Consent of Coordinator. Lecture: 1 credit (15 contact hours); Practicum/Co-op: 2 credits (150 contact hours).
Components: Co-Op, Lecture, Practicum

EDU 299 (3)  Course ID:004445
Selected Topics in Education
Addresses various education topics, issues and trends. 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: 3.0 credits (45 contact hours).
Components: Lecture

EE  Electrical Engineering

EE 211 (4)  Course ID:000454
Circuits I
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

EES Electronics

EES 101 (2)  Course ID:001332
Basic Electronics
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

EET Electrical Technology

EET 148 (3)  Course ID:001354
Electronic Drafting
Presents drafting techniques applicable to electronics equipment, and provides a review of electrical/electronic symbols and the devices that the symbols represent. Layout and drafting for printed circuits are stressed. The focus is on producing final drawings from engineering sketches and from the actual layout of printed circuit boards.
Components: Lecture

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: ([ENGT 110 and ENGT 114] with a minimum of C) or Consent of Electrical Technology program advisor(s). Corequisite: EET 151. Lecture: 2 credits (30 contact hours).
Components: Lecture

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: ([ENGT 111 and ENGT 113 and ENGT 115 and ENGT 117] with a minimum grade of C) or consent of Electrical Technology program advisor(s). Corequisite: EET 150. Laboratory: 1 credit (30 contact hours).
Components: Laboratory

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

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

EET 198 (2)  Course ID:001361
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

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, protection from 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 to avoid 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

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

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

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
Components: Lecture

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

EET 264 (2)  Course ID:001419
Rotating Machinery
Focuses on the underlying 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

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 and compliance with the National Electrical Code standards. Prerequisite: ([ENGT 111 and ENGT 113 and ENGT 115 and ENGT 117] with a minimum grade of C or greater) or consent of Electrical Technology program advisor(s). Corequisite: EET 264. Laboratory: 2 credits (60 contact hours).
Components: Laboratory

EET 266 (3)  Course ID:001421
Rotating Machinery and Transformers
Focuses on the principles of operation, application and maintenance of single-phase and three-phase AC transformers, motors and alternators, and DC motors and generators. A study of and compliance with the current National Electric Code standards will insure safe installation methods. Prerequisite: ([EET 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

EET 267 (3)  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, and DC motors and generators. A study of and compliance with the current National Electric Code standards will insure safe installation methods. Prerequisite: Consent of Instructor or EET 108. Corequisite: EET 269.
Components: Lecture

EET 268 (3)  Course ID:001423
Rotating Machinery Electrical Motor Controls I
This course covers 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 lockouts are also included. Prerequisite: Consent of Instructor or EET 108. Corequisite: EET 269.
Components: Lecture

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 lockouts are included. Prerequisite: ([ENGT 111 and ENGT 113 and ENGT 115 and ENGT 117] with a minimum grade of C) or consent of Electrical Technology program advisor(s). Corequisite: EET 269. Laboratory: 4 credits (120 contact hours).
Components: Laboratory

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 lockouts are also included. Prerequisite: Consent of Instructor or EET 108. Corequisite: EET 271.
Components: Lecture
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 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: EET 270. Corequisite: EET 272.
Components: Laboratory

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

EET 273 (2)  Course ID:001428
Electrical Motor Controls II Lab
This course 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: EET 270. Corequisite: EET 272.
Components: Laboratory

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: Consent of Instructor or EET 108. Corequisite: EET 275.
Components: Lecture

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: [ENG 111 and ENG 113 and ENG 115 and ENG 117] with a minimum grade of C or consent of Electrical Technology program advisor(s). Corequisite: EET 274. Laboratory: 4 credits (120 contact hours).
Components: Laboratory

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: [ENG 111 and ENG 113 and ENG 115 and ENG 117] and EET 265 and EET 271 and EET 273) with a minimum grade of C or consent of Electrical Technology program advisor(s). Corequisite: EET 276. Laboratory: 2 credits (60 contact hours).
Components: Laboratory

EET 281 (1)  Course ID:001435
Special Problems I
A course designed for the student who has demonstrated specific special needs. Prerequisite: Permission of Instructor
Components: Laboratory

EET 283 (2)  Course ID:001436
Special Problems II
A course designed for the student who has demonstrated specific special needs. Prerequisite: Permission of Instructor
Components: Laboratory

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

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

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

EET 299 (1 - 8)  Course ID:001439
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

EGY 170 (4)  Course ID:006822
Energy Utility Technologies
Introduces students to the technologies used in energy utility companies, including line maintenance, underground operations, substations and switchyards and transmission operations. Gives students the opportunity to climb a utility pole and conduct basic maneuvers. Addresses types of underground systems, substations and switchyard equipment and transmission structures. Emphasizes electrical, underground, line maintenance and transmission safety. Pre-requisite: (EET 110 and EET 150 and EET 151) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

EGY 220 (4)  Course ID:006823
Energy Efficiency Electrical Controls
Designed for Electrical Technology students and Apprentice, Journeyman, 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: (EET 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

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: (EET 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

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

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
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

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. Includes 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).

ELT 105 (3)  Course ID:005591
Computer Maintenance Essentials
Introduces basic computer hardware and operating systems, computer applications 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

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

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: 5 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

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

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

ELT 118 (3)  Course ID:000566
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

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

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/seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Co-requisite: ELT 124. Lecture: 3.0 credit (45 contact hours).
Components: Lecture

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/seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Co-requisite: ELT 122. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

ELT 201 (4)  Course ID:000603
Statics and Strength of Materials
Introduces static 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 or 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

ELT 205 (3)  Course ID:005592
Advanced Computer Maintenance
Introduces advanced tasks such as installing, building, repairing, configuring, troubleshooting, optimizing diagnosing and preventive maintenance in the context of the field service or enterprise environment. This course is appropriate for those who work, or plan to work, in a mobile or corporate environment, or hold a position characterized by a high-level of in-person customer interaction. This course maps closely to the CompTIA A+ application examination. Prerequisite: ELT 105 or IT 105. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

ELT 208 (3)  Course ID:000608
Thermodynamic Applications
Introduces thermodynamic laws and their application to devices operating on the basis of thermodynamic principles. Commonly used cycles and fluids are identified. Prerequisite: PHY 211 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

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

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

ELT 220 (3)  Course ID:004645
Digital II
Provides theory and application of advanced digital logic methods. Includes small and medium scale integrated circuits, computer families, interfacing techniques, arithmetic-circuit, 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

ELT 222 (3)  Course ID:004648
Basic Telecommunications Installation and Maintenance
Provides an overview of concepts needed to complete the duties of a telecommunications service technician and provide the foundational basic skills and knowledge required to effectively perform the installation and maintenance job duties and functions. Introduces fiber optic transmissions and cable repair. Prerequisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

ELT 226 (2)  Course ID:000469
Safety in the Workplace
Stresses responsible handling of hazardous materials, safe driving skills, first aid basics, and coping skills for various situations which may be encountered in the workplace. Lecture: 2.0 credits (30 contact hours).
Components: Lecture

ELT 232 (3)  Course ID:000623
Computer Software Maintenance
Includes maintenance of the personal computer and an emphasis on installation, upgrading, and deinstallation 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 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
ELT 234 (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

ELT 240 (6) Course ID:004650
Communications Electronics
Provides the theory of AM and FM, RF communications, transmission, reception, multiplexing, and modern data communications. Prerequisite: (ELT 229 and ELT 214) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

ELT 243 (3) Course ID:000640
Electric Power Distribution
Introduces methods used in interior electric power distribution for commercial and industrial loads of heat, light and power, and requirements of National Electric Code. Prerequisite: ELT 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

ELT 244 (4) Course ID:000644
Electrical Machinery and Controls
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

ELT 250 (4) Course ID:000657
Programmable Logic Controllers
Covers the 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

ELT 256 (4) Course ID:000671
Microprocessor Fundamentals
Places emphasis on the architecture of microprocessor systems, practical application of microprocessor technology, and troubleshooting techniques. Covers analysis of the principles and techniques used in microprocessor controlled electronic systems. Prerequisite: ELT 120 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

ELT 260 (5) Course ID:004652
Robotic and Industrial Automation
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

ELT 261 (3) Course ID:000679
Instrumentation and Measurements
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

ELT 262 (4) Course ID:000682
Measurement and Instrumentation
Covers the principles and techniques of measurement. Emphasizes the collection interpretation, and presentation of data; error analysis; capabilities and limitations of standard measurement instruments; and instrumentation in process control. Prerequisite: ELT 114 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

ELT 264 (4) Course ID:000691
Mechanical Design
Covers study techniques associated with the design of machine elements, including structural members subjected to combined stresses resulting from shear or torsion coupled with axial and bending loadings. Includes material treatments, failure theories, failure prevention, and steady and variable (fatigue) elements, including rotating shafts, pressure vessels, power screws, and attachment schemes. Prerequisite: (ELT 201 and PHY 211) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

ELT 289 (1) Course ID:006806
Engineering and Electronics Technology Capstone
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 120 and ELT 210) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ELT 290 (1 - 4) 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 with different topics to a maximum of eight credit hours. Prerequisite: Consent of instructor. Lecture: 1-4 hours (15-60); Laboratory: 0-3 hours (0-45).
Components: Laboratory, Lecture

ELT 295 (1 - 2) Course ID:000746
Independent Problems
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

ELT 1071 (0.8) Course ID:005666
Computer Basics
Introduces computer applications commonly used in technical occupations. Covers basic hardware and software and the operating system. Lecture: 0.2 credits (3 contact hours), Lab: 0.6 credits (18 contact hours).
Components: Laboratory, Lecture
ELT 1141 (1) Course ID:005643
Circuit Analysis
Addresses theory and application of complex alternating current and direct current circuits. Reviews AC basics, inductive, and capacitive reactance. Prerequisite: [ELT 110 or (ELT 1105 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 1142 (1) Course ID:005644
Complex Circuit Analysis
Addresses theory and application of complex alternating current and direct current circuits. Emphasizes circuit analysis using Thevenin, Norton, superposition, Branch, Node and Mesh analysis. Prerequisite: (ELT 1141 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 1143 (1) Course ID:005645
RC, RL, and RLC Circuits
Addresses theory and application of complex alternating current and direct current circuits. Emphasizes impedance, reactance, power, and electrical energy. Prerequisite: (ELT 1141 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 1144 (1) Course ID:005646
Resonance and Filters
Addresses theory and application of complex alternating current and direct current circuits. Emphasizes resonance and filters. Prerequisite: (ELT 1143 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 1145 (1) Course ID:005647
3-Phase Circuits
Addresses theory and application of complex alternating current and direct current circuits. Emphasizes 3-phase circuits. Prerequisite: (ELT 1143 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 1201 (1) Course ID:005648
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 methodologies 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

ELT 1203 (1) Course ID:005650
Logic Circuit Components and Troubleshooting
Covers construction, troubleshooting and testing of logic 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

ELT 2101 (0.2) Course ID:005651
Semiconductor basics
Covers devices, specifically basic semiconductor theory. Prerequisite: (ELT 110 with a grade of C or better) or Consent of Instructor: Lecture: 0.2 credits (3 contact hours).

Components: Lecture

ELT 2102 (1.25) Course ID:005652
Diode circuits and power supplies
Covers devices, specifically: diodes, zener diodes, basic diode circuits, and power supplies. Prerequisite: (ELT 2101 with a grade of C or greater) or Consent of Instructor: Lecture: 1.0 credit (15 contact hours). Lab: 0.25 credits (7.5 contact hours).

Components: Laboratory, Lecture

ELT 2103 (1.5) Course ID:005653
Transistors and Amplifiers
Covers devices, specifically: transistors, amplifiers and their characteristics, amplifier classes, and modeling of active devices. Prerequisite: (ELT 2102 with a grade of C or greater) or Consent of Instructor: Lecture: 1.0 credit (15 contact hours). Lab: 0.5 credits (15 contact hours).

Components: Laboratory, Lecture

ELT 2104 (1.05)
Design of Electronic Circuits
Covers devices, specifically: design, modify, and troubleshoot prototype circuits. Prerequisite: (ELT 2102 with a grade of C or greater) or Consent of Instructor: Lecture: 0.8 credits (12 contact hours). Lab: 0.25 credits (7.5 contact hours).

Components: Laboratory, Lecture

ELT 2141 (0.3) Course ID:005655
Thyristors
Covers devices, specifically thyristor circuits. Prerequisite: ([ELT 210 or 2104] with a C or greater) or Consent of Instructor: Lecture: 0.2 credits (3 contact hours). Lab: 0.1 credits (3 contact hours).

Components: Laboratory, Lecture

ELT 2142 (0.8)
On Amps
Covers devices, specifically op amp circuits and feedback. Prerequisite: ([ELT 210 or 2104] with a C or greater) or Consent of Instructor: Lecture: 0.6 credits (9 contact hours). Lab: 0.2 credits (6 contact hours).

Components: Laboratory, Lecture

ELT 2143 (0.8)
FET Circuits
Covers devices, specifically FET and MOSFET circuits. Prerequisite: ([ELT 210 or 2104] with a C or greater) or Consent of Instructor: Lecture: 0.6 credits (9 contact hours). Lab: 0.2 credits (6 contact hours).

Components: Laboratory, Lecture

ELT 2144 (0.7)
Advanced Transistor Amplifier Circuits
Covers devices, specifically single and multi-stage transistor amplifier circuits. Prerequisite: (ELT 2143 with a C or greater) or Consent of Instructor: Lecture: 0.5 credits (7.5 contact hours). Lab: 0.2 credits (6 contact hours).

Components: Laboratory, Lecture

ELT 2145 (0.7)
Power Supply Regulator Circuits
Covers devices, specifically power supply regulator circuits. Prerequisite: ([ELT 210 or 2104] with a C or greater) or Consent of Instructor: Lecture: 0.5 credits (7.5 contact hours). Lab: 0.2 credits (6 contact hours).

Components: Laboratory, Lecture

ELT 2146 (0.7)
Oscillators
Covers devices, specifically oscillators. Prerequisite: ([ELT 2142 or 2143] with a C or greater) or Consent of Instructor: Lecture: 0.6 credits (9 contact hours). Lab: 0.1 credits (3 contact hours).

Components: Laboratory, Lecture

ELT 2201 (0.8) Course ID:005661
Medium Scale Integrated Circuits
Covers digital circuits, specifically medium scale integrated circuits such as counters, simple ALUs, and registers. Prerequisite: ([ELT 120] or [ELT 1201 and 1202 and 1203]) with a grade of C or better) or Consent of Instructor: Lecture: 0.5 credits (7.5 contact hours). Lab: 0.3 credits (9 contact hours).

Components: Laboratory, Lecture

ELT 2202 (0.9)
Interfacing of Digital Circuits
Covers digital circuits, specifically common interfacing techniques used with digital circuits. Prerequisite: ([ELT 120] or [ELT 1201 and 1202 and 1203]) with a grade of C or better) or Consent of Instructor: Lecture: 0.3 credits (4.5 contact hours). Lab: 0.2 credits (6 contact hours).

Components: Laboratory, Lecture

ELT 2203 (0.2) Course ID:005663
Logic Families
Covers digital circuits, specifically the different logic families. Prerequisite: ([ELT 120] or [ELT 1201 and 1202 and 1203]) with a grade of C or better) or Consent of Instructor: Lecture: 0.2 credits (3 contact hours).

Components: Lecture

ELT 2204 (0.7)
Programmable Devices
Covers digital circuits, specifically common programmable devices. Prerequisite: ([ELT 120] or [ELT 1201 and 1202 and 1203]) with a grade of C or better) or Consent of Instructor: Lecture: 0.5 credits (7.4 contact hours). Lab: 0.2 credits (6 contact hours).

Components: Laboratory, Lecture

ELT 2205 (0.8) Course ID:005665
Microprocessors
Covers digital circuits, specifically microprocessors and basic work-cells. Prerequisite: ([ELT 2202] with a grade of C or better) or Consent of Instructor: Lecture: 0.8 credits (12 contact hours).

Components: Laboratory, Lecture

ELT 2601 (1) Course ID:005709
Fundamentals of Robots
Introduces the theory of robots. Covers robot types, systems, history, geometry and basic robot safety. Prerequisite: Consent of instructor. Lecture: 0.6 (9 contact hours). Lab: 0.4 credits (12 contact hours).

Components: Laboratory, Lecture

ELT 2602 (1) Course ID:005710
Robot Programming
Introduces the theory of robots. Covers on-line and off-line robot programs and preventive maintenance. Pre-requisite: (ELT 2601 with a grade of C or better) or Consent of Instructor: Lecture: 0.6 (9 contact hours). Lab: 0.4 credits (12 contact hours).

Components: Laboratory, Lecture

ELT 2603 (1) Course ID:005711
Automated Work-cells
Introduces the theory of robots. Covers sensors and basic work-cells. Prerequisite: ([ELT 2602] 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 2604 (1) Course ID:005712
Flexible Manufacturing
Introduces the theory of robots. Covers the theory and operation of flexible and computer-integrated manufacturing and control systems. Prerequisite: ([ELT 2603] 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 2605 (1) Course ID:005713
Manufacturing Applications
Introduces the theory of robots. Covers manufacturing applications of robotic systems including case studies and cost/benefit analysis. Prerequisite: (ELT 2604 with a grade of C or better) or Consent of Instructor: Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credit (12 contact hours).

Components: Laboratory, Lecture

EM Engineering Mathematics

EM 221 (3) 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 213.

Components: Lecture
EMS 105 (6) 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. Focuses on basic anatomy and physiology, scene and patient assessment, airway and ventilation, cardiovascular and body systems support, motion limiting devices, wound and fracture management, administration of basic patient medications, extirication, transportation, and patient monitoring as well as medico-legal 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 card; card must be at the basic life support healthcare provider or professional rescue level. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture

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, critical 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

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 appropriate anatomy and physiology, medical terminology, and ethical and legal behaviors. Pre-requisite: EMS 200. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

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 (90 contact hours).
Components: Laboratory

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 field 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 ambulance and field setting and the emergency department. Pre-requisite: EMS 211. Clinical: 1.0 credit (60 contact hours).
Components: Clinical

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 pharmacological and electrical interventions. Pre-requisite: EMS 210 and EMS 211. Co-requisite: EMS 221. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

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

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 being the team leader delivering 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

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

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

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

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

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

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

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 basic conventions of extrication, and minimize the associated risks related to terrorism and disaster. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

EMS 275 (1) Course ID:007318
Seminar in Advanced Life Support (ALS)
Presents 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

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

ENC English Composition

ENC 90 (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. Strengths include an introduction to standard English as these apply to students own work as well as the use of technology to produce and share writing. Pre-requisite: Placement by KCTCS assessment and placement policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules

ENC 91 (3) Course ID:000465
Foundations of College Writing II
Applies writing as a process with instruction in intermediate writing skills and technology. Strengths include organization, idea development through critical thinking, and editorial improvement through multi-paragraph writings. Introduces basic research and documentation processes in response to reading. Pre-requisite: Placement by KCTCS Assessment and Placement policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules
ENC 92 (1) Course ID:000466
Writing Laboratory
The writing laboratory may supplement the concurrent composition course. It is designed to provide individual assistance in meeting students' specific writing needs. Laboratory: 2 hours.
Components: Laboratory

ENC 99 (1) Course ID:002355
Writing Lab for English 101 ESL Students
The writing lab will supplement the ENG 101 writing/grammar course. It is designed to provide more time to meet the grammar/writing needs of ESL students. Prerequisite: ENC 097 or assessment placement.
Components: Lecture

ENC 901 (0.75) 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

ENC 902 (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 (2.75 contact hours)
Components: Lecture

ENC 903 (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

ENC 904 (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

ENC 911 (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 0901. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

ENC 912 (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 0901. Lecture: 1 credit (15 contact hours)
Components: Lecture

ENC 913 (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: 0.25 credits (3.75 contact hours). Components: Lecture

ENC 914 (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
ENG 232 (3) Course ID:004903
Literature and Place (Subtitle required)
Exposes 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. Consider student writing. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, AH - Humanities

ENG 233 (3) Course ID:004904
Literature and Identities (Subtitle required)
Exposes 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, AH - 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 multilingual, diverse sociocultural/historical analysis and discussion of texts by women writers. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, AH - 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, AH - 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, AH - Humanities

ENG 261 (3) Course ID:000487
Introduction to Film
Introduces the study of movies as a narrative art and a cultural document. Requires viewing of films outside of class. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: HUM 281
Attributes: AH - Arts and Humanities, AH - Humanities

ENG 262 (3) Course ID:000489
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, AH - Humanities

ENG 264 (3) Course ID:000490
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: Cultural Studies, AH - Arts and Humanities, AH - 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: AH - Arts and Humanities, AH - Humanities

ENG 271 (3) Course ID:000493
The New Testament as Literature
Surveys the major types of New Testament literature in English translation. Examines historical backgrounds while emphasizing careful analysis of literary forms and technique. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, AH - Humanities

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. Prerequisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: HUM 281
Attributes: AH - Arts and Humanities, AH - Humanities

ENG 282 (3) Course ID:005429
International Film Studies
Enhances student awareness of how cinema has been used as a multicultural tool for observing/analyzing various aspects of a broad range of societies. Includes critical analysis and interpretation of films from various cultures. Explores the films' countries of origin and the cinematic impacts upon the society and the world. Lecture: 3 credits (45 contact hours).
Components: Lecture

ENG 299 (1 - 3) Course ID:005345
Special Topics in English
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

ENG 1011 (0.75) Course ID:005787
Writing a Profile Essay
Focuses on academic writing. Provides instruction in drafting, revising and editing essays which are limited to, individual authors, specified genres, and defined eras. Prerequisite: ENG 101 or consent of instructor. Lecture: 0.75 credits (11.25 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 1014. 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

ENG 1023 (1) Course ID:005793
Research and Argument
Focuses on academic 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

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 needed to provide the CEWD (Energy Industry Fundamentals Certification exam. Lecture/Lab: 9.0 credits (150 contact hours).
Components: Lecture

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

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

ENM 200 (9) 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

ENM 200 (3) Course ID:007220
Certified Energy Practitioners (NABCEP) Entry Level Solar Certification. Lecture/Lab: 9.0 credits (150 contact hours).
Components: Lecture

ENM 200 (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 needed to provide the CEWD (Energy Industry Fundamentals Certification exam. Lecture/Lab: 9.0 credits (150 contact hours).
Components: Lecture

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 needed to provide the CEWD (Energy Industry Fundamentals Certification exam. Lecture/Lab: 9.0 credits (150 contact hours).
Components: Lecture

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

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

ENM 200 (9) 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

ENM 200 (3) Course ID:007220
Certified Energy Practitioners (NABCEP) Entry Level Solar Certification. Lecture/Lab: 9.0 credits (150 contact hours).
Components: Lecture
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

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

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

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

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 or in successful completion of ACC 201 and ECO 201, or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture

EQM 242 (3) Course ID:004758
Equine Law
This course explores the value of legal documents as they relate to commercial and recreational 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 267, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

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

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

EQS 101 (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

EQS 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

EQS 111 (1) 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

EQS 112 (4) Course ID:005352
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, turn and in straddle. 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. EQS 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

EQS 113 (4) Course ID:005353
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

EQS 121 (1) Course ID:005487
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

EQS 122 (3) Course ID:005498
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
EQS 123 (3) Course ID: 005499
Breaking and Preparing Two-Year Olds
Covers basics of managing racehorses through their 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
EQS 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
EQS 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
EQS 212 (3) Course ID: 005503
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
EQS 213 (2) Course ID: 005504
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
EQS 215 (3) Course ID: 005505
Life Skills for Jockeys
Prepares student for life as a professional jockey. Includes integration of principles of nutrition into an eating plan that will maintain weight and health. Introduces concepts of practical financial management, insurance and retirement planning on a jockey’s salary. Ties together basic riding skills with interpersonal skills necessary for a successful life as a professional jockey. Prerequisite: EQS 212 and permission of instructor. Corequisite: EQS 212. Lecture: 3 credits (45 contact hours).
Components: Lecture
EQS 223 (4) Course ID: 005507
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 (150 contact hours).
Components: Lecture
EQS 240 (3) Course ID: 007322
Equine Legal and Business Principles
Provides legal insights and practical tips for a successful horse business. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
EQS 299 (1 - 9) Course ID: 005626
Equine Studies 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. While the maximum amount of credit granted for Equine cooperative Education experience varies by curriculum, the amount may never exceed nine hours in Associate in Applied Science Degree, diploma, or certificate program. Is available only to students enrolled in Associate in Applied Science in Equine Sciences, Equine Studies Diploma and certificate program that list Equine Cooperative Education as an approved course. Prerequisite: Consent of Instructor. Co-op: 1.0 - 9.0 credits (60 - 540 contact hours).
Components: Co-Op
Campus: BLC
ESL English as a Second Language
ESL 10 (4) Course ID: 006638
Introduction to Reading and Vocabulary
High-beginning level students will improve fundamental reading skills and expand vocabulary as they interact with level-appropriate texts. Students will be recommended to this course based on the ESL placement examination.
Components: Lecture
Campus: BLC
ESL 12 (4) Course ID: 005230
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 compreohnsion 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
ESL 13 (4) Course ID: 005307
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
ESL 20 (4) Course ID: 005216
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
ESL 30 (4) Course ID: 005078
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
ESL 31 (3) Course ID: 004037
Beginning Conversation for Non-Native English Speakers
Beginning level ESL students will learn basic conversation and practice basic sounds and intonation patterns.
Components: Lecture
ESL 32 (3) Course ID: 004038
Low-Intermediate Conversation Non-Native English Speakers
Low intermediate level ESL students will continue to acquire basic conversationals basic/directive vocabulary and continue to have practice in the pronunciation of basic sounds and intonation patterns. Prerequisite: ESL 31 or placement test.
Components: Lecture
ESL 33 (3) Course ID: 004039
High-Intermediate Conversation for Non-Native English Speakers
High-intermediate level ESL students will acquire the most practical and widely used American idioms and verbal phrases. In addition, students will become more familiar with North American Culture and will be able to prevent cultural misunderstandings. Non-native English speakers will continue to improve reading, listening comprehension and pronunciation skills. Prerequisite: ESL 032 or placement test.
Components: Lecture
ESL 41 (3) Course ID: 004040
Beginning Vocabulary for Non-Native English Speakers
Beginning-level ESL students will learn new vocabulary systematically, through presentation and practice of terms grouped in lexical sets, and will develop a problem-solving approach to vocabulary learning.
Components: Lecture
ESL 42 (3) Course ID: 004041
Low-Intermediate Vocabulary Non-Native English Speakers
Low-intermediate level ESL students continue to learn new vocabulary pertaining to a wide range of contexts. Systematic approach to vocabulary learning is applied: grammatical knowledge and sensitivity to collocations and usage are incorporated. Prerequisite: ESL 41 or placement test.
Components: Lecture
ESL 43 (3) Course ID: 004042
High-Intermediate Vocabulary for Non-Native English Speakers
High-intermediate students will expand receptive and productive vocabulary as they read, listen to, summarize, paraphrase, respond to, and discuss items from newspapers and other media. Prerequisite: ESL 42 or placement test.
Components: Lecture
ESL 51 (3) Course ID: 004043
Introduction to College Reading for Non-Native English Speakers
Beginning-level students will acquire or strengthen fundamental reading skills and expand vocabulary as they interact with level-appropriate texts.
Components: Lecture
ESL 52 (3) Course ID: 004044
Improved College Reading for Low-Intermediate Non-native English Speakers
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: ESL 51.
Components: Lecture
Begning 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

ESL 62 (4) Course ID:004047 Foundations of College Writing II for 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

ESL 63 (4) Course ID:004048 Foundations of College Writing III for Non-Native English Speakers

ESL 63 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. Grammar instruction includes advanced grammatical points, such as modal auxiliaries, gerunds, infinitives, adjective and noun clauses. Prerequisite: ESL 62 or placement test.

Components: Lecture

ESL 71 (3) Course ID:007210 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

ESL 72 (3) Course ID:007046 College Writing II for Non-Native Speakers

Introduces writing modes, including description, narration, comparison and contrast, cause and effect, process, and persuasion; presents methods of pre-writing; emphasizes development of thesis statements, topic support, and organization; short essay organization is emphasized. A student cannot receive credit for both ESL 62 and ESL 72. Pre-requisite: Currently appropriate assessment scores and a writing sample or completion of ESL 71. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

ESL 81 (3) Course ID:007211 College Grammar I for Non-Native Speakers

Introduces basic verb tenses, formation of questions, modals, clauses, 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

ESL 82 (3) Course ID:007047 College Grammar II for Non-Native Speakers

Introduces intermediate-level 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. A student cannot receive credit for both ESL 82 and ESL 62. Pre-requisite: Currently appropriate assessment scores or completion of ESL 81. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

ESP 101 (3) Course ID:005324 Introduction to Energy Systems

Introduces energy generating systems including solar, wind, bioenergy, geothermal, hydrogen, hydrogen-based, petroleum-based, coal, and nuclear. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

ESP 110 (3) Course ID:005491 Petroleum Based Fuels

Introduces major petroleum based fuels including energy content, uses, availability, distribution methods, storage, and future impact of each fuel. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

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

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

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

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

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

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

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 ejectors, 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

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

ESP 280 (3) Course ID:005496 Capstone in Energy Systems

Serves as the capstone course for the Energy Systems program by integrating prior learning into a single integrated learning experience. Requires planning, research, and completion of both individual and team-based reports based on real-world problems or projects in the Energy Systems field. Prerequisite: ESP 213. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST 150 (4)</td>
<td>Environmental Science Technology Introductory Ecology</td>
<td>This course introduces the students to the basic concepts in ecology and application of those concepts to current environmental issues. Topics include: the relationships between organisms and the environment; factors that influence distribution and abundance of organisms; population structure and regulation; energy flow, nutrient cycling, and community development, structure, and response to disturbance. A weekly 2 hour laboratory will provide field and laboratory experiences for the students. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours). Prerequisite: BIO 103 and BIO 111 or equivalent.</td>
</tr>
<tr>
<td>EST 160 (3)</td>
<td>Hydrological Geology</td>
<td>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).</td>
</tr>
<tr>
<td>EST 170 (2)</td>
<td>Environmental Sampling Laboratory</td>
<td>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, ground water, and benthic invertebrates. Laboratory: 2 credits (60 contact hours). Prerequisite: EST 150 or consent of instructor.</td>
</tr>
<tr>
<td>EST 220 (3)</td>
<td>Pollution of Aquatic Ecosystems</td>
<td>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).</td>
</tr>
<tr>
<td>EST 225 (3)</td>
<td>Freshwater Invertebrates</td>
<td>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 biometric data used to infer stream quality. Prerequisite: EST 150.</td>
</tr>
<tr>
<td>EST 230 (2)</td>
<td>Aquatic Chemistry Laboratory</td>
<td>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.</td>
</tr>
<tr>
<td>EST 240 (4)</td>
<td>Sources and Effects of Air Pollution</td>
<td>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.</td>
</tr>
<tr>
<td>EST 250 (3)</td>
<td>Solid and Hazardous Waste Management</td>
<td>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 160, or consent of instructor. Lecture: 3 credits (45 contact hours).</td>
</tr>
<tr>
<td>EST 260 (2)</td>
<td>Environmental Analysis Laboratory</td>
<td>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.</td>
</tr>
<tr>
<td>EST 270 (3)</td>
<td>Environmental Law and Regulation</td>
<td>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).</td>
</tr>
<tr>
<td>EST 280 (1)</td>
<td>Environmental Trends Seminar</td>
<td>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 181 or COM 252, EST 170, EST 220, EST 260, and EST 250 or consent of instructor. Lecture: 1 credit (15 contact hours).</td>
</tr>
<tr>
<td>EST 299 (1 - 3)</td>
<td>Selected Topics in Environmental Science Technology</td>
<td>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).</td>
</tr>
<tr>
<td>ETE 285 (1 - 4)</td>
<td>Independent Problems</td>
<td>A problem or special project, approved by instructor, which provides an objective for independent study for electrical engineering technology students. This course may be repeated four times or to a maximum of 6 credit hours. Prerequisite: Consent of Instructor. Lecture: variable, laboratory: variable.</td>
</tr>
<tr>
<td>ETE 255 (1 - 4)</td>
<td>Voice &amp; Data Installer Level I</td>
<td>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 telecommunication installation experience. Prerequisite: Basic physics/electricity courses are recommended but not required. Lecture: 4 credits (75 contact hours).</td>
</tr>
<tr>
<td>ETE 100 (4)</td>
<td>Basic Electrical Theory: Telenetworking</td>
<td>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 analyze the operation of AC and DC circuits. Lecture: 3 credits (45 contact hours).</td>
</tr>
<tr>
<td>ETE 111 (3)</td>
<td>Basic Electrical Theory Lab</td>
<td>Allows the student to do hands-on applications of the theories and fundamentals learned in ETE 112. Corequisite: ETE 112. Laboratory: 1 credit (45 contact hours).</td>
</tr>
<tr>
<td>ETE 114 (4)</td>
<td>Voice &amp; Data Installer Level II</td>
<td>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: ETE 110 with a grade of C or greater. Lecture: 3 credit (45 contact hours). Laboratory: 1 credit (30 contact hours).</td>
</tr>
<tr>
<td>EX 196 (1 - 6)</td>
<td>Experiential Education</td>
<td>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/No Pass basis only. This course is open only to transfer, nondegree and undecided students. Lecture: Variable; Laboratory: Variable. Prerequisite: Consent of instructor.</td>
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<tr>
<td>EX 196 (1 - 6)</td>
<td>Experiential Education</td>
<td>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/No Pass basis only. This course is open only to transfer, nondegree and undecided students. Lecture: Variable; Laboratory: Variable. Prerequisite: Consent of instructor.</td>
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<tr>
<td>ET 252 (3)</td>
<td>Family Studies Introduction to Family Science</td>
<td>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</td>
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</table>
FILM 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: SB - Social Behavior Science, Social Interaction  
Family Studies  

FILM 130 (4)  
Course ID: 005373  
Components: Laboratory, Lecture  
FLM 210 (3)  
Course ID: 007265  
Screenwriting  
Introduces the fundamentals of screenwriting including iconic description, character development, plot twists, turn-arounds, three-act structure and revisions. Reviews writing for camera. Demonstrates the use of proper formatting and the connection between the screenplay, the director, and the production team. Connects students to active screenwriters through collaboration and networking. Prepares students for work with the Writers Guild and other professional organizations. Pre-requisite: ENG 281. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  

FLM 260 (3)  
Course ID: 007266  
Cinematography  
Prepares students for careers in camera, directing and art design in the motion picture industry through introduction to composition, camera movement and prime lenses. Integrates classroom study of lens history and optics, as well as project-based, hands-on application of knowledge and practical exercises. Demonstrates how selection and composition affects story development and viewer response. Pre-requisite: ENG 281 or consent of instructor. Lecture/Lab: 3.0 credits (75 contact hours).  
Components: Lecture  

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 relativity, 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 - Humanities, AH - Heritage  

FLM 110 (4)  
Course ID: 005369  
FILMMAKING  
FILMMAKING: TREATMENT TO STORYBOARD  
Provides project-based instruction on basics of filmmaking. Familiarizes students with the process of creating a film treatment and proposal, writing and revising a screenplay, formatting and the connection between the screenplay, the director and the production team. Connects students to active screenwriters through collaboration and networking. Prepares students for work with the Writers Guild and other professional organizations. Pre-requisite: ENG 281. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).  
Components: Laboratory, Lecture  

FLM 120 (4)  
Course ID: 005371  
FILMMAKING: STORYBOARD THROUGH PRODUCTION  
Provides project-based instruction on basics of film production. Familiarizes students with directing, lighting, set design, cinematography, and audio. Corequisite: FILM 110 and FILM 130. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).  
Components: Laboratory, Lecture  

FLM 130 (4)  
Course ID: 005373  
FILMMAKING: EDITING THROUGH DISTRIBUTION  
Provides experience in graphic design, editing, music production, and promotion. Emphasizes preparation for entry-level positions in the industry. Corequisite: FILM 110 and FILM 120. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).  
Components: Laboratory, Lecture  

FLM 210 (3)  
Course ID: 007265  
Screenwriting  
Introduces the fundamentals of screenwriting including iconic description, character development, plot twists, turn-arounds, three-act structure and revisions. Reviews writing for camera. Demonstrates the use of proper formatting and the connection between the screenplay, the director, and the production team. Connects students to active screenwriters through collaboration and networking. Prepares students for work with the Writers Guild and other professional organizations. Pre-requisite: ENG 281. Lecture: 3.0 credits (45 contact hours).  
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Components: Lecture  

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 relativity, 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 - Humanities, AH - Heritage  

FLM 110 (4)  
Course ID: 005369  
FILMMAKING  
FILMMAKING: TREATMENT TO STORYBOARD  
Provides project-based instruction on basics of filmmaking. Familiarizes students with the process of creating a film treatment and proposal, writing and revising a screenplay, and creating and managing a storyboard. Corequisite: FILM 120 and FILM 130. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).  
Components: Laboratory, Lecture  

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Course ID: 005371  
FILMMAKING: STORYBOARD THROUGH PRODUCTION  
Provides project-based instruction on basics of film production. Familiarizes students with directing, lighting, set design, cinematography, and audio. Corequisite: FILM 110 and FILM 130. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).  
Components: Laboratory, Lecture  

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Course ID: 005373  
FILMMAKING: EDITING THROUGH DISTRIBUTION  
Provides experience in graphic design, editing, music production, and promotion. Emphasizes preparation for entry-level positions in the industry. Corequisite: FILM 110 and FILM 120. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).  
Components: Laboratory, Lecture  

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Components: Laboratory, Lecture  

FILMMAKING: EDITING THROUGH DISTRIBUTION  
Provides experience in graphic design, editing, music production, and promotion. Emphasizes preparation for entry-level positions in the industry. Corequisite: FILM 110 and FILM 120. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).  
Components: Laboratory, Lecture
FNS 255 (1) Course ID:006558
Embalming 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-require: Admission to the Funeral Service Program and FNS 250. Practicum: 1.0 credit (90 contact hours).
Components: Practicum

FNS 275 (2) Course ID:006559
Funeral Service Projects
Provides comprehensive review of entire Funeral Service curriculum in preparation for the National Board Examination and eligibility for all state and national licensure requirements. Addresses current events, skills, knowledge and/or attitudes and behaviors pertinent to the occupation and relevant to the professional development of the student. Pre-require: Admission to the Funeral Service Program. Lecture: 2.0 credits (30 contact hours).
Components: Lecture

FPX Fluid Power

FPX 100 (3) Course ID:001464
Fluid Power
Includes fluid power theory, component identification and application, schematic reading, and basic calculations related to pneumatic and hydraulic systems and their operation. Corequisite: FPX 101 or Consent. Lecture: 3 credits (45 contact hours).
Components: Lecture
Same As Offering: FPX 100
Attributes: Course Also Offered in Modules

FPX 101 (2) Course ID:001465
Fluid Power Lab
Provides practical experiences in the study of fluid power theory, hydraulics and pneumatics component identification, schematic reading, and basic calculations related to hydraulic and pneumatic systems and their operation. Corequisite: FPX 100 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Same As Offering: FPX 101
Attributes: Course Also Offered in Modules

FPX 1001 (0.3) Course ID:005625
Introduction to Fluid Power
Introduces the basic concepts of fluid power and provides an opportunity to discuss 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 101 or Consent. Lecture: .3 credit (4.5 contact hours).
Components: Lecture

FPX 1002 (0.3) Course ID:005674
Introduction to Hydraulic System Maintenance
Familiarizes the student 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 101 or Consent. Lecture: 0.3 credit (4.5 contact hours).
Components: Lecture

FPX 1003 (0.4) Course ID:005675
Introduction to Pneumatic System Maintenance
Introduces pneumatics 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 and FPX 1011 with a grade of C or better] or Consent. Corequisite: FPX 1012 or consent. Lecture: 0.4 credit (6.0 contact hours).
Components: Lecture

FPX 1004 (1) Course ID:005642
Hydraulic System Components and Applications
Introduces the 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 1014 or Consent. Lecture: 1 credit (15 contact hours).
Components: Lecture

FPX 1005 (1) Course ID:005643
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. Corequisite: FPX 1015 or Consent. Lecture: 1 credit (15 contact hours).
Components: Lecture

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

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

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

FRS 104 (3) Course ID:001469
Firefighters Intermediate Skills I
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

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

FRS 201 (3) Course ID:001471
Firefighters Advanced Skills I
Includes firefighters 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

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

FRS 203 (3) Course ID:001473
Firefighters Advanced Skills III
Includes pump operations II, drivers training, overhaul, fire alarms and communications, sprinkler, and praccuction. Prerequisite: FRS 202 or Consent of Instructor. Lecture: 3 credits (90 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

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

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

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

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
Explores 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. Explains 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) 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) 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) Portable Fire Extinguishers I
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.

Components: Laboratory, Lecture

FRS 1016 (0.6) 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 1022 (0.8) Ladders I
Covers basic information pertaining to the use of ladders in the fire service including ladder terminology, types of ladders and ladder carries and raises. Prerequisite: FRS 1021 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 airport fire fighting and rescue. The information is consistent with the recommendations in NFPA 1003 Standard for Professional Qualifications for Airport Fire Fighters, 1987 Edition.

Components: Lecture

FRS 1024 (0.4) Rescue I
Addresses the procedures of search for location, removal of entrapped 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. Lecture: 0.1 credits (2 contact hours).

Components: Lecture

FRS 1028 (0.2) Forcible Entry I
Identifies materials and construction features of doors, windows, walls, doors and window locking devices. Teaches forced entry through at least three (3) different types each of doors, windows, and walls. Discusses maintenance of tools and equipment used for forced entry and safety factors. Prerequisite: (FRS 101 or FRS 1014) or Consent of Instructor.

Components: Laboratory, Lecture

FRS 1029 (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, provide breathing assistance, and cardiac compressions.

Components: Lecture

FRS 1031 (0.7) Building Construction
Improves the ability of students to assess building stability and resistance to fire. Teaches to protect the lives of firefighters and community residents, while improving operational effectiveness through more complete and accurate size-ups. Upgrades the skills of our nation’s fire service.

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 I
Teaches the student to control or extinguish stacks of Class A materials, combustible liquids, vehicle fires, exterior dumpster/hazard bin, and Class A combustible materials within a structure. Prerequisite: (FRS 1011 and FRS 1016 and FRS 1028) or Consent of Instructor

Corequisite: FRS 1034 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

Corequisite: FRS 1033 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 wildfire water supply source. Prerequisite: (FRS 1012 and FRS 1016) or Consent of Instructor

Components: Laboratory, Lecture

FRS 1042 (0.2) 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
Reviews salve 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).

Components: Lecture

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).

Components: Lecture

FRS 1047 (1.1) Course ID:003947
Hazardous Materials Operations

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 1048 (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 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:003810
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

Includes 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
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 1015 or Consent of Instructor. Lecture: 0.1 credits (2 contact hours).

Components: Lecture

FRS 2022 (0.8) Course ID:003921
Water Supply II

Includes 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
Foam Fire Streams II

Includes 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 2023 or Consent of Instructor. Lecture: 0.1 credits (1 contact hour).

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).

Components: Lecture

FRS 2026 (0.8) Course ID:003957
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).

Components: Lecture

FRS 2031 (0.5) Course ID:003925
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 2032 (1.1) 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

FRS 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

FRS 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
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

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. Prerequisite: COMPASS Reading Score of 60+ OR English Score of 39+. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

GEN 100 (1) Course ID:000871
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

GEN 102 (3) Course ID:000872
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
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. Prerequisite: Sophomore status and consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

GEN 104 (2) Course ID:005329
Applied Principles of Peer Mentoring
Introduces 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

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 student to practice concepts while developing an appreciation of service. Lecture: 3 credits (45 contact hours).
Components: Lecture

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

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. Prerequisite: GEN 122
Components: Laboratory, Lecture

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, AH - Humanities, Course Also Offered in Modules

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

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

Development of Leadership
Presents 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, SB - General Education

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

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: Course Also Offered in Modules

Lifelong Learning Applications
Develops and identifies overall life skills in complex systems as a way to interact and communicate with others to produce successful outcomes. Prerequisite: GE 175 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - General Education, Course Also Offered in Modules

Employment and Professional Skills
Presents the process of effective career planning and develops the skills necessary for obtaining and maintaining employment. Lecture: 1 credit (15 contact hours).
Components: Lecture

College Basics & Learning Styles
Presents an overview of information literacy 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

Critical Reading and Thinking
Presents strategies and tools to promote critical reading and thinking. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

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

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

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

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

Global Studies

GBS 290 (3) Course ID:005514
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

GB Global Studies

GEN General College Studies

GEN 125 (3) Course ID:006590
Applied Learning Skills Application
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

GEN 1252 (1) Course ID:006592
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 1253 (1) Course ID:006593
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 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: 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 way to interact and communicate with others to produce successful outcomes. Prerequisite: GE 175 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 276 (1) Course ID:004489
Employment and Professional Skills
Presents the process of effective career planning and develops the skills necessary for obtaining and maintaining employment. Lecture: 1 credit (15 contact hours).
Components: Lecture

College Basics & Learning Styles
Presents an overview of information literacy 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

Critical Reading and Thinking
Presents strategies and tools to promote critical reading and thinking. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

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

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

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

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
Course Descriptions

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**
Provides 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 2251 (0.4) Course ID:006602
**Acquiring Digital Skills**
Access, manage, integrate, evaluate, and create digital technology and information. Pre-requisite: GE 175 or Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 2252 (0.6) Course ID:006603
**Project / Time Management Basics**
Identify project and time management strategies to set appropriate goals and timelines. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 2253 (0.3) Course ID:006604
**Leadership Overview**
Provides an overview of leadership responsibility and the ethical considerations that impact decisions. 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 2254 (0.4) Course ID:006605
**Global Awareness**
Provides skills for reasoning, open dialogue with diverse cultures, and complex systems. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 2255 (0.3) Course ID:006606
**Financial Literacy**
Provides skills for managing financial resources and making appropriate economic choices. 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 2256 (0.3) Course ID:006607
**Civic Engagement**
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 2257 (0.4) Course ID:006608
**Social Respect and Collaboration**
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 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 102 (3) Course ID:000759
**German Elementary 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

GEO 103 (3) Course ID:000884
**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

GEO 172 (3) Course ID:000158
**Human Geography**
Provides an introduction to human 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, Social Interaction Geography

GEO 173 (3) Course ID:000351
**Earth’s Physical Environment**
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: SN - Science

GEO 175 (0.4) Course ID:006600
**Workplace Skills**
Provides an overview of leadership responsibility and the ethical considerations that impact decisions. Pre-requisite: GE 175 or Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEO 176 (0.4) Course ID:006601
**Exploring Employment Strategies**
Explores elements of the pre-employment process. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture

GEO 201 (3) Course ID:000880
**Intermediate German I**
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

GEO 202 (3) Course ID:000879
**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

GEO 210 (3) Course ID:000610
**Pollution, Hazards, and Environmental Management**
Introduces an 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. A management system considers: 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. Fulfills USP Cross-Disciplinary requirement.
Components: Lecture
Attributes: SB - Social Behavior Science, Social Interaction Geography

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, Social Interaction Geography

GEO 240 (3) Course ID:000434
**Geography and Gender**
Provides 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, and political geographies, and migration.
Components: Lecture
Attributes: SB - Social Behavior Science, Social Interaction Geography

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
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

GIS 120 (3) Course ID:004762
Introduction to Geographic Information Systems
Presents a comprehensive survey of the fundamental concepts of GIS, providing students a command over the software to import raster 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 210 (3) Course ID:005042
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
Campus: BLC

GLY Geological Sciences

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
Identify 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 - SL - Science Laboratory

GLY 112 (1) Course ID:000548
Historical Geology Laboratory
Interpret 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

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 interpretation of fossils, scale models, and sedimentary rocks. Investigates specimens and examines features of dinosaurs and related fossils. 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: SN - Science

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 geological materials, geologic maps and cross sections. Lecture: 3 credits (45 contact hours); Laboratory: 1 credits (30 contact hours).
Components: Lecture
Attributes: SN - Science, SL - Science Laboratory

HCl Healthcare Informatics

HCl 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: SN - Science, SL - Science Laboratory

HCl 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: HCl 200 Introduction to Health Care Informatics or Instructor Consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HCl 220 (3) Course ID:007421
Database Systems In Health Care
Provides students with the concepts that are fundamental to the 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: HCl 210 Management of Health Care Information and System Security or Instructor Consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HCl 230 (3) Course ID:007422
Legalities 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: HCl 220 Database Systems in Health Care or Instructor Consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HCl 240 (4) Course ID:007423
Project Management In Health Care Informatics
Introduces 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: HCl 230 Health Care Legal Issues, Ethics, and Regulations. Lecture: 4.0 credits (60 contact hours).

HEO Heavy Equipment Operation

HEO 100 (12) Course ID:001519
Heavy Equipment Operations I
This course is designed to instruct students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Instruction in digging, ditching, sloping, grading, backfilling, clearing trees and rubble, and foundation excavating is provided, as well as instruction in the proper care and maintenance of equipment. Prerequisite: DIT 103
Components: Lecture

HEO 101 (4) Course ID:001521
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. Prerequisite: DIT 103. Laboratory: 4 credits (180 contact hours).
Components: Laboratory

HEO 105 (4) 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. Lab: 7.0 credits (315 contact hours).
Components: Laboratory

HEO 109 (2) Course ID:001523
Power Shovel Backhoe Operator
This course covers a broad base of skills required to operate heavy equipment with an emphasis on safety. Students will learn how to operate a dump truck and power shovel backhoe. Prerequisite: DIT 103
Components: Laboratory

HEO 111 (7) Course ID:001524
Bulldozer Operator
This course covers a broad base of skills required to operate heavy equipment with an emphasis on safety. Students will learn how to operate a dump truck and a bulldozer. Prerequisite: DIT 103
Components: Laboratory

HEO 115 (7) Course ID:004571
Hydraulic Excavator Operator
Covers a broad base of skills required to operate heavy equipment safely. Students will learn how to operate a hydraulic excavator safely. Prerequisite: HEO 100.
Components: Laboratory, Lecture
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, AH - Heritage

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, AH - Heritage

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, AH - Heritage, 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 significantly influenced the American experience following Reconstruction through the contemporary era. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, AH - Heritage, 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, AH - Heritage

HIS 202 (3) Course ID:000828
History of British People to the Restoration
Surveys the major political, social, economic, and cultural developments in Britain history from the pre-Roman era through the Stuart Dynasy. Includes examination of such topics as the Norman conquest, the Plantagenet Dynasty, the Hundred Years War, War of the Roses, the Tudors Monarchy, the Protestant Reformation, the Stuart Kings, Puritan Revolution, and the Restoration.
Components: Lecture
Attributes: AH - Arts and Humanities, AH - Heritage

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, AH - Heritage

HIS 206 (3) Course ID:002219
History of Colonial Latin America
Surveys the social, economic, political and cultural development of Latin America from the fifteenth century to 1810 with 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, AH - Heritage

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: Cultural Studies, AH - Arts and Humanities, AH - Heritage

HIS 220 (3) Course ID:007417
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

HIS 221 (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, the struggle 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

HIS 240 (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, AH - Heritage

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, AH - Heritage

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, AH - Heritage

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 18th 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, AH - Heritage

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, AH - Heritage

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 - Heritage

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, AH - Heritage

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

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

HIS 271 (3) Course ID:005262
Hispanic 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, AH - Heritage

HIS 295 (3) Course ID:000753
History of Asia II
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. Lecture 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, AH - Heritage

HIS 296 (3) Course ID:000753
History of Asia II
East Asia to 1800
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, AH - Heritage

HIS 299 (1-3) Course ID:005221
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
HIS 1081 (0.75) Course ID:006235
Colonial America
Examines key political, economic, and social topics from the pre-colonial period through settlement and colonization that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

HIS 1082 (0.75) Course ID:006236
The Early National Period
Examines key political, economic, and social topics from the Revolution through the early national period that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

HIS 1083 (0.75) Course ID:006237
Growth and Prosperity
Examines key political, economic, and social topics during the Antebellum period that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

HIS 1084 (0.75) Course ID:006238
Secession and Civil War
Examines key political, economic, and social topics from sectional conflict through the Civil War that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

HIS 1091 (0.75) Course ID:006239
History of the United States through the Gilded Age
Examines key political, economic, and social topics from Reconstruction through the Gilded Age that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

HIS 1092 (0.75) Course ID:006240
History of the United States from Imperialism through World War I
Examines key political, economic, and social topics from the Progressive Era through World I and the 1920s that have significantly influenced the American experience. Prerequisite: HIS 1091. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

HIS 1093 (0.75) Course ID:006241
History of the United States from the Twenties to the Onset of the Cold War
Examines key political, economic, and social topics from the Depression and New Deal through World II that have significantly influenced the American experience. Prerequisite: HIS 1092. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

HIS 1094 (0.75) Course ID:006242
History of the United States during the Cold War to the Present
Examines key political, economic, and social topics from the Cold War and Civil Rights through the Rise of Conservatism that have significantly influenced the American experience. Prerequisite: HIS 1093. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

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

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 137) with a grade of C or better]. Lecture: 3 credits (45 contact hours).
Components: Lecture

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 pharmacological principles 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 MIT 103)]. Minimum grade of C. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

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

HIT 108 (3) Course ID:004264
Clinical Classification Systems I
Examines code sets and systems used in 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 and HIT 112). Minimum grade of "C". Pre-requisite Or Co-requisite: [HIT 130 or HIT 230]. Minimum grade of "C". Lecture: 2 credits (37.5 contact hours). Laboratory: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

HIT 109 (4) Course ID:007083
Clinical Classification Systems II
Examines code sets and systems used in 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 and HIT 112). Minimum grade of "C". Pre-requisite Or Co-requisite: [HIT 130 or HIT 230]. Minimum grade of "C". Lecture: 3 credits (45 contact hours). Lab: 1.0 credits (15 contact hours).
Components: Lecture

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 Certificate 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

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 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

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 108] with a grade of "C" or better. Practicum: 2.0 credits (30 contact hours).
Components: Practicum

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 Certificate Program or by special permission of the Program Coordinator and (HIT 109 and HIT 110 and HIT 112). Minimum grade of "C". Pre-requisite Or Co-requisite: [HIT 130 or HIT 230]. Minimum grade of "C". Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

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 and (HIT 109 and HIT 110 and HIT 112). Minimum grade of "C". Pre-requisite Or Co-requisite: [HIT 130 or HIT 230]. Minimum grade of "C". Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

HIT 204 (2) Course ID:004270
Quality Assessment 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: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Lecture

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
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 200, HIT 202, and HIT 204 with a grade of C or better. Lecture: 1.5 hours. Laboratory: 1 hour.
Components: Laboratory, Lecture

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 SBPRV’s, OASIS, RUGs, Cancer Registry, etc. Reviews fraud, abuse, and regulatory agency requirements relating to coding and billing. Pre-requisite: HIT109 and HIT 202. Minimum grade of “C”. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

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

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, and (MT 110 or MT 150) and ((CIS 130 or OST 240) and (HIT 200 and HIT 202 and HIT 204) with a grade of C or better). Lecture: 2 credits (30 contact hours).
Components: Lecture

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 health care 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

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, economics, 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

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. Lecture: 9 hours.
Components: Practicum

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 on-site 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

HIT 289 (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 - 0.0 contact hours). Lab: 0.5 - 4.0 credit hours (15 -20 contact hours).
Components: Laboratory, Lecture

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. 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 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

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

HMS 103 (3)  
Course ID:000202
Theories and Techniques in Human Services
Introduces philosophies, theories for intervention, and the problem-solving process. Emphasizes the development of a skill base used in counseling techniques and client intervention. Enhances interpersonal relationship skills through knowledge of communication techniques. Provides activities in which the student will apply this knowledge and these skills. Prerequisite: HMS 101 and HMS 102 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HMS 200 (3)  
Course ID:000784
Dynamics of Human Behavior
Includes an historic view of theories of personality development, maladaptive knowledge of treatment, techniques of adjustment and social implications. Prerequisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HMS 211 (3)  
Course ID:005583
Introduction to Addictions
Provides an overview of approaches to understanding addictions with emphasis on the biopsychosocial model. Analyzes the etiology, progression, and processes involved in change. Prerequisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HMS 212 (2)  
Course ID:005585
Crisis Intervention
Focuses on crisis intervention theory, suicide prevention, and risk assessment techniques. Covers risk assessment protocols, crisis triage, de-escalation and referral. Introduces clinical, ethical and legal aspects. Prerequisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HMS 220 (3)  
Course ID:005588
Cultural Diversity in Human Services
Examines current and historical cultural diversity in human services provision. Focuses on cultural self-awareness and cultural competence as they pertain to human services professionals. Explores dominant and minority cultural norms, attitudes, and belief systems. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HMS 235 (3)  
Course ID:000818
Teaching Reasons with Mental Retardation
Introduces mental retardation with emphasis on the bio-psycho-social model. Examines the etiology, progression, and processes involved in change. Prerequisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HMS 250 (4)  
Course ID:000808
Clinical Practice in Human Services
Provides practice and application of principles and skills previously learned in Human Services courses in community agencies. Prerequisite: HMS 104 or Consent of Instructor. Lecture: 1.0 credit (15 contact hour); Clinical: 3.0 credits (180 contact hours).
Components: Clinical, Lecture
HOS 265 (3) Course ID:000709  
Working with Disabilities in Human Services  
Provides an in-depth study of the coordination and provision of services and supports for individuals with disabilities in community settings, including the provision of community-referenced instruction, vocational instruction in community settings, school-to-work transition planning, integrated recreation/leisure opportunities, and personal management/independent living skill training and supports. Emphasizes developmental disabilities and mental retardation. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
HOS 299 (1 - 3) Course ID:000522  
Special Topics in Human Services: (Topic)  
Provides an in-depth knowledge of a Human Services topic and allows students' choices with coordinator/instructor's approval on an issue of instruction. Lecture: 1-3 credits (15-45 contact hours). Clinical: 1-3 credits (60-180 contact hours).  
Components: Lecture  

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, AH - Humanities  

HON Honors  

HON 101 (3) Course ID:000892  
The Ancient 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, AH - 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, AH - Humanities  

HON 201 (3) Course ID:000889  
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, AH - Humanities  

HON 202 (3) Course ID:000832  
The Contemporary World  
The contemporary world: 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, AH - Humanities  

HOS Hospitality Management  

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  

HOS 160 (3) Course ID:002366  
Security for the Hospitality Industry  
Analyzes modern security concerns for the protections of assets unique to the hospitality industry, including loss prevention techniques and the application of law for lodging, retailing, clubs, restaurants, lounges and hospitality properties. Examines topics such as industrial safety, disaster control techniques, emergency action planning, and crisis communications. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  

HOS 200 (3) Course ID:002367  
Cultural Heritage Tourism  
Examines the range of cultural and heritage assets that can become viable tourism attractions and looks at ways of linking quality cultural heritage tourism to community development from effective planning and marketing. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  

HOS 210 (3) Course ID:002368  
Front Office Operations  
Identifies principles required to organize and operate hotel and motel front office guest needs, to have effective salesmanship, and to create procedures for different types of front office operations. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  

HOS 220 (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 access 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  

HPH Health Physics  

HPH 100 (3) Course ID:006324  
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  

HPH 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  

HPH 102 (3) Course ID:000762  
Health Physics II  
Introduces internal and external dosimetry, shielding, radiation detection, and environmental monitoring. Prerequisite: HPH 101. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  

HPH 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  

HPH 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  

HPR 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. Prerequisite: HPH 201. Lecture/Lab: 4.0 credit hours (90 contact hours).  
Components: Lecture  

HPH 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  

HPT Historic Preservation Technology  

HPT 100 (3) Course ID:005299  
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  
Campus: WKCTC  

HPT 101 (2) Course ID:006963  
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: Lab/Laboratory  
Campus: WKCTC  

HPT 120 (2) Course ID:005297  
Traditional Woodworking  
Provides traditional woodworking techniques, safe maintenance, and use of hand and power tools with hands-on training in fitting, fastening, and finishing a wood project. Lecture/Lab: 2.0 credits (52.5 contact hours).  
Components: Lecture  
Campus: WKCTC  

HPT 200 (2) Course ID:006964  
Masonry Repointing and Repair  
Introduces masonry materials and repair techniques for historic structures with an emphasis on brick and stone masonry and hands-on repair/repointing. Pre-requisite: ISX 100 or ISX 101 or Consent of Instructor. Lecture/Lab: 2.0 credits (52.5 contact hours).  
Components: Lecture  
Campus: WKCTC  

HPT 202 (2) Course ID:006965  
Window Restoration and Repair  
Provides the process 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  
Campus: WKCTC  

HPT 204 (2) Course ID:006966  
Roof Restoration and Repair  
Covers pre-World War 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  
Campus: WKCTC
HRT 298 (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. Prerequisite: (HST 100 and HST 101) or Consent of Instructor. Practicum: 2.0 credits (90 contact hours).
Components: Practicum
Campus: WKTC
HRS Honors
HRS 101 (3) Course ID:000895
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: AH - Arts and Humanities, AH - 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 through 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: 1 hour. Variable; Laboratory: Variable. Prerequisite: Superior academic ability as demonstrated by tests, classwork, and interviews.
Components: Laboratory, Lecture
HRT Horticulture
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 beauty. Lecture: 3 hours.
Components: Lecture
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
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
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
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 maintenance and renovation for turf areas. Lecture: 4 credits (60 contact hours).
Components: Lecture
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
HRT 131 (2) Course ID:001540
Landscape Maintenance Lab
Introduces basic techniques for landscape management and the proper control measures for each, and 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 maintenance growing schedules for the following crops are completed: poinsettias, chrysanthemums, Easter lilies, bedding plants and hanging baskets. Injectors are calibrated using various fertilizer and chemical ratios. Prerequisite/Corequisite: HRT 140
Components: Laboratory
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
HSE Health Sciences Education
HSE 101 (1) Course ID:002221
Introduction to Health Sciences
Limited to students contemplating a career in one of the health sciences.
Components: Lecture
HSM Homeland Security/ Emergency Management
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. Examines current trends and career opportunities in homeland security. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
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: 3.0 credits (45 contact hours).
Components: 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 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 care.
Components: Lecture

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. Emphasizes AIE 110 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture

HTM 125 (2) Course ID: 007227 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 HTM 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: HTM 120 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture

HTM 130 (2) Course ID: 007228 Medical Equipment Management I Presents medical technology management principles and practices with regard to ongoing training of staff, ongoing medical equipment maintenance, ongoing risk 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: HTM 130 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture

HTM 140 (1) Course ID: 007229 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 involving light, sound, fluid dynamics, heat transfer, and electrochemistry. Pre-requisite: PHY 171. Pre-requisite or Co-requisite: HTM 125. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

HTM 200 (2) Course ID: 007230 Patient Care Support and Management Systems Presents patient care through the 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 systems involving utility power systems, water and medical gas systems, nurse call systems, patient beds, sterilizers, infant abduction systems, and telemedicine. Pre-requisite: HTM 125 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture

HTM 210 (2) Course ID: 007231 Diagnostic Medical Equipment and 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, ultrasound-generating machines, and magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, HTM 110 with a grade of C or better. HTM 125 with a grade of C or better, HTM 140 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture

HTM 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, HTM 110 with a grade of C or better, HTM 125 with a grade of C or better, HTM 140 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture

HTM 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 risk 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: HTM 130 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture

HTM 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 record 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

HTM 260 (2) Course ID: 007235 Radiographic Imaging Modalities Presents radiographic imaging systems routinely employed in healthcare settings with regard to the technology, theory of operations, and quality assurance testing. Emphasizes a variety of technologies including both analog and digital radiographic and fluoroscopic machines, mammography units, computed axial tomography (CAT) scanners, and bone densiometers. Pre-requisite: BIO 135 with a grade of C or better and HTM 110 with a grade of C or better and HTM 125 with a grade of C or better and HTM 140 with a grade of C or better and HTM 230 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture

HTM 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 with a grade of C or better and HTM 125 with a grade of C or better and HTM 140 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture

HTM 275 (2) 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: HTM 270 with a grade of C or better and HTM 230 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
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 with a grade of C or better and HTM 125 with a grade of C or better. Pre-requisite or Co-requisite: HTM 230. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture

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: HTM 230 with a grade of C or better and HTM 230 with a grade of C or better. Pre-requisite or Co-requisite: HTM 250. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture

Clinical for the Healthcare Technology Management Professional

Provides an opportunity for the student to apply their knowledge and skill as a healthcare technology management professional in a real-world setting. Requires the student to complete 120 contact hours under the supervision of an assigned clinical supervisor. Pre-requisite: HTM 230 and HTM 200 and HTM 220. Pre-requisite or Co-requisite: HTM 250 and HTM 260 and HTM 275 and HTM 285. Clinical: 2.0 credits (120 contact hours).

Components: Clinical

Selected Topics of Investigation in Healthcare Technology Management

Includes selected topics in healthcare technology management that can be addressed to fulfill an industry need or desire. 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. Pre-requisite: Consent of instructor. Lecture/Lab: 0.5 - 5.0 credits (7.5 - 75.0 contact hours).

Components: Lecture

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 - Humanities

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, AH - Humanities

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, AH - Humanities, SB - Social Behavior Science, SB - Humanities

Introduction to Latino Literature

Analyzes literary texts and other artistic expressions to reveal aspects of Latino cultures such as identity, migration, 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: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Cultural Studies, AH - Arts and Humanities, AH - Humanities

Introduction to African Literature

Provides an introduction 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, AH - Humanities

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 - Humanities

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, AH - Humanities, SB - Social Behavior Science, SB - Humanities

Survey of Appalachian Studies II

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 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, AH - Humanities, SB - Social Behavior Science, SB - Humanities
-process variables will be stressed. Elementary laws of this objective are unit conversions, chemical stoichiometry, successfully formulate and solve material and energy principles and calculations of chemical engineering reviewed. Lecture: 2 hours.

- Application completion, and resume writing are also focuses on local plant's chemistry and operations, quality chemical plant operators and laboratory technicians. Local components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities, AH - Humanities

-HUM 281 (3) Course ID: 006540 Introduction to Film Introduces the study of movies as a narrative art and a cultural document. Requires viewing of films outside of class. Lecture: 3 credits (45 contact hours).

- Components: Lecture course Equivalents: ENG 281 Attributes: AH - Arts and Humanities, AH - Humanities

-HUM 282 (3) Course ID: 006541 International Film Studies Enhances student awareness of how cinema has been used as a multicultural tool for observing/analyzing various aspects of a broad range of societies. Includes critical analysis and interpretation of films from various cultures. Explores the films' countries of origin and the cinematic impacts upon the society and the world. Lecture: 3 credits (45 contact hours).

- Components: Lecture course Equivalents: ENG 282

- ICT 185 (3) Course ID: 000600 Introduction to Industrial Chemical Technology Using a seminar approach, students are exposed to an overview of chemical processes and local industries. Students will be apprised of the roles and responsibilities of chemical plant operators and laboratory technicians. Local chemical companies will provide operational tours with chemical instructional introductions. Classroom instruction focuses on local plant's chemistry and operations, quality in the chemical process industries, as well as an overview of chemical engineering terms, definitions and unit operations. Basic employability skills such as interviewing, application completion, and resume writing are also reviewed. Lecture: 2 hours.

- Components: Lecture

- ICT 190 (2) Course ID: 000027 Chemical Engineering Fundamentals An introductory stoichiometric course covering basic principles and calculations of chemical engineering technology. The course objective is for students to successfully formulate and solve material and energy balances on chemical process systems. Topics supporting this objective are unit conversions, chemical stoichiometry, process variables, elementary process analysis, physical chemistry properties, and computational techniques designed to teach an engineering approach to problem solving. Lecture: 2 hours. Prerequisite: MA 106, and corequisites: CHE 104 or CHE 105, or consent of instructor.

- Components: Lecture

- ICT 220 (3) Course ID: 000852 Unit Operations I Basic principles of chemical process unit operations are studied. Fundamentals of fluid flow and measurement of process variables will be stressed. Elementary laws of fluid transport are presented as well as practical aspects of piping components and design. Additionally, fluid flow equipment and principles involving pipes, pumps, valves and measurement will be explored. Lecture material corresponds to laboratory applications. Lecture: 2 hours; Laboratory: 2 hours. Prerequisite: ICT 185, MA 106, and corequisite: CHE 104 or CHE 105 or consent of instructor.

- Components: Laboratory, Lecture

- ITC 230 (3) Course ID: 000377 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 field exercises will be performed as appropriate with participating industry representatives. Environmental regulations and their ultimate impact on a chemical facility as regulations will be discussed. An environmental audit will be performed in the field at participating local industries. Lecture: 3 hours. Corequisite: ITC 185, CHE 104 or 105, or consent of instructor.

- Components: Lecture

- ITC 240 (3) Course ID: 000441 Unit Operations II Basic principles of chemical process unit operations are studied. Fundamentals of heat and mass transfer operations will be stressed as well as chemical reaction vessels. Elementary laws and operations of heat and mass transport phenomenon and equipment are presented. Principles are presented in relation to various unit operations. Lecture material corresponds to laboratory applications. Lecture: 2 hours; Laboratory: 2 hours. Prerequisite: ITC 220.

- Components: Laboratory, Lecture

- ITC 250 (3) Course ID: 000813 Chemical Process Systems and Control Focuses on operation and control of a chemical plant as required by the chemical plant operator. Basic principles of chemical process systems and their associated control strategies are stressed. Fundamentals of automated process control systems will be discussed and those principles are related to various unit operation computer generated simulations. Practical study of process control systems as applied to chemical process systems and coordinated with the associated lab course. Lecture: 2 hours; Laboratory: 2 hours. Prerequisite: ITC 220, ITC 230 or consent of instructor.

- Components: Laboratory, Lecture

- ITC 280 (2) Course ID: 003981 Capstone in Industrial Chemical Technology Capstone class for ICT program. Working in teams, students will participate in an interactive project which provides the opportunity to demonstrate the practical application of the ICT curriculum. Each team will have responsibility for a simulated chemical plant operation. Focus is on planning, implementation, safe operation and control as required of a chemical plant operator. There is no classroom instruction for this course, but projects will be evaluated upon completion by an industrial advisory board. Students are expected to provide feedback to their instructor regarding the participation level of each individual. Laboratory: 4 hours.

- Components: Laboratory

- 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 general types of eLearning 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: 3.0 credits (45 contact hours).

- Components: Lecture

- IDL 102 (3) Course ID: 007203 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

- IDL 120 (3) Course ID: 007245 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

- IDL 113 (3) Course ID: 007204 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

- IDL 123 (3) Course ID: 007246 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

- IDL 130 (3) Course ID: 007205 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

- IDL 140 (3) Course ID: 007207 Introduction to Visual Communication for Learning 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

- IDL 147 (3) Course ID: 007202 eLearning Development II: 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

- IDL 150 (3) Course ID: 007247 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

- IDL 170 (3) Course ID: 007208 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

- IDL 171 (3) Course ID: 007206 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
ILD 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

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: 3.0 credits (60 contact hours).
Components: Lecture

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

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

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

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

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

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

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

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

IDL 280 (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

IDL 299 (3) Course ID:007256
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 progress 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

IDT Interactive Digital Technology

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

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 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

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

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

IDT 210 (3) Course ID:005744
3D Modeling & Animation II
Covers advanced 3D modeling practices for artists and designers working with animation. Provides deeper knowledge of 3D modeling formats: Polygons, NURBS, and Subdivision Surfaces. Explores issues of integrating a model into animation production and application of advanced troubleshooting skills. Pre-requisite: IDT 110 with a grade of C or greater; or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

IEC Interdisciplinary Early Childhood Education

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 IECE program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

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 20 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

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 IECE program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3 credits (45 contact hours).
Components: Lecture

IEC 170 (3) Course ID:005081
Observation and Assessment
Examines the components and skills necessary for maintaining a healthy and safe environment for young children. Includes 10 hours of required field experience which may be waived by IECE program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3 credits (45 contact hours).
Components: Lecture

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. Prerequisite: IEC 101 or IEC 102 or IEC 130 or permission
of IECE program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture

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 IECE course or permission of program coordinator.
Components: Laboratory, Lecture

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. Prerequisite: IEC 101 or IEC 130 or permission of program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture

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 wellbeing. Builds an awareness of family in 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

IEC 216 (3) Course ID:004135
Literacy and Language in IECE
Presents the interaction of language therapy and instruction techniques and the resulting effect on language and literacy development. 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. Prerequisite: IEC 180 or permission of program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture

IEC 221 (3) Course ID:004136
Creative Expressions in IECE
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. Required: 10 hours of field experience. (This requirement may be waived by faculty for students who are concurrently enrolled in IEC 190 or IEC 291.) Prerequisite: IEC 180 or consent of program coordinator. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

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, governmental regulations and assistance, economics, marketing and management principles.
Components: Lecture

IEC 235 (3) Course ID:004137
Introduction to Inclusive Education
Presents the broad array of factors 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 twenty (20) 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 coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture

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

IEC 246 (3) Course ID:004139
Sciences and Math in IECE
Applies the concepts and principles of science, social studies, mathematics, and health in learning experiences for young children. Includes 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

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

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, prepare, and implement 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 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

IEC 291 (3) Course ID:004141
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: Two hundred twenty-five (225) field hours of experience. Prerequisite: Program Coordinator’s Approval. Practicum: 3 credits (225 contact hours/ratio 75:1).
Components: Practicum

IEC 299 (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: Lecture

IES 233 (1 - 3) Course ID:004734
Orientation to International Student Exchange
Prepares students to participate in an international program by examining the components of the culture and the components of the infrastructure of the country to be visited. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture

IES 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

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

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. Instucts 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
Campus: BLC

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
Campus: BLC

IET 108 (5) Course ID:007145
Mechanical Drive Systems
Introduces safety, maintenance techniques and procedures used to maintain industrial equipment, including industrial couplings, chains, sprockets, belts, bearings, shafts, brakes, clutches, gears and cams. Addresses the principles of power transmission, calculations of speed and force and how they affect a power transmission system. Lecture/Lab: 5.0 credits (112.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules
Campus: BLC

IET 109 (3) Course ID:007152
Safety
Introduces OSHA and the OSHA regulations that apply to the auto manufacturing industry. Introduces safety rules and issues in the use of overhead cranes, hoists, rigging equipment, attachment components, calculating sling angle stresses, and safe lifting and turning loads. Provides the knowledge and skills necessary to help sustain life and minimize the consequences of injury or sudden illness to meet the various training needs of those in workplace, school or community settings. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules
Campus: BLC

Course Descriptions
IEET Integrated Engineering Technology

295
IET 110 (4) Course ID:007181
Welding and Fabrication
Introduces the power sources used in shielded metal arc welding (SMAW) and gas metal arc welding (GMAW), along with equipment and fitter metals used to produce a welded joint and welding principles along with the metallurgy of steel and welding. Covers shielded metal arc welding safely and shielded metal arc welding processes including flat, horizontal, vertical, and overhead welding techniques. Provides knowledge of theory, safety practices, equipment and techniques required for gas metal arc welding including different transfer methods and position welding. 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: 4.0 credits (100.9 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules
Campus: BLC

IET 120 (4) Course ID:007186
Machine Tool Operations
Introduces machining operations, procedures and machines used by multi-skilled industrial maintenance technicians. Introduces the safe and correct operation of lathes, milling machines, drill presses, metal saws and hand and power tools. Requires students to work with various measuring and layout tools found in industrial environments. Lecture/Lab: 4.0 credits (102 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules
Campus: BLC

IET 201 (6) Course ID:007180
Electrohydraulics/Pneumatics
Explains the fundamental concepts of fluid power and electro-fluid power systems. 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. Addresses fluids, filters, reservoirs, piping, pumps, actuators, accumulators, control valves, and combination circuits. Lecture/Lab: 6.0 credits (120 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules
Campus: BLC

IET 203 (5) Course ID:007172
Programmable Logic Controllers
Introduces Programmable Logic Controllers (PLC) and elements needed for an automated industrial control system. Introduces memory and project organization within a PLC and provides instruction in basic numbering systems, computer and PLC terminology. Introduces PLC control functions, program structures, language standards, wiring and troubleshooting methods, as well as, real world communications. Requires the student to program a PLC which may include a combination of ladder logic, structured text, sequential function chart and/or function block languages. Includes various protocols of industrial communications used between PLC controlled machines, PLC to PLC, PLC to computer, and computer to computer. Lecture/Lab: 5.0 credits (105.9 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules
Campus: BLC

IET 205 (4) Course ID:007167
Robot Maintenance
Introduces robotics in regard to industrial robotic safety standards, applications, types of classes for industrial robots, basic system components, robot programming concepts, key programming techniques, definitions and the common terms associated with computer integrated manufacturing (CIM) as it relates to robotic cells. Instructs students on the mastering concepts of preventive maintenance techniques required for a robot and their backup systems in addition to recovery procedures needed to interpret robot error codes and perform a safe recovery start up procedure on robotics equipment, as well as integrating robotic applications in a PLC-controlled, automated system. Lecture/ Lab: 4.0 credits (82.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules
Campus: BLC

IET 206 (5) Course ID:007161
Controls and Instrumentation
Covers the diversity of control devices including: theory of operation, applications in automation control and troubleshooting and repair. Introduces identification, installation, replacement, and troubleshooting of automation controller circuit boards and modules. Includes the installation, maintenance and troubleshooting of common input devices. Provides for discussion of methods of motor controls including on-off, proportional, integral, and derivative including PID loop tuning and quality. Covers automation output devices including AC, DC, and servomotors, variable speed drives, relays, motor starters and sizing of components for various applications. Lecture/ Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules
Campus: BLC

IET 1021 (0.7) Course ID:007135
Basic 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. Lecture/Lab: 0.7 credits (15 contact hours).
Components: Lecture
Campus: BLC

IET 1022 (1.3) Course ID:007136
Advanced Technologies
Introduces various types and styles of predictive and preventive maintenance components, principles, and practices used in industrial applications. Lecture/Lab: 1.3 credits (25.5 contact hours).
Components: Lecture
Campus: BLC

IET 1041 (0.9) Course ID:007138
Drafting Fundamentals
Introduces the fundamental information in drafting necessary to retrieve read, manipulate and understand a mechanical part print. Requires student to be able to identify different types of prints as well as being able to analyze them. Lecture/Lab: 0.9 credits (16.5 contact hours).
Components: Lecture
Campus: BLC

IET 1042 (1.1) Course ID:007139
Orthographic Interpretation
Instructs the learner 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: 1.1 credits (21 contact hours).
Components: Lecture
Campus: BLC

IET 1071 (1) Course ID:007141
Intro to Basic Electricity
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. Lecture/Lab: 1.0 credit (21 contact hours).
Components: Lecture
Campus: BLC

IET 1072 (0.3) Course ID:007142
Instruments
Introduces electrical measurement instruments, including digital and analog multimeters, clamp-on ammeters, megohmeters, and the oscilloscope. Requires hands-on lab time spent with each device type. Emphasizes safe measuring techniques. Covers additional devices such as pressure gauges, chart recorders, heat sensors and chain stretch monitor. Lecture/Lab: 0.3 credits (7.5 contact hours).
Components: Lecture
Campus: BLC

IET 1073 (1) Course ID:007143
Control Circuits & Components
Concentrates on control logic components and circuit function. Examines combinational and sequential ladder logic designs with great attention to reliability of function. Requires construction of various circuits that demonstrate key component functionality concepts. Requires troubleshooting using analytical techniques, multimeters, chart recorders, and oscilloscopes. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Lecture
Campus: BLC

IET 1074 (0.7) Course ID:007144
Solid State Devices
Introduces solid state devices and applications. Covers semiconductor theory and operational characteristics of devices such as the diode, bipolar junction transistor (BJT) and field effect transistor (FET). Examines the basic DC power supply in the lab. Addresses concepts such as polarity, biasing, rectification and amplification. Includes discussion of camera-type vision systems, barcode readers and laser etchers. Lecture/Lab: 0.7 credits (16.5 contact hours).
Components: Lecture
Campus: BLC

IET 1081 (0.5) Course ID:007146
Basic Mechanical Power Systems
Introduces the basic concepts of mechanical power transmission. Addresses the principle of power transmission, calculations of speed and force and how they affect a power transmission systems ability to perform work. Emphasizes the basics of mechanical drawing, safe work practices for working around machinery, common hand tools associated with maintenance work and some of the more common terms and definitions. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
Campus: BLC

IET 1082 (0.3) Course ID:007147
Flexible Drives
Introduces various types and styles of flexible belt and chain drives, including V-belts, chains, sprockets, and components. Lecture/Lab: 0.3 credit (7.5 contact hours).
Components: Lecture
Campus: BLC

IET 1083 (2.2) Course ID:007148
Couplings and Alignment
Introduces types and functions of couplings used in industrial power transmissions, including how to install, align, and maintain shaft couplings. Lecture/Lab: 2.2 credits (55.5 contact hours).
Components: Lecture
Campus: BLC

IET 1084 (1.1) Course ID:007149
Bearings, 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
Campus: BLC

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
Campus: BLC
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 Campus: BLC
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 Campus: BLC
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 sling angle stresses, and safe lifting and turning loads. Lecture/Lab: 1.2 credits (25.5 contact hours).
Components: Lecture Campus: BLC
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 Campus: BLC
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 Campus: BLC
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 Campus: BLC
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 Campus: BLC
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 Campus: BLC
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 Campus: BLC
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 Campus: BLC
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 drilling operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.5 credits (13.5 contact hours).
Components: Lecture Campus: BLC
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 sawing operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.4 credits (10.5 contact hours).
Components: Lecture Campus: BLC
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 Campus: BLC
IET 2011 (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 Campus: BLC
IET 2012 (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 Campus: BLC
IET 2013 (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 (0 contact hours).
Components: Lecture Campus: BLC
IET 2014 (0.8) Course ID: 007176
Pumps, Actuators, Accumulators
Introduces the different types of pumps, actuators and accumulators used in fluid power systems which create flow, change fluid power into mechanical power and devides that store energy in the system. Lecture/Lab: 0.8 credits (16.5 contact hours).
Components: Lecture Campus: BLC
IET 2015 (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 Campus: BLC
IET 2016 (0.9) Course ID: 007174
Electrohydraulics/Pneumatics
Introduces the fundamentals of electro-fluid power, including basic electrical principles, basic fluid power principles, electro-fluid power limit devices, common electro-fluid power troubleshooting principles and practices. Lecture/Lab: 0.9 credits (18 contact hours).
Components: Lecture Campus: BLC
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-hydraulic/pneumatic systems. Lecture/Lab: 0.9 credits (19.5 contact hours).
Components: Lecture Campus: BLC
IET 2021 (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 Campus: BLC
IET 2032 (1.4) Course ID: 007170
Hardware & Software
Introduces memory and project organization within a PLC processor, the installation, wiring and configuration of I/O modules, as well as how to start a new project. Lecture/ Lab: 1.4 credits (31.5 contact hours).
Components: Lecture Campus: BLC
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 Campus: BLC
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Contact Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IET 2034</td>
<td>PLC Communication</td>
<td>1.5</td>
<td>1.5</td>
<td>Introduces various elements of industrial communications using PLCs. Addresses common types of control communications in an industrial environment. Discusses PLC addressing used in communications.</td>
</tr>
<tr>
<td>IET 2051</td>
<td>Introduction to Robotics</td>
<td>0.6</td>
<td>0.6</td>
<td>Introduces robotics in regard to industrial robotic safety standards, robotic system composition, robotic motion control, fundamental programming commands, and program editing. Emphasizes the fundamentals of robot control.</td>
</tr>
<tr>
<td>IET 2052</td>
<td>Programming/Editing Robots</td>
<td>1.5</td>
<td>1.5</td>
<td>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.</td>
</tr>
<tr>
<td>IET 2053</td>
<td>Robot and Preventive Maintenance</td>
<td>0.2</td>
<td>0.2</td>
<td>Instructs an operator, technician, engineer, programmer, or student to master the preventive maintenance techniques required for a robot and their backup systems.</td>
</tr>
<tr>
<td>IET 2054</td>
<td>Error Codes &amp; Troubleshooting</td>
<td>1.1</td>
<td>1.1</td>
<td>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.</td>
</tr>
<tr>
<td>IEX 291</td>
<td>Special Problems I</td>
<td>1.0</td>
<td>1.0</td>
<td>This course is designed for the student who has demonstrated specific needs. Prerequisite: Permission of Instructor.</td>
</tr>
<tr>
<td>IEX 292</td>
<td>Special Problems II</td>
<td>1.0</td>
<td>1.0</td>
<td>This is a course designed for the student who has demonstrated specific needs. Prerequisite: Permission of Instructor.</td>
</tr>
<tr>
<td>IEX 293</td>
<td>Special Problems III</td>
<td>1.0</td>
<td>1.0</td>
<td>This is a course designed for the student who has demonstrated specific needs. Prerequisite: Permission of Instructor.</td>
</tr>
<tr>
<td>IFM 111</td>
<td>Client-side Informatics Software</td>
<td>1.0</td>
<td>1.0</td>
<td>Examines client-side informatics software used to define, analyze, design, collect, structure, manage, and share organizational data. Applies inforntics concepts using industry-standard software, such as spreadsheet packages, database management systems, data/document sharing software, and collaboration software.</td>
</tr>
<tr>
<td>IFM 128</td>
<td>Principles of Informatics</td>
<td>1.0</td>
<td>1.0</td>
<td>Examines client-side informatics software used to define, analyze, design, collect, structure, manage, and share organizational data. Applies inforntics concepts using industry-standard software, such as spreadsheet packages, database management systems, data/document sharing software, and collaboration software.</td>
</tr>
<tr>
<td>IFM 130</td>
<td>Business Data Communications</td>
<td>1.0</td>
<td>1.0</td>
<td>Examines data-driven decision making strategies, information sharing technologies, data encoding, cooperative skills, knowledge sharing, organizing, and media literacy.</td>
</tr>
<tr>
<td>IMD 100</td>
<td>Digital Information &amp; Communication Technologies</td>
<td>3.0</td>
<td>45.0</td>
<td>Examines 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.</td>
</tr>
<tr>
<td>IMD 114</td>
<td>Information Literacy</td>
<td>3.0</td>
<td>45.0</td>
<td>Examines 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.</td>
</tr>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td>3.0</td>
<td>45.0</td>
<td>Examines 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.</td>
</tr>
</tbody>
</table>
Components: Lecture
Course: 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
Campus: BLC

Components: Lecture
Course: 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
Campus: BLC

Components: Lecture
Course: 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 complex vector 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
Campus: BLC

Components: Lecture
Course: 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
Campus: BLC

Components: Lecture
Course: 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
Campus: BLC

Components: Lecture
Course: IMD 180 (3) Course ID:004786
Intermediate Web Design
Utilizes web design image creation software, used to create professional, aesthetically pleasing, effective, and fully-functional websites. Includes creation of complete websites using industry-standard software; create web graphics such as buttons, borders, and banners; and a comprehensive examination of web design fundamentals. Identifies fundamentals including website layout, navigation, font usage, color schemes, site architecture, with emphasis on creating visually-pleasing websites that effectively communicate the desired content for employers and clients. Prerequisite: IMD 133. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Campus: BLC

Components: Lecture
Course: IMD 210 (3) Course ID:004787
Microsoft Office Applications
Utilizes Microsoft Office applications for the creation, manipulation and integration of information. Includes word processing, spreadsheet, database management, presentations and personal information management. Prerequisite: IMD 100 or equivalent. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC

Components: Lecture
Course: IMD 226 (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
Campus: BLC

Components: Lecture
Course: 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
Campus: BLC

Components: Lecture
Course: IMD 229 (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
Campus: BLC

Components: Lecture
Course: IMD 230 (3) Course ID:004793
Advanced Web Design
Explores existing and emerging web technologies through the role of web designers. Covers topics and issues to include modification of prewritten scripts and applets as well as analysis of current client- and server-side technologies including PHP, MySQL and XML. Students will conclude the course via the creation of a comprehensive, database-driven dynamic website utilizing current client- and server-side technologies including PHP, MySQL and XML. Prerequisite: IMD 180 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC

Components: Lecture
Course: 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
Campus: BLC

Components: Lecture
Course: IMD 235 (3) Course ID:004795
Advanced Word Processing
Students will learn current word processing software from intermediate skills through advanced utilities. 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
Campus: BLC

Components: Lecture
Course: 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: 3.0 credits (45 contact hours).
Components: Lecture
Campus: BLC

Components: Lecture
Course: 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 compositing. 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: 3.0 credits (45 contact hours).
Components: Lecture
Campus: BLC

Components: Lecture
Course: 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 compositing, 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: 3.0 credits (45 contact hours).
Components: Lecture
Campus: BLC

Components: Lecture
Course: 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
Campus: BLC

Components: Lecture
Course: IMD 260 (3) Course ID:006834
Integrated Project Management
Introduces a holistic, integrated approach to managing projects, exploring both technical and managerial challenges. Emphasizes individual project execution and also provides a strategic perspective, demonstrating means to manage projects at the program and portfolio levels. Examines concepts that also include techniques utilized for completion of a project schedule within budgeted cost and according to specific scope. Prerequisite: IMD 210 and an accounting course. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Campus: BLC
IMD 265 (3)  Course ID:006835
Project Management for Information Management & Business
Examines the human relations-based aspect that identifies the significant challenges of managing individuals on project teams represents. Includes the development of team leadership skills and the ability to solve team problems related to human interaction. Develops strategies for effective planning and communications with upper management for successful project implementation. Prerequisite: IMD 260. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Campus: BLC

IMD 267 (3)  Course ID:006836
Microsoft Project Software
Utilizes industry standard project management software for creation, implementation, and completion of projects. Includes how to customize the software to meet individual project needs. Pre-requisite: IMD 260. 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

IMD 271 (1 - 3)  Course ID:004797
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

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
Campus: BLC

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 usability, 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 of individual text and composition work. Pre-requisite: (IMD 115 and IMD 126 and IMD 127 and IMD 128) or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

IMD 280 (3)  Course ID:004799
Portfolio Practicum: Graphic Design
Provides an opportunity to assemble a comprehensive graphic design portfolio using skills learned in 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 graphic design 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
Campus: BLC

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
Campus: BLC

IMD 292 (3)  Course ID:005215
Portfolio Practicum: Web Design
In this capstone course, students will assemble a comprehensive web site design portfolio using skills learned in the IMD Web Design core courses. The purpose of the portfolio will be to assess students overall skills learned in the web design option. It will also be used to provide IMD students with a professional portfolio portfolio to aid in the search for employment. Students will use Adobe Fireworks, Dreamweaver, Flash, Photoshop, and dynamic scripting languages to assemble the comprehensive design portfolio. Prerequisite: (IMD 133 and IMD 160 and IMD 232) or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Campus: BLC

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 with different topics for a maximum of 6 credits per hour. Prerequisite: IMD 100 or consent of instructor. Lecture:3.0 credits (45 contact hours).
Components: Lecture

IMD 299 (1 - 3)  Course ID:004800
Selected Topics in Information Management and Design
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: 1-3 credits (15-45 contact hours).
Components: Lecture
Campus: BLC

IMG 100 (7)  Course ID:004294
Radiography I
Emphasizes the historical perspective, professional ethics, introductory imaging, x-ray tube, patient management, and the role of the radiographer as a member of the health care team. Applies the principles of human anatomy to the study of fundamental radiographic procedures (exposure factors and patient positioning) used for different age groups. Covers procedures of the chest, abdomen, extremities, shoulder girdle, bony thorax, and pelvic girdle. Prerequisite: BIO 139. Corequisite: IMG 101. Lecture: 6.0 credits (90 contact hours). Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory

IMG 101 (4)  Course ID:004295
Clinical I
Provides experience in equipment operation, patient care technical factors for radiographic examinations and in positioning patients accurately for radiographic exams. Prerequisite: Admission to the Radiography Program. BIO 139 and current CPR certification. Corequisite: IMG 100. Clinical: 4.0 credits (240 contact hours).
Components: Clinical

IMG 104 (2)  Course ID:005604
Introduction to Radiography
Introduces radiography with emphasis on the historical perspective, professional requirements, health care environment, cultural diversity, and legal and ethical considerations. Incorporates basic tube function and radiation protection. Prerequisite: BIO 137. Prerequisite or Corequisite: BIO 139. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

IMG 106 (2)  Course ID:005605
Patient Care in Radiography
Examines basic concepts of care relative to patient physical circumstances as well as to the needs of patient and family. Includes communication skills, safety considerations, and infection control. Prerequisite: BIO 137. Prerequisite or Corequisite: BIO 139. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

IMG 108 (4)  Course ID:005606
Radiographic Procedures I
Presents the principles of human anatomy as applied to fundamental radiographic procedures. Includes exposure factors and patient positioning relative to different age groups and to upper and lower extremities, bony and visceral thorax, and abdomen with consideration given to the evaluation of optimal diagnostic images. Prerequisite: BIO 137. Prerequisite or Corequisite: BIO 139. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

IMG 109 (1)  Course ID:005607
Clinical Practice I
Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, and abdomen. Prerequisite: BIO 137. Prerequisite or Corequisite: BIO 139. Clinical: 1.0 credit (60 contact hours).
Components: Clinical

IMG 110 (7)  Course ID:004296
Radiography II
Emphasizes radiographic imaging, related technical factors, and accessories. Applies human anatomy principles to basic radiographic procedures. Includes study of tomography and procedures used for the basic and complex skulls, vertebral column, alimentary canal, and the biliary and urinary systems. Considers special radiographic examination equipment and equipment. Prerequisite: IMG 100 with a grade of C or greater. Corequisite: IMG 111. Lecture: 6.0 credits (90 contact hours). Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

IMG 111 (4)  Course ID:004297
Clinical II
Continues IMG 101 to provide experience with equipment operation, patient care, and procedures for accurate radiographic exposures. Encourages increasing responsibility and autonomy as students build on previously-learned procedures. Prerequisite: IMG 101 with a grade of C or greater. Corequisite: IMG 110. Clinical: 4.0 credits (240 contact hours).
Components: Clinical

IMG 114 (2)  Course ID:005608
Image Production & Acquisition
Provides knowledge-base related to image production and acquisition, and practical experience with digital imaging systems. Prerequisite: IMG 104 and IMG 106 and IMG 108 and IMG 109. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

IMG 116 (2)  Course ID:005609
Advanced Patient Care in Radiography
Examines the basic concepts of medical emergency response and pharmacology related to radiography. Addresses informed consent practices and the use of imaging contrast agents, venipuncture and IV therapy. Includes familiarization to professional practice standards.
Prerequisite: IMG 104 and IMG 106 and IMG 108 and IMG 109. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

**IMG 118 (4)**  
Course ID: 005610

Radiographic Procedures II  
Continues procedures instruction with emphasis on the vertebral column, cranium, gastrointestinal, urinary, and special radiographic procedures. Focuses on the evaluation of optimal diagnostic images. Prerequisite: IMG 104 and IMG 106 and IMG 108 and IMG 109. Lecture: 3.0 credit (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

**IMG 119 (3)**  
Course ID: 005611

Clinical Practice II  
Provides structured clinical experience through competency-based assignments focusing on the upper and lower extremities, bony and visceral thorax, and abdomen. Prerequisite: IMG 104 and IMG 106 and IMG 108 and IMG 109. Clinical: 3.0 credits (180 contact hours).

Components: Clinical

**IMG 201 (3)**  
Course ID: 004298

Clinical III  
Continues IMG 111 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. Requires performance of a critical evaluation of finished radiograph with emphasis on acceptable technical exposure factors and accurate patient and anatomical positioning. Prerequisite: IMG 111 with a grade of C or greater. Clinical: 3.0 credits (180 contact hours).

Components: Clinical

**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, vertebral column, cranium, and contrast studies of the digestive, urinary, and central nervous systems, and arthrography. Prerequisite: IMG 114 and IMG 116 and IMG 118 and IMG 119. Clinical: 3.0 credits (180 contact hours).

Components: Clinical

**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

**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

**IMG 214 (2)**  
Course ID: 005613

Imaging Equipment  
Focuses on the technical aspects of imaging equipment used in radiography including x-ray imaging systems, fluoroscopy, tomography, screens, film, and automatic processing. Introduces quality management in radiography. Prerequisite: IMG 209. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

**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 209. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

**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. Clinical: 6.0 credits (360 contact hours).

Components: Clinical

**IMG 220 (4)**  
Course ID: 004301

Radiography V  
Introduces equipment and advanced modalities used to complement diagnostic radiology. Includes principles of radiation biology, radiation protection, pathology and the systematic classifications of disease. Provides for 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

**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 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

**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. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

**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. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

**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. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

**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. Clinical: 6.0 credits (360 contact hours).

Components: Clinical

**IMG 230 (3)**  
Course ID: 004826

Sectional Anatomy for Advanced Medical Imaging  
Examines the history and evolution of MRI and the physics of radiation and MRI. Examines the study of configuration, collimation, functions, processing, and quality of MRI systems. Prerequisite: IMG 201 or IMG 216 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

**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 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

**IMG 250 (5)**  
Course ID: 004827

Computed Tomography Physics & Instrumentation  
Examines the physical principles and instrumentation involved in computed tomography (CT). Examines the history and evolution of CT, and the physics of radiation and CT. Includes the study of configuration, collimation, functions, processing, and quality of CT systems operations. Prerequisite: IMG 201 or IMG 216 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

**IMG 255 (3)**  
Course ID: 004828

Magnetic Resonance Physics & Instrumentation  
Examines the physical principles and instrumentation involved in magnetic resonance imaging (MRI). Examines the history and evolution of MRI and the physics of radiation and MRI. Includes the study of configuration, collimation, functions, processing, and quality of MRI systems operations. Prerequisite: IMG 201 or IMG 216 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

**IMG 260 (3)**  
Course ID: 005532

Computed Tomography Imaging Procedures  
Examines the procedures, positioning, and equipment involved in computed tomography (CT) imaging. Prerequisite: IMG 201 or IMG 216 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

**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. Touches on clinical application of MRI and MRA, discusses validity and reliability of MRI and MRA exams for body systems. Prerequisite: IMG 201 or IMG 216 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
IMT 275 (3) Course ID:007369
Computed Tomography Clinical Practice
Provides a structured clinical experience through sequential competency-based assignments that focus 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) and AART certification; completion of Radiography Program. Co-requisite: IMG 240 and IMG 250. Clinical: 3 credits (180 contact hours).
Components: Clinical

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 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

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. Corequisite: IMT 100 or consent. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules

IMT 110 (3) Course ID:001580
Industrial Maintenance Electrical Principles
Introduces the theory of electricity and magnetism and the relationship of voltage, current, resistance, and power in electrical circuits. Develops an understanding of alternating and direct current fundamentals. Applies formulas to analyze the operation of AC and DC circuits. Corequisite: IMT 111 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

IMT 111 (2) Course ID:001581
Industrial Maintenance Electrical Principles Lab
Verifies knowledge of basic theory by making measurements in working AC and DC circuits. Provides for the construction of various types of circuits and the measurement of their parameters. Stresses the use of test equipment, safety, and troubleshooting. Corequisite: IMT 110 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules

IMT 115 (2) Course ID:001582
Maintenance Machining I
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 116. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

IMT 116 (5) Course ID:001583
Maintenance Machining I 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 115 or Consent. Laboratory: 5 credits (150 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules

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

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

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

IMT 141 (1) Course ID:005595
Industrial Mechanics Lab
Provides laboratory experiences 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

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

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

IMT 198 (1 - 8) Course ID:001590
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

IMT 199 (1 - 8) Course ID:001591
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

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

IMT 220 (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, sensors, devices, and indicator lights, and 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

IMT 221 (2) Course ID:001593
Industrial Maintenance Electrical Motor Controls II 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, sensors, devices, 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 credits (60 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules

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 industrial 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

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

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

IMT 231 (2) Course ID:001595
Industrial Maintenance of PLCs' 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. Corequisite: IMT 230 or Consent of Instructor. Corequisite: IMT 230 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory

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 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

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 151) with a grade of “C” or greater or consent of instructor. Co-requisite: IMT 251 or consent of instructor. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

IMT 251 (3) Course ID:001599
Maintaining Industrial Equipment II Lab
Complements IMT 250 and consists of advanced, specific and assigned machine repair tasks. Prerequisite: (IMT 150 and 151) with a grade of “C” or greater or consent of instructor. Corequisite: IMT 250 or consent of instructor. Laboratory: 3.0 credits (90 contact hours). Lab: 3.0 credits (90 contact hours).

Components: Laboratory

Course Descriptions

IMT 260 (7) Course ID:00546
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 (MTT 114) or (MTT 110 & MTT 112) or consent of instructor. Lecture: 2 credits (30 contact hours). Lab: 5 credits (150 contact hours).

Components: Lecture

IMT 260 (7) 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 (equiv/ant) Consent of Instructor). Corequisite: IMT 221 or Instructor Consent.

Components: Lecture

Attributes: Course Also Offered in Modules

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 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

Same As Offering: IMT 281

Attributes: Course Also Offered in Modules

IMT 289 (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 for an exit exam that all program graduates must take. Prerequisite: (IMT 120 or ELT 120) and FPX 100 and FPX 101 and IMT 100 and IMT 101 and IMT 110 and IMT 150 and IMT 220 and IMT 221) or consent of instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

Special Problems
Course ID:001602
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

IMT 1001 (0.75) Course ID:005915
Welding for Maintenance Safety
Provides basic instruction needed for student to weld using Oxy-Fuel. Corequisite: IMT 1001 (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 1024 (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, layout, drill bit selection and sharpening, and precision drilling operations. Corequisite: IMT 1154 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, tramming, 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, layout, drill bit selection and sharpening, and precision drilling operations. 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, tramming, 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 2211. 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 2203 (1) Course ID:006418
Motor Control Circuits
Explains aspects of electrical symbols and specialized motor control circuit. Prerequisite: IMT 2202 or Consent of Instructor. Corequisite: IMT 2213. Lecture: 1 credit (15 contact hours).

Components: Lecture

IMT 2211 (0.5) Course ID:006419
Introduction to Motor Controls Lab
Addresses the importance of electrical safety and the general fundamentals of motor controls. Prerequisite: IMT 2201. Laboratory: 0.5 credit (15 contact hours).

Components: Laboratory

Attributes: Course Also Offered in Modules

Course Descriptions

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IMT 2212 (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 2213 (1) Course ID:006421
Motor Control Circuits Lab
Explores aspects of electrical symbols and specialized motor control circuits. Prerequisite: IMT 2212 or Consent of Instructor. Corequisite: IMT 2203. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory

IMT 2221 (0.6) Course ID:006423
Principles in Process Control and Automation
Gives and overview of open and closed loop systems and how they relate to servo and motor encoders. Prerequisite: (IMT 110 and IMT 111) or Consent of Instructor. Corequisite: IMT 2231. Lecture: 0.8 credit (9 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

IMT 2222 (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 2233. Lecture: 0.7 credit (10.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

IMT 2231 (0.5) Course ID:006434
Principles in Process Control and Automation Lab
Provides the lab component for IMT 2221. Covers open and closed loop systems and how they relate to servo and motor encoders. Prerequisite: (IMT 110 and IMT 111) or Consent of Instructor. Corequisite: IMT 2222. Lecture: 0.5 credits (15 contact hours).
Components: Laboratory

IMT 2232 (0.5) Course ID:006435
Industry Standards for Control Circuit Wiring and Troubleshooting Methods Lab
Provides the lab component for IMT 2222. 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: 0.5 credits (15 contact hours).
Components: Laboratory

IMT 2601 (0.5) Course ID:006547
Stamping Press Basics
Addresses press and production safety, various types of presses, and press operations. Pre-requisite: (IMT 115 & IMT 116) or (MTT 114) or (MTT 110 & MTT 112) or Consent of Instructor. Lecture: 0.5. (Contact Hours 7.5).
Components: Lecture

IMT 2602 (0.5) Course ID:006548
Stamping Die Basics
Addresses the basics of stamping dies including the production of dies, die safety, rigging and setup of dies, die bolting and clamping, and OSHA die identification. Prerequisite: IMT 2601 or Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours), Lab: 0.2 credits (6 contact hours).
Components: Lecture

IMT 2603 (1.3) Course ID:006550
Stamping Die Processes
Addresses various stamping die processes such as bending, forming, drawing, squaring, and coinning. Pre-requisite: IMT 2602 or Consent of Instructor. Lecture: 1.3 (Contact Hours 36).
Components: Lecture

IMT 2604 (0.6) Course ID:006549
Metallurgy of Die Components
Addresses the characteristics of various tool and die steels, the properties of low carbon steels and cast iron, and die surface color and treatments. Prerequisite: IMT 2603 or Consent of Instructor. Lecture: 0.1 credits (1.5 Contact Hours), Lab: 0.5 credits (15 contact hours).
Components: Lecture

IMT 2605 (1.2) Course ID:006551
Anatomy of Stamping Dies
Addresses pads and strippers, spring selection, and the characteristics of nitrogen die pressure systems. Prerequisite: IMT 2604 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

IMT 2606 (1.3) Course ID:006552
Repair Decisions
Addresses the process for die repair decisions, basic considerations needed when repairing dies, and the control of bend by adjusting pad pressure. Pre-requisite: IMT 2605 or Consent of Instructor. Lecture: 1.3. (Contact Hours 34.5).
Components: Lecture

IMT 2607 (1.6) Course ID:006553
Die Repair
Addresses the repair of dies including good grounding practice, repairing worn ends, performing shimming of die components, repairing forming ribs and embossments, performing electrical and welding repairs, performing hand finishing, and explaining the repair of nitrogen pressure systems. Prerequisite: IMT 2606 or Consent of Instructor. Lecture: 0.1 credits (1.5 contact hours), Lab: 1.5 credits (45 contact hours).
Components: Lecture

IMT 2801 (0.75) Course ID:006642
Introduction to Programmable Logic Controllers
Provides an overview of Programmable Controllers, their hardware and functions. Prerequisite: ((IMT 220 and IMT221with a grade of C or greater) or (equivalent) or Consent of Instructor). Corequisite: IMT 2811 or Instructor Consent. Lecture: 0.75 credit. (11.25 contact hours).
Components: Lecture

IMT 2802 (0.75) Course ID:006645
Programming Instructions in PLCs Lab
Provides an overview in programming Programmable Logic Controller Timers and Counters. Corequisite: IMT 2812 or Instructor Consent. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 2803 (0.75) Course ID:006646
Number Systems and Data Manipulation in PLCs
Includes different numbering systems, their transfer from one location to another, comparing, manipulation and common math instructions used in PLC. Corequisite: IMT 2813 or Instructor Consent. Lecture. 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 2804 (0.75) Course ID:006647
Advanced Instructions and Troubleshooting PLCs Lab
Provides hands-on experience in programming and addressing basic instructions, internal relays, and latching relays. Includes changing modes of operation. Prerequisite: (((IMT 220 and IMT221with a grade of C or greater) or (equivalent) or Consent of Instructor). Corequisite: IMT 2801 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2811 (0.5) Course ID:006648
Introduction to Programmable Logic Controllers Lab
Provides hands-on experience in programming and addressing basic instructions, internal relays, and latching relays. Includes changing modes of operation. Prerequisite: (((IMT 220 and IMT221with a grade of C or greater) or (equivalent) or Consent of Instructor). Corequisite: IMT 2801 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2812 (0.5) Course ID:006649
Programming Instructions in PLCs Lab
Provides practical experience in programming Programmable Logic Controller Timers and Counters. Corequisite: IMT 2802 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2813 (0.5) Course ID:006640
Number Systems and Data Manipulation in PLCs Lab
Convert numbers systems, perform data manipulation, transfer, and comparison on the numbers as well as program math instructions. Corequisite: IMT 2803 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2814 (0.5) Course ID:006641
Advanced Instructions and Troubleshooting PLCs Lab
Covers program control instructions, sequencers, and shift registers. Includes troubleshooting PLC issues using the forcing command. Corequisite: IMT 2804 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

INF Interior Finishing

INF 120 (3) Course ID:007282
Elementary Programming
An elementary introduction to programming for those with no previous programming experience. Emphasis on understanding how to read and write basic procedural programs, and on understanding the concepts of algorithm and execution. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science, University Course (Northern Kentucky University)
Campus: BLC

INF 125 (2) Course ID:001607
Introduction to Drywall
This course includes cutting and hanging drywall. The in fabrication of walls is included also.
Components: Lecture

INF Advanced Finishing

INF 128 (3) Course ID:007283
Principles of Informatics
Course developing awareness of an information-centric world. Information, communication, computation. Data-driven decision making strategies, information sharing technologies, data encoding, cooperative skills, knowledge sharing, organizing, media literacy. Preparation for upper-level courses in business informatics, communication, computer science, and other informatics disciplines.
Components: Lecture
Attributes: University Course (Northern Kentucky University)
Campus: BLC
INF 260 (3) Course ID:007284
Object Oriented Programming I
Elementary object-oriented programming concepts and practice: types, decisions, loops, methods, arrays, classes; design and problem-solving. An intensive introduction intended for students with programming experience. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: University Course (Northern Kentucky University)
Campus: BLC

INF L 260 (1) Course ID:007285
Object Oriented Programming Laboratory
Laboratory to accompany INF 260 in which students gain hands-on experience in programming and using programming tools such as debuggers. Lab: 1.0 credit (2.0 contact hours).
Components: Laboratory
Attributes: University Course (Northern Kentucky University)
Campus: BLC

INF 282 (3) Course ID:007286
Introduction to Databases
Core concepts for the design, creation, and manipulation of relational databases. Analysis of data requirements, conceptual modeling, definition of the relational model, relational database design and normalization, and database implementation; manipulation of relational databases using relational algebra with SQL. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: University Course (Northern Kentucky University)
Campus: BLC

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

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 troubleshooting. Lecture: 3 credits (45 contact hours).
Components: Laboratory, Lecture

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. Lecture: 3 credits (45 contact hours).
Components: Lecture

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

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

ITP Interpreter Training Program
Overview of the psychological, sociological and cultural impacts of deafness upon children and adults. Explores how deafness affects 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)
Campus: BLC

IVC 140 (16) Course ID:006576
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

IVC 150 (3) Course ID:006577
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. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

IVC 160 (8) Course ID:006578
Invasive Cardiology Clinical Education I
Applies invasive cardiology instruction to the cardiac catheterization laboratory clinical setting. Introduces the responsibilities of the invasive cardiovascular technologist, with emphasis on radiological procedures. Pre-requisite: DMS 105. Clinical: 6.0 hours (360 contact hours). Components: Clinical

IVC 165 (6) Course ID:006579
Invasive Cardiology Clinical Education II
Applies invasive cardiology instruction to the cardiac catheterization laboratory clinical setting. Participation in the responsibilities of the invasive cardiovascular technologist, with emphasis on scrub and circulate duties. Introduces electrophysiology laboratory procedures. Pre-requisite: IVC 160. Clinical: 6.0 credits (360 contact hours). Components: Clinical
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAT 101 (3)</td>
<td>Introduction to Communication Media</td>
<td>002222</td>
<td>Lectures, readings, and other materials provide an introductory survey of the journalism, advertising, and telecommunications 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</td>
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<tr>
<td>JAT 241 (1 - 4)</td>
<td>Components Practice</td>
<td>002223</td>
<td>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</td>
</tr>
<tr>
<td>JOU 101 (3)</td>
<td>Introduction to Journalism</td>
<td>000788</td>
<td>This course surveys the history and social theories of journalism and introduces students to contemporary journalistic practice. Students will learn about the function and operation of print, electronic and on-line news media. Issues and concepts to be covered include the relationship of government to media; press freedom and controls; media ethics, and the impact of global communications. The course also covers the relationship of journalism to advertising, public relations and telecommunications, particularly with regard to new technologies. Lecture: 3 credits (45 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>JOU 204 (3)</td>
<td>Writing for the Mass Media</td>
<td>000794</td>
<td>An introduction to the concepts and techniques of media writing. This course offers hands-on instruction in information gathering, organization, and writing for print, broadcast and on-line media. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (60/30:1 ratio contact hours). Prerequisite: JOU 101 or Consent of Instructor. Components: Laboratory, Lecture</td>
</tr>
<tr>
<td>JPN 102 (4)</td>
<td>Beginning Japanese II</td>
<td>003970</td>
<td>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</td>
</tr>
<tr>
<td>JPN 201 (3)</td>
<td>Intermediate Japanese I</td>
<td>003994</td>
<td>Focuses on developing listening, speaking, reading and writing skills in intermediate level of Japanese. Prerequisite: JPN 102/RAE 121 or equivalent. Lecture: 3 credits (45 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>JPN 202 (3)</td>
<td>Intermediate Japanese II</td>
<td>004208</td>
<td>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</td>
</tr>
<tr>
<td>KHP 100 (1)</td>
<td>Kinesiology and Health Promotion Walking</td>
<td>002299</td>
<td>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</td>
</tr>
<tr>
<td>KHP 101 (1)</td>
<td>Weightlifting</td>
<td>002300</td>
<td>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</td>
</tr>
<tr>
<td>KHP 103 (1)</td>
<td>Art for Senior Citizens</td>
<td>002302</td>
<td>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</td>
</tr>
<tr>
<td>KHP 104 (1)</td>
<td>Beginning Swimming</td>
<td>002304</td>
<td>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</td>
</tr>
<tr>
<td>KHP 106 (1)</td>
<td>Beginning Bowling</td>
<td>002306</td>
<td>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</td>
</tr>
<tr>
<td>KHP 107 (1)</td>
<td>Fitness</td>
<td>002307</td>
<td>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</td>
</tr>
<tr>
<td>KHP 108 (1)</td>
<td>Line Dancing</td>
<td>002308</td>
<td>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</td>
</tr>
<tr>
<td>KHP 109 (1)</td>
<td>Dancing</td>
<td>002309</td>
<td>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</td>
</tr>
<tr>
<td>KHP 115 (1)</td>
<td>Beginning Karate</td>
<td>002315</td>
<td>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</td>
</tr>
<tr>
<td>KHP 116 (1)</td>
<td>Karate</td>
<td>002316</td>
<td>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</td>
</tr>
<tr>
<td>KHP 118 (1)</td>
<td>Golf</td>
<td>002318</td>
<td>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</td>
</tr>
<tr>
<td>KHP 120 (1)</td>
<td>Self Defense</td>
<td>002320</td>
<td>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</td>
</tr>
<tr>
<td>KHP 121 (1)</td>
<td>Aerobics</td>
<td>002321</td>
<td>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</td>
</tr>
<tr>
<td>KHP 122 (1)</td>
<td>Low-Impact Aerobics</td>
<td>002322</td>
<td>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</td>
</tr>
<tr>
<td>KHP 123 (1)</td>
<td>Basketball</td>
<td>002323</td>
<td>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</td>
</tr>
<tr>
<td>KHP 124 (1)</td>
<td>Conditioning</td>
<td>002324</td>
<td>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</td>
</tr>
<tr>
<td>KHP 126 (1)</td>
<td>CPR</td>
<td>002326</td>
<td>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</td>
</tr>
<tr>
<td>KHP 129 (1)</td>
<td>Beginning Weight Training</td>
<td>002329</td>
<td>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</td>
</tr>
<tr>
<td>KHP 130 (1)</td>
<td>Water Aerobics</td>
<td>002330</td>
<td>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</td>
</tr>
</tbody>
</table>
KHP 131 (1) Course ID:002331
Intermediate 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

KHP 132 (1) Course ID:002332
Nautilus
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

KHP 133 (1) Course ID:002333
Safety and First Aid
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

KHP 134 (1) Course ID:002334
Cross-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

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

KHP 136 (1) Course ID:002336
Advanced Walking 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

KHP 138 (1) Course ID:0003855
Yoga
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

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

KHP 140 (1) Course ID:002341
Advanced 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. Assignment of specific title will occur internally in the department. Lab: 3 hours. Prerequisite: Completion of comparable service course or demonstrated competency
Components: Laboratory

KHP 142 (1) Course ID:002342
Advanced Aerobics
Instruction in a variety of motor skills activities. Courses are designed 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

KHP 143 (1) Course ID:002343
Intramurals
Instruction in a variety of motor skills activities. Courses are designed 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

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

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

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 credits (45 contact hours)
Components: Lecture

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

KHP 222 (2) Course ID:002225
Drug Education
This course is designed to prepare educators to offer drug education in the schools. Emphasis is placed on the prevalence of drug use by youth; physiological, psychological, and social effects of various drugs; effective and ineffective approaches to drug abuse prevention; appropriate teaching strategies; and evaluating drug curricula. Lecture: 2 credits (30 contact hours)
Components: Lecture

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. Co-requisite: KHP 235. Lecture: 3.0 credits (45 contact hours)
Components: Lecture

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

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. Co-requisite: KHP 225. Practicum: 2.0 credits (60 contact hours)
Components: Practicum

KHP 240 (3) Course ID:002226
Nutrition and Physical Fitness
Course focuses on the inter-relation between nutrition and physical fitness. The intent is to provide the student with the information necessary to formulate an individualized plan for the achievement and maintenance of adequate nutrition and physical fitness. Weight control will be discussed in this content. Team taught by nutrition faculty and health, physical education and recreation faculty. Lecture, two hours; laboratory, two hours. (Same as NFS 240.)
Components: Laboratory, Lecture

KHP 241 (2) Course ID:000635
Basketball Coaching Fundamentals
Theory and practice in coaching fundamentals involved in basketball. Laboratory: 2 credits (30 contact hours)
Components: Laboratory

LEAD Leadership

LEAD 200 (3) Course ID:005761
Introduction to Leadership Studies
The purpose of this 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 Course (Western Kentucky University)
Campus: OWC

LIT Library Information Technology

LIT 115 (3) Course ID:004801
Introduction to Reference Services
This course presents an introduction to library reference sources and services. Reference interview techniques, use of standard print and online reference tools, bibliographic databases, web search engines and subject guides, and online full-text books, periodicals, documents, and interlibrary loan services are among the topics included. This is a web-based distance course that involves service learning activities. Lecture: 3 credits (45 contact hours)
Components: Lecture

LIT 120 (3) Course ID:007416
Readers’ Advisory Services
Examines library readers’ 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
LIT 124 (3)  Course ID:004802
Library Administration
This course provides an introduction to basic principles of library organization and management. Emphasis is on the practical application of management concepts to the effective administration of library systems. This is a web-based distance course. Prerequisite: LIT 115 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

LIT 132 (3)  Course ID:004803
Library Technical Services
This course is an introduction to library technical services. Acquisitions, processing, cataloging and classification are introduced. This is a web-based distance course. Prerequisite: LIT 115 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

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 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

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 concentrates 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

LIT 243 (3)  Course ID:004807
Library Services for Children
This course is a study of library services for children. Topics include library programming development and production, children’s literature, collection development, Internet resources, and legal issues. This is a web-based distance course that involves service learning activities. Prerequisite: LIT 115 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

LIT 244 (3)  Course ID:005083
Library Services for Young Adults
This course is a study of library services for young adults from 6th to 12th grades. Topics include programming, collection development, the use of the Internet, and ethical and legal issues. Emphasis is on the development and promotion of young adult library services. This is a web-based distance course that involves service learning activities. Prerequisite: LIT 115 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

LIT 247 (3)  Course ID:004808
Library Services for Adults
This is a study of library services for adults. Topics include adult literature, collection development, reader’s advisory service, programming, circulation services, reference services, and customer relations. This is a web-based distance course that involves service learning activities.

Prerequisite: LIT 115 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

LIT 248 (3)  Course ID:004809
Library Services for Preschool Children
This course is a study of library services for preschool children, age 3 to 5 years. Topics include library programming development and production, preschool children’s literature, services for parents and for child care services, collection development, and legal issues. This is a web-based distance course that requires service learning activities. Prerequisite: LIT 115. Lecture: 3 credits (45 contact hours).
Components: Lecture

LIT 280 (3)  Course ID:004810
Genealogy Services in Libraries
This course prepares librarians to provide quality services to genealogical patrons. Topics include: definitions of genealogy and motivations of patrons; genealogical data, sources, and research methods; reference interviews; orientation of patrons to genealogical resources; collection development; interlibrary loan; patron referral; and legal and ethical issues relating to genealogical research. This is a web-based distance course that requires a service learning project. Prerequisite: LIT 115 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

LIT 298 (1 - 3)  Course ID:004811
Selected Topics in Library Information Technology
This course is designed to expand library course offerings as new technologies develop, new issues evolve, and/or to address local library issues. Topics may vary from semester to semester at the discretion of the instructor. Course may be repeated with different topics to a maximum of nine credit hours. This is a web-based distance course that involves service learning activities. Prerequisite: LIT 115 or consent of instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture

LOM 100 (3)  Course ID:006627
Introduction to Logistics Management
Presents an overview of logistics and supply chain management, customer service, and inventory management for personnel working in retail, wholesale, and the manufacturing sectors. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

LOM 101 (3)  Course ID:006628
Transportation
Presents an overview of transportation, the transportation environment, the basic modes of transportation, the regulatory and public policy frameworks, and emerging transportation management issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

LOM 102 (3)  Course ID:006629
Supply Chain Management
Introduces basic supply chain management principles including warehousing, transportation, and distribution. Pre-requisite: LOM 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

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, schedules, 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

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. Prerequisite: LOM 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

LSI 120 (4)  Course ID:004403
Comprehensive Security Specialist
Training for the security professional in all aspects of security, addressing current trends in policies and procedures, including physical security, crime prevention, security surveys and contingency planning for internal and external threats. Prerequisite: 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. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Campus: BLC

LSI 130 (4)  Course ID:004404
GSA: Locks, Vaults & Containers Certified Technician Training
Certification instruction for inspector of GSA locks, vaults and containers. Certified inspectors are able to assess and certify the complete functionality of GSA locks, vaults and containers. Lecture: 0.5 credits (8 contact hours); Laboratory: 1 credit (30 contact hours). Prerequisite: Instruction to successfully service, maintain, perform covert and forced entry, and repair GSA approved security containers. Lecture: 3 credits (45 contact hours).
Components: Laboratory, Lecture
Campus: BLC

LSI 131 (1)  Course ID:004405
GSA: Locks, Vaults & Containers Certified Inspectors Training
A comprehensive overview of the GSA and its requirements. Lecture: 0.5 credits (8 contact hours); Laboratory: 1 credit (30 contact hours). Prerequisite: LSI 130 or consent of instructor.
Components: Laboratory, Lecture
Campus: BLC

LSI 140 (1)  Course ID:004406
Managing Terrorism and Other Crises
An overview of domestic and international terrorist groups, introducing the concept of contingency planning in comparison to other types of operations planning, and providing basic knowledge regarding the management of a bomb threat and identification of explosives and incendiary devices. Prerequisite: 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. Lecture: 1 credit (15 contact hours).
Components: Lecture
Campus: BLC

LSI 146 (2)  Course ID:005105
Crisis Management/Contingency Planning
Crisis Management/Contingency Planning An NIMS approach to a consistent nationwide approach for Federal, State, Local, and Tribal governments to work effectively and efficiently together to prepare for, prevent, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. Lecture: 2 credits (30 contact hours). Prerequisite: 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.
Components: Lecture
Campus: BLC
MA 109 (3) Course ID:005805
College Algebra

Selected topics in algebra. Develops manipulative algebraic skills and mathematical reasoning required for further study in mathematics. Includes brief review of basic algebra, quadratic formula, systems of linear equations, introduction to functions and graphing. 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. Credit not available on the basis of special examination. Prereq: 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 (UK), or appropriate score on the math placement test. Lecture: 3 credits (45 contact hours).

Components: Lecture
Course Equivalents: MAT 150
Attributes: University Course (University of Kentucky)
Campus: BLC

MA 110 (4) Course ID:006622
Algebra and Trigonometry for Calculus

This is a course specifically designed for students intending to enroll in a calculus sequence. Topics will include trigonometric functions, exponentials and logarithms, graphs, polar coordinates, conic sections and systems of conics. Students may not receive credit for MA 110 and either of MA 109 or MA 112. This course is not available for credit to students who have received credit in any higher numbered mathematics course except for MA 123, 162, 199, 201 or 202. Credit is not available by special examination. Lecture, three hours; recitation, two hours per week. Pre-requisites: Two years of high school algebra and a Math ACT score of 23 or above, or consent of department. Lecture: 3.0 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).

Components: Discussion, Lecture
Attributes: QR - Mathematics - AA & AS (CPE), University Course (University of Kentucky)
Campus: BLC

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, tilings, polyhedra, number theory and game theory. of department. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (University of Kentucky)
Campus: BLC

MA 112 (2) Course ID:005806
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 - Mathematics - AA & AS (CPE), University Course (University of Kentucky)
Campus: BLC

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 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 - Mathematics - AA & AS (CPE), University Course (University of Kentucky)
Campus: BLC

MA 114 (4) Course ID:006626
Calculus II

A continuation of MA 113, primarily stressing techniques of integration. Lecture: three hours; recitation, two 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 - Mathematics - AA & AS (CPE), University Course (University of Kentucky)
Campus: BLC

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 - Mathematics - AA & AS (CPE), University Course (University of Kentucky)
Campus: BLC

MA 124 (3) Course ID:006628
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)
Campus: BLC

MA 126 (3) Course ID:006629
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)
Campus: BLC
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 - Mathematics - AA & AS (CPE), University Course (University of Kentucky)**

**Campus:** BLC

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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 - Mathematics - AA & AS (CPE), University Course (University of Kentucky)**

**Campus:** BLC

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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: Lecture**

**Attributes: QR - Mathematics - AA & AS (CPE), University Course (University of Kentucky)**

**Campus:** BLC

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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 - Mathematics - AA & AS (CPE), University Course (University of Kentucky)**

**Campus:** BLC

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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 - Mathematics - AA & AS (CPE), University Course (University of Kentucky)**

**Campus:** BLC

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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**

**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**

**MAI 140 (4)  
**Course ID:004091**

**Medical Assisting Clinical Procedures I**  
Introduces clinical skills and techniques used in the physician’s office for patient examination, diagnosis and treatment. Introduces concepts related to electronic health record (EHR). Presents principles and practical applications related to medical asepsis, infection control, vital signs, routine and specialty patient examinations, diagnostic testing, and treatments with an emphasis on OSHA regulations. Prerequisite: Acceptance into the Medical Assisting Program or Consent of Medical Assisting Coordinator/Director. Lecture/Lab: 4.0 credits (90 contact hours).  
**Components: Lecture**

**MAI 150 (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, filling 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**

**MAI 170 (2)  
**Course ID:004093**

**Department Consent Required**  
**Dosage Calculations**  
Provides a review of basic math 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**

**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 CLA 131 or MIT 103) with a grade of "C" or better. Consent of Medical Assisting Coordinator/Director.  
**Components: Lecture**

**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**

**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**

**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 applications 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 Consent of Program Coordinator.  
**Components: Laboratory, Lecture**

**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, payment procedures, insurance plans and claims, paper and electronic billing methods, and professional fees. Prerequisite: MAI 150 with a grade of "C" or greater Consent of Program Coordinator. Lecture/Lab: 3.0 credits (60 contact hours).  
**Components: Lecture**

**MAI 270 (3)  
**Course ID:004100**

**Pharmacology for the Medical Assistant**  
Examines pharmacology with concentration on prescriptions, drug nomenclature, classification of drugs, 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) Consent of Medical Assisting Program Coordinator/Director. Lecture: 2.0 credits (30 contact hours); Lab: 1.0 credit (45 contact hours).  
**Components: Laboratory, Lecture**

**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**

**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**

**MAI 289 (1 - 4)  
**Course ID:004341**

**Select Topics: Medical Assisting**  
Topics: Various medical assisting topics, issues and trends will be addressed. 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. Lecture; varies; Laboratory: varies. Prerequisite: Consent of instructor.  
**Components: Laboratory, Lecture**

**MAT Mathematics**

**MAT 55 (3)  
**Course ID:004555**

**Pre-Algebra**  
Includes operations on integers, decimals and fractions. Introduces exponents, square roots, percents, ratios, proportions, prime factorization, basic geometry, algebraic expressions, basic linear equations, and applications. Pre-requisite: KCTCS Placement examination. Lecture: 3.0 credits (45 contact hours).  
**Components: Lecture**

**Attributes: Course Also Offered in Modules**

**MAT 55A (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**
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 or KCTCS Placement examination. Lecture: 0.7 credits (10.5 contact hours).

Components: Lecture

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 or KCTCS Placement examination. Lecture: 0.7 credits (10.5 contact hours).

Components: Lecture

MAT 65S (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 055A or KCTCS Placement examination. Lecture: 0.8 credits (12 contact hours).

Components: Lecture

MAT 65S (0.5)  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 055B or KCTCS Placement examination. Lecture: 0.8 credits (12 contact hours).

Components: Lecture

MAT 65S (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 or KCTCS Placement examination. Lecture: 0.5 credits (7.5 contact hours).

Components: Laboratory

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 or KCTCS Placement examination. Lecture: 0.4 credits (6.0 contact hours).

Components: Lecture

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 KCTCS Placement examination. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

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

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. Lecture: 3 credits (45 contact hours).

Components: Lecture

MAT 115 (3)  Course ID:004558  
**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, percents, interest, descriptive statistics, and logical symbolism. Emphasizes applications in the various technologies. Lecture: 3 credits (45 contact hours). Prerequisite: MAT 065 or equivalent as determined by KCTCS placement examination.

Components: Lecture

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. Lecture: 3 credits (45 contact hours). Prerequisite: MAT 065 or equivalent as determined by KCTCS placement examination.

Components: Lecture

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

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. Lecture: 3 credits (45 contact hours). Prerequisite: 1. Math ACT score of 19 or above, 2. Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 3. KCTCS placement exam recommendation.

Components: Lecture

Attributes: QR - Mathematics - AA only (CPE), 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 MAT150 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 21 with concurrent MAT 100 workshop, 3. Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 4. KCTCS placement exam recommendation.

Components: Lecture

Course Equivalents: MA 109  
Attributes: QR - Mathematics - AA & AS (CPE), 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

Course Equivalents: MA 109  
Attributes: QR - Mathematics - AA & AS (CPE), QR - Quantitative Reasoning

MAT 155 (3)  Course ID:004563  
**Trigonometry**
Includes the trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions in rectangular and polar coordinates, and solving trigonometric equations. Emphasizes applications in each topic. (Students may not receive credit for both MAT155 and any other trigonometry or precalculus course.) Lecture: 3 credits (45 contact hours). Prerequisite: 1. Math ACT score of 22 or above, 2. Math ACT score of 19 21 with concurrent MAT150, 3. Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 4. Placement exam recommendation.

Components: Lecture

Course Equivalents: MAT 154  
Attributes: QR - Mathematics - AA & AS (CPE), 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 Equivalents: MAT 160  
Attributes: QR - Mathematics - AA & AS (CPE), QR - Quantitative Reasoning

Course Descriptions
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 Equivalents: MAT 159
Attributes: QR - Mathematics - AA & AS (CPE), 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 - Mathematics - AA & AS (CPE), 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 - Mathematics - AA & AS (CPE), QR - Quantitative Reasoning

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: MAT 170 with a grade of at least 'C'. Lecture/Lab: 4.0 credits (60 contact hours).
Components: Lecture
Course Equivalents: MAT 151
Attributes: QR - Mathematics - AA & AS (CPE), 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 examination, or 4. Consent of instructor.
Components: Lecture
Course Equivalents: MAT 174
Attributes: QR - Mathematics - AA & AS (CPE), 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 - Mathematics - AA & AS (CPE), QR - Quantitative Reasoning

MAT 105 (5) Course ID:005316
Calculus II
Includes applications of integration, advanced integration techniques, sequences and infinite series, and parametric and polar equations. Lecture: 5 credits (75 contact hours). Prerequisite: Calculus I and Trigonometry, or equivalent, with grades of "C" or higher, or Consent of instructor.
Components: Lecture
Course Equivalents: MAT 184
Attributes: QR - Mathematics - AA & AS (CPE), QR - Quantitative Reasoning

MAT 195 (1 - 2) Course ID:004564
Mathematics Workshop
Promotes student success in mathematics by providing supplemental instruction in the form of extra class sessions. Pre-requisite: Mathematics course numbered higher than MAT 100. Lab: 1.0 - 2.0 credits (30-60 contact hours).
Components: Laboratory

MAT 201 (3) Course ID:000905
Mathematical Concepts for Middle and Elementary School Teachers I
Concepts are stressed over manipulation. Topics included are sets and functions, whole numbers, integers, rational numbers, decimals and real numbers, numeration, and elementary number theory. Lecture: 3 hours. Prerequisite: Two years of high school algebra or MA 108R.
Components: Lecture
Attributes: University Course (Eastern Kentucky University) Campus: SMC

MAT 202 (3) Course ID:000850
Mathematical Concepts for Middle and Elementary School Teachers II
Concepts are stressed over manipulation. Topics included are geometry, measurement, the metric system, probability, and basic statistics. Lecture: 3 hours. Prerequisite: MAT 201 with a grade of at least 'C'.
Components: Lecture
Attributes: University Course (Eastern Kentucky University) Campus: SMC

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. Requires 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

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: QR - Mathematics - AA & AS (CPE), QR - Quantitative Reasoning

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. Pre-requisite: Successful completion of Calculus II. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture

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

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: MAT 185 or equivalent, or Consent of instructor. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: QR - Mathematics - AA & AS (CPE), 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: MAT 275 or Consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Mathematics - AA & AS (CPE), QR - Quantitative Reasoning

MAT 0851 (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. Prerequisite: MAT 065 or KCTCS placement examination. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture

MAT 0852 (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. Prerequisite: MAT 0851 or KCTCS placement examination. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture

MAT 0853 (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. Prerequisite: MAT 0852 or KCTCS placement examination. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture

MAT 0854 (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. Prerequisite: MAT 0853 or KCTCS placement examination. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture

MAT 0855 (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. Prerequisite: MAT 0854 or KCTCS placement examination. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Course Descriptions

MAT 0856 (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. Prerequisite: MAT 0855 or KCTCS placement examination. Lecture: 0.8 credits (12 contact hours).

Components: Lecture

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 065 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MAT 1182 (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 065 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MAT 1163 (1)  Course ID:006440
Technical Geometry and Variation
Investigates mathematical concepts from algebra and geometry. Uses applications from the various technologies relevant to these topics including variation and measurement of geometric figures. Prerequisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credit (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 Fct)
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

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

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).

Components: Lecture

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: (IHS 109 or BIO 130 or 135 or (BIO 137 and BIO 139) and (AHS 115 or CLA 131 or OST 103) and Computer Literacy and MBS 103 with a grade of C or better) or consent. Corequisite: MBS 120.

Components: Lecture

MBS Medical Billing Specialist

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. Pre-requisites: (MBS 110 and MBS 120) or Consent

Components: Practicum

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 dimensional and tolerancing techniques is included. Lecture: 2 hours; Laboratory: 4 hours per week.

Components: Laboratory, Lecture

ME 220 (3)  Course ID:000837
Engineering Thermodynamics I
Fundamental principles of thermodynamics. Prerequisite: PHY 231. Prerequisite or concurrent: MA 214.

Components: Lecture

MFG Manufacturing Technology

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, pneuma/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, pneuma/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 hours of approved technical electives (see Manufacturing Engineering Technology technical elective list) or consent of instructor.

Lecture/Lab: 3 credit hours (60 contact hours).

Components: Lecture

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. Lecture/Lab: 3 credit hours (60 contact hours).

Components: Lecture

MFG 135 (6)  Course ID:006671
Fundamentals of Mechatronics
Introduces the student to the basics of Mechatronic systems and the operation of electrical, mechanical, pneuma/hydraulic, and Programmable Logic Control components in an advanced manufacturing system. Combines basic operational and analytical skills with critical thinking and applied troubleshooting. Teaches the students to troubleshoot a multitude of problems involved in typical electrical, mechanical, and hydraulic/pneumatic systems. (Credit may not be earned for this course if the student has earned credit for MFG 125 or MFG 130.) Pre-requisite: ENGT110 and at least five hours of approved technical electives (see Manufacturing Engineering Technology technical elective list) or consent of instructor. Lecture/ Lab: 6 credit hours (120 contact hours).

Components: Lecture

ME 175 (2)  Course ID:006672
Lean Operations
Introduces students to the principles and practices of lean operations. Employs a lean simulation and examples from Toyota and other lean practitioners to introduce students to lean practices. Discusses Total Productive Maintenance. Lecture/ Lab 2 credit hours (30 contact hours).

Components: Lecture

Attributes: Course Also offered in Modules

Campus: OW

313
MGT 256 (3) Course ID:004901
Operations Management
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: Lecture
Campus: BLC

MGT 258 (3) Course ID:006642
Project Management
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: Lecture
Campus: BLC

MGT 267 (3) Course ID:004913
Introduction to Business Law
The student is introduced to the state and federal court systems, tort and criminal law, law of contracts, partnerships, sales of goods, government regulations, bailments and negotiable instruments. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC

MGT 274 (3) Course ID:004914
Human Resource Management
The student is introduced to the basic methods of recruiting, selecting, training, compensating, and maintaining a productive workforce. Concepts of effective employee relations including collective bargaining, contract administration, and safety and health programs are introduced. Techniques for systematic human resource planning and development of policies consistent with government regulations are emphasized. Prerequisite: MGT 283 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC

MGT 283 (3) Course ID:004916
Principles of Management
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. Prerequisite: BA 160/MGT 160, B&E 100 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC

MGT 284 (3) Course ID:004917
Applied Management Skills
A capstone course in which management techniques and theories are applied with emphasis on the action-skills that managers need for success. Course topics include delegating, motivating employees, team-building, conflict management, coaching and managing change. Prerequisite: BE 233/MGT 283 or prior supervisory experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC

MILS Military Science

MILS 101 (1) Course ID:005309
Foundations of Officership
Introduces students to the basic officer competencies and establishes a firm foundation for continued study in higher ROTC courses. Instills basic life skills pertaining to personal fitness and interpersonal communication skills. Introduces students to the US Army values, national values, and expected ethical behavior. Exposes students to the unique duties and responsibilities of officers and the expectations of selfless service, dedication and duty to the nation. Introduces the basic soldier skills and introduce squad level tactical operations. Develops leadership potential through practical exercises. Laboratory: 1 credit (30 contact hours).
Components: Laboratory
Campus: BLC

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

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

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

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: MIT 104. Co-requisite: BIO 135 or Equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

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. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

MIT 240 (3) Course ID:005460
Business Ethics and Self Management
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: Lecture

MIT 241 (3) Course ID:005476
Small Business Management
Students are introduced to the many facets of establishing, operating and/or owning a small business. Topics include legal forms of business organization, finance, accounting, insurance, governmental regulations and assistance, economics, marketing, and management principles. Prerequisite: MGT 160 or B&E 100, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC

MIT 250 (3) Course ID:004900
Small Business Management
Students are introduced to the many facets of establishing, operating and/or owning a small business. Topics include legal forms of business organization, finance, accounting, insurance, governmental regulations and assistance, economics, marketing, and management principles. Prerequisite: MGT 160 or B&E 100, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC

MIT 301 (3) Course ID:004902
Quality Management Principles
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. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC

MIT 302 (3) Course ID:004903
Introduction to Business
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: Lecture
Campus: BLC

MIT 303 (3) Course ID:004904
Quality Management Principles
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. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC

MIT 304 (3) Course ID:004905
Applied Management Skills
A capstone course in which management techniques and theories are applied with emphasis on the action-skills that managers need for success. Course topics include delegating, motivating employees, team-building, conflict management, coaching and managing change. Prerequisite: BE 233/MGT 283 or prior supervisory experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC

MIT 305 (3) Course ID:004906
Contemporary Approaches to Developing the Behavioral
The need for managers to be self-directed before they can manage successfully the work of others is emphasized. Contemporary approaches to developing the behavioral skills needed to improve personal effectiveness are explored. Topics include personal planning and goal setting, time management, stress management, interpersonal and human relations skills. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: BLC
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

MIT 208 (3)  Course ID:004507
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

MIT 212 (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

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

MIT 219 (3)  Course ID:006970
Coding Exam Preparation
Designed to prepare medical coding students to take a certifying exam to become a professional out patient 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

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

MIT 228 (3)  Course ID:006340
Electronic Medical Records
Provides a working knowledge of computerized medical records software in a variety of healthcare facilities. Pre-requisite: MIT 227. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

MIT 230 (3)  Course ID:004109
Medical Information Management
Identifies and applies 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. Concepts mastered for file retention and archiving. Discusses legal and ethical aspects of medical records. Prerequisite: Computer literacy course. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

MIT 295 (3)  Course ID:006571
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

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

MKT 100 (3)  Course ID:001173
Introduction to Marketing
This course introduces the essentials of marketing for small and large organizations and develops concepts such as publicity, promotion, and market research, while emphasizing the importance of communication, interpersonal and management skills. (Keyboarding recommended) Prerequisite: None.
Components: Lecture

MKT 155 (3)  Course ID:004898
Personal Selling
The professional selling process which involves a series of interrelated activities is introduced. Emphasis is placed on planning and delivery of sales presentations. The six selling steps are examined - prospecting, qualifying, presenting, answering objections, closing, and the after-sale service. Students demonstrate effective sales techniques through simulation and role playing. Lecture: 3 credits (45 contact hours).
Components: Lecture

MKT 282 (3)  Course ID:004915
Principles of Marketing
The marketing function is introduced and applied to various types of business organizations with attention to the marketing concept. Topics include the marketing mix of product, price, promotion, and distribution decisions; international marketing; and social responsibility. Prerequisite: MGT 160 or B&E 100, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

MKT 290 (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. Prerequisite: BA 282/MKT 282. Lecture: 3 credits (45 contact hours).
Components: Lecture

MKT 291 (3)  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: Lecture

MKT 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. Prerequisite: BE 291/MKT 291. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture

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: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture

MLT 112 (2)  Course ID:004177
Urinalysis
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. Prerequisite: Admission into the MLT program; 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: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

MLT 115 (2)  Course ID:004178
SEROLOGY
Introduces basic immunological principles. Includes applications of serological testing for the diagnosis and monitoring of diseases and other antigenic responses. Prerequisite: Admission into the MLT program or permission of MLT program director/coordinator. Lecture: 1.5 credits (22.5 contact hours). Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

MLT 119 (3)  Course ID:004179
Applied Laboratory
Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Hematology, Clinical Microbiology, Immunohematology, Urinalysis, Serology, and Clinical Chemistry. Prerequisite: MLT 101 with a grade of “C” or greater; admission into the MLT program or permission of the MLT program director/ coordinator. Lecture: 1.0 credits (15 contact hours). Lab: 2.0 credit (30 contact hours).
Components: Laboratory, Lecture

Attributes: Course Also Offered in Modules

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

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: MLT 205 with a grade of “C” or better or permission of the MLT Program Director/Coordinator. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
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 specimen 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: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
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: 2.0 credit (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Lecture
MLT 209 (2)  Course ID: 006400
Clinical Diagnostic Microbiology II
Exposes the student to a study of anaerobes, spore forming gram positive bacilli, vireology, 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 greater OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Lecture
MLT 215 (4)  Course ID: 004183
Hematology I
Covers hematoepoiesis and classic methodologies of standard hematology procedures. Includes the principles of various automated hematolgy analyzers, histograms and scatagograms. 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: 3.0 credits (45 contact hours). Lab: 1.0 credit (60 contact hours).
Components: Laboratory, Lecture
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 hematology procedures. Pre-requisite: 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
MLT 217 (3)  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 standard hematological parameters to aid in diagnosis. Pre-requisite: Admission into MLT program OR permission of MLT Program Director/MLT Clinical Coordinator. Lecture: 2.0 credit (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Lecture
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 hematology procedures. Pre-requisite: [MLT 215 or MLT 217] with a grade of “C” or greater OR permission of MLT Program Director/MLT Clinical Coordinator. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Lecture
MLT 225 (2)  Course ID: 004185
Immunohematology I
Includes the principles of immunology in relation to blood banking, blood group systems, donor processing and screening, antibody screening, and blood components. Pre-requisite: 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
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: 1.0 credit (15 contact hours). Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
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. Pre-requisite: MLT 101 with a grade of “C” or greater; permission of MLT program director/coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (75 contact hours).
Components: Laboratory, Lecture
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. Pre-requisite: MLT 101 with a grade of “C” or greater and admission into the MLT program) or MLT Program Coordinator/Director. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
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 chemistries. Pre-requisite: 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
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. Pre-requisite: Admission into MLT program OR permission of the MLT Clinical Coordinator/MLT Program Director. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Lecture
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. Pre-requisite: MLT 247 with a grade of “C” or greater. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Lecture
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. Pre-requisite: 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 insure 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
MLT 279 (4 - 5)  Course ID: 004254
Practicum II
Develops career entry level performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Provides opportunities 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. A prescribed schedule of rotations in various departments of the laboratory is provided for each individual student by the MLT program director.). Pre-requisite: MLT 101 with a grade of “C” or greater; OR admission into MLT program; OR permission by MLT program director/coordinator.
Components: Practicum
Attributes: Course Also Offered in Modules
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 Urinals. Pre-requisite: 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. Pre-requisite: 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
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 insure 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 or 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 insure 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 2791 (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 credits (120-150 contact hours).
Components: Practicum

MLT 2792 (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

MNG 123 (4) Course ID:000576
Mining Electricity I
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, permissible, underground and surface law, solid-state, and national instruments and applications. Co-requisite: MNG 125. Lecture: 4.0 credit hours (60 contact hours).
Components: Lecture

MNG 125 (1) Course ID:005266
Mining Electricity I 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, permissible and maintenance.
Corequisite: MNG 123. Laboratory: 1.0 credits (30 contact hours).
Components: Laboratory

MNG 150 (3) Course ID:000567
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

MNG 160 (3) Course ID:006646
Elements of Underground Mining Lab
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

MNG 161 (1) Course ID:006647
Elements of Underground Mining Lab
Introduces study of underground 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 160. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

MNG 170 (2) Course ID:006648
Elements of Surface Mining Lab
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: Laboratory

MNG 171 (1) Course ID:006649
Elements of Surface Mining Lab
Introduces topic of mining issues in mining 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

MOR 100 (3) Course ID:000731
Medical Office Radiography Clinical
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 1396b and 507 9AR 1.450. Lecture/ Lab: 3 credits (75 contact hours). (45:1 ratio).
Components: Lecture
Course Equivalents: NAA 100

MOR 105 (3) Course ID:000731
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 permissible. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture

MOR 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

MOR 274 (3) Course ID:000722
Mine Safety
Introduces mine safety, program organization, safety training, mine rescue operations, and the role of state and federal governments in mine safety. Includes field trips as an integral part of the course. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

MOR 275 (3) Course ID:000725
Mine Management
Covers basic principles of business management and their specific applications to mine operations. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

MNG 175 (1) 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 instructor; 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

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. Corequisite: MOR 115. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture

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 (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 (150 contact hours).
Components: Clinical
MRN 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: MRN 100 and MRN 115 with a grade of C or better. Co-requisite: MOR 117 Advanced Medical Office Radiology Clinical. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credit (60 contact hours).
Components: Laboratory, Lecture
Campus: JFC

MRN 119 (3) Course ID: 007112
Advanced Medical Office Limited Radiography
Clinical
Apply the principles and procedures learned in MOR 100 and MRN 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: MRN 100 and MRN 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
Campus: JFC

MRN 100 (3) Course ID: 006705
Intro to Marine Technology
Provides fundamental concepts of nautical science expected of personnel working aboard an inland towing vessel. Includes basic terminology, types of equipment encountered aboard the vessel, skills sets needed in day-to-day operations, and a general knowledge of towboat operations. Pre-requisite: Instructor consent. Lecture: 3 credits (45 contact hours).
Components: Lecture

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

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

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

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

MRN 199 (6) Course ID: 006708
Marine Co-Op Experience I
Gives students experience in a higher level position in the marine industry. Provides compensation for the 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

MRN 200 (3) Course ID: 006709
Shipboard Deck Operations
Provides specific responsibilities, policies, training, safety and rigging procedures for towboat personnel. Prerequisite: MRN 100. Lecture: 3 credits (45 contact hours).
Components: Lecture

MRN 201 (3) Course ID: 006710
Rules of the Road
Provides an in-depth analysis of the United States Coast Guard (USCG) Navigation Rules with emphasis on the history and interpretation of the rules. Lecture: 3 credits (45 contact hours).
Components: Lecture

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

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 waterways and the governing agencies which establish industry regulations. Lecture: 3 credits (45 contact hours).
Components: Lecture

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

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

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

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

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

MRN 209 (3) Course ID: 006718
Applied Marine Operations
Examines the overall structure of an inland marine towing company with focuses on purchasing, warehousing, dispatching, and human resources. Explores how each department is structured individually and as a corporation to aid in the day to day operations of the company. Lecture: 3 credits (45 contact hours).
Components: Lecture
Campus: WKCTC

MRN 210 (3) Course ID: 006719
Intermodal Transportation
Highlights the history of the movement of goods throughout the U.S. with an emphasis on the interconnectedness of the various modes of transportation and inland towing in particular. Lecture: 3 credits (45 contact hours).
Components: Lecture

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: 5.0 credits (105 contact hours).
Components: Lecture

MRN 214 (4) Course ID: 006715
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

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

MS 110 (4) Course ID: 005485
Mechatronic Systems Electrical Components
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. Prepares the student for the Siemens Mechatronic Systems Certification Level I Exam. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture

MS 120 (4) Course ID: 005486
Mechatronic 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. Prepares the student for the Siemens Mechatronic Systems Certification Level I Exam. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture

MS 130 (4) Course ID: 005487
Mechatronic 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. Prepares the student for the Siemens Mechatronic Systems Certification Level I Exam. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture

MS 150 (4) Course ID: 005488
Mechatronic Systems Programmable Logic Controllers
Introduces the systems approach to the operation of Programmable Logic Control components and the relationship of their application in industrial systems. Provides an overview of Programming fundamentals. Prepares the student for the Siemens Mechatronic Systems Certification Level I Exam. Prerequisite: MS 110 and MS 120. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
MGST 201 (3)  
Course ID: 005596  
Introduction to Materials Science  
Microscopic and macroscopic structure as related to the properties of materials with engineering applications.  
Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Same As Offering: MGST 201  
Attributes: University Course (University of Kentucky)  
Campus: ACTC, ECTCMUs

MSG Massage Therapy  

MSG 100 (4)  
Course ID: 003986  
Musculoskeletal Anatomy & Physiology I  
Provides extensive knowledge of the skeletal system and major joint articulations and an introduction to the musculoskeletal system of the human body from beginning terminology through the study of muscle tissue and neuromuscular fundamentals.  
Pre-requisite Or Co-requisite: (CLA131 or OST103 or AHS115).  
Co-requisite: MSG 125.  Lecture: 4 credits (60 contact hours).  
Components: Lecture  
MSG 110 (4)  
Course ID: 003987  
Musculoskeletal Anatomy and Physiology II  
Details muscular interactions at major joint articulations including biomechanical concepts and muscles, joints, and innervations of the upper and lower extremities.  
Pre-requisite: MSG 125.  Pre-requisite Or Co-requisite: MSG135.  Lecture: 4 credits (60 contact hours).  
Components: Lecture  
MSG 125 (3)  
Course ID: 003990  
Massage Techniques I  
Introduces theory and technique of Swedish massage, including the history and benefits of massage, scope of practice, and performance of a one-hour full body systemic Swedish massage.  
Co-requisite: MSG 100.  Lecture: 1.0 credit (15 contact hours).  
Lab: 2.0 credits (60 contact hours).  
Components: Laboratory, Lecture  
MSG 135 (3)  
Course ID: 003991  
Massage Techniques II  
Provides extensive knowledge of the skeletal system and major joint articulations and an introduction to the musculoskeletal system of the human body from beginning terminology through the study of muscle tissue and neuromuscular fundamentals.  
Pre-requisite: MSG 100 and MSG 125.  Lecture: 1.0 credit (15 contact hours).  
Lab: 2.0 credits (60 contact hours).  
Components: Laboratory, Lecture  
MSG 205 (3)  
Course ID: 005521  
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: MSG110.  Lecture: 1.0 credit (15 contact hours).  
Laboratory: 2.0 credits (60 contact hours).  
Components: Laboratory, Lecture  
MSG 210 (3)  
Course ID: 005526  
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  
MSG 215 (2)  
Course ID: 003993  
Massage Therapy Student Clinic  
Applies principles and techniques by providing students with experience through a student massage clinic.  
Co-requisite: MSG 210.  Laboratory: 2.0 credits (60 contact hours).  
Components: Laboratory  
MSG 220 (3)  
Course ID: 005522  
Massage Therapy Pathology  
Prepares students to recognize and know common pathologies that they may encounter as a massage therapist.  
Covers pathologies directly linked to the biological systems of the body.  
Co-requisite: MSG 215.  Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
MST Manufacturing Systems Technology  

MST 150 (9)  
Course ID: 007288  
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 digital fundamentals.  
Lecture/Lab: 9.0 credits (180 contact hours).  
Components: Lecture  
MST 200 (3)  
Course ID: 001778  
Advanced Hydraulic Systems  
The advanced hydraulic systems class will cover design, repair, and troubleshooting of hydraulic systems.  
Pre-requisite: FPX 100, FPX 101.  Components: Lecture  
MST 201 (2)  
Course ID: 001777  
Advanced Hydraulic Systems Lab  
The advanced hydraulic systems lab will cover design, repair, and troubleshooting of hydraulic systems.  
Pre-requisite: FPX 100, FPX 101.  Components: Laboratory  
MST 204 (3)  
Course ID: 001780  
Advanced Pneumatic Systems  
Design, repair, and troubleshooting of pneumatic systems will be covered in this course.  
Pre-requisite: FPX 100, FPX 101.  Components: Lecture  
MST 205 (2)  
Course ID: 001781  
Advanced Pneumatic Systems Lab  
Component repair and system troubleshooting will be covered in this lab.  
Pre-requisite: FPX 100, FPX 101.  Components: Laboratory  
MST 206 (3)  
Course ID: 005259  
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).  
Pre-requisite: (ENG 111 and FPX 100) or Consent of Instructor.  Corequisite: MST 207.  Components: Lecture  
MST 207 (2)  
Course ID: 005260  
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 (30 contact hours).  
Pre-requisite: (ENG 111 and ENG 113 and FPX 101) or Consent of Instructor.  Corequisite: MST 206.  Components: Laboratory  
MSY Masonry  

MSY 105 (3)  
Course ID: 001655  
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 use of basic masonry tools.  
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  
MSY 115 (3)  
Course ID: 001656  
Intermediate Masonry  
Builds on proficiency in competencies learned in MSY 105.  
Focuses on laying straight and plum brick to the line with emphasis on bricking gables and building columns.  
Prerequisite: MSY 105 with a grade of C or higher or Consent of Instructor.  Lab: 3.0 credits (90 contact hours).  
Components: Laboratory  
MSY 198 (3)  
Course ID: 001657  
Practicum I  
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.  Practicum: 3.0 credits (90 contact hours).  
Components: Practicum  
MSY 199 (3)  
Course ID: 001658  
Cooperative Education I  
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: 3.0 credits (90 contact hours).  
Components: Co-Op  
MSY 205 (3)  
Course ID: 001660  
Advanced Masonry  
Provides experience in laying quoin corners, bricking in around electrical and plumbing units, and laying door and window brick sills.  
Provides opportunity for students to construct expansion joints, piers, pilasters and retaining and splitface block walls.  
Prerequisite: [(MSY 105 and MSY 115 with a grade of “C” or higher] or Consent of Instructor.  Laboratory: 3.0 credits (90 contact hours).  
Components: Laboratory  
MSY 215 (3)  
Course ID: 001661  
Masonry Lab  
Provides for practice and application of principles, theories and skills taught in MSY 105, MSY 115, MSY 205.  
Prerequisite: [(MSY 105 and MSY 115 and MSY 205) with a grade of “C” or higher] or Consent of Instructor.  Laboratory: 3.0 credits (90 contact hours).  
Components: Laboratory  
MSY 225 (3)  
Course ID: 001662  
Brick Construction  
Covers the application of laying brick to a line overhead, laying a rowlock course, and making weep holes.  
Emphasizes tying intersecting walls with masonry ties and construction cavity walls and planters.  
Prerequisite: MSY 205 with a grade of “C” or higher or Consent of Instructor.  Laboratory: 3.0 credits (90 contact hours).  
Components: Laboratory  
MSY 235 (3)  
Course ID: 001663  
Special Techniques in Brick Construction  
Provides practice in constructing a variety of walls including arches.  
Prerequisite: MSY 225 with a grade of “C” or higher or Consent of Instructor.  Laboratory: 3.0 credits (90 contact hours).  
Components: Laboratory  
MSY 245 (3)  
Course ID: 001664  
Anchors and Reinforcement  
Prepresents different types of reinforcement used in masonry units such as installing wall ties and reinforcing wire, tying intersecting walls with metal ties, installing masonry anchor bolts, setting and anchoring door and window frames, and setting steel lintels and bearing plates.  
Covers the installation of dovetail ties to concrete, setting preformed masonry lintels, and laying of paving brick in a herringbone pattern.  
Prerequisite: MSY 105 with a grade of “C” or higher or Consent of Instructor.  Laboratory: 3.0 credits (90 contact hours).  
Components: Laboratory
### 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

### 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

### MSY 255 (3) Course ID:001667
Glass Blocks and Tile
Provides students with the opportunity to lay structural clay tile, glazed tile, glass block, and set coping tile. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory

### 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 or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory

### 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, fireplace layout, setting the flue lining, and applying a chimney cap. Prerequisite: MSY 205 with a grade of C or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory

### 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

### MSY 298 (3) Course ID:001671
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

### MSY 299 (3) Course ID:001672
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-Dp

### MT Mathematics

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>004565</td>
<td>Developmental Mathematics Workshop</td>
<td>3.0</td>
<td>90</td>
</tr>
</tbody>
</table>

The purpose of this course is to promote student’s success in developmental mathematics by providing supplemental academic support such as extra class sessions, tutoring, and/or increased monitoring. Developmental mathematics workshop may be associated with any developmental math course offered through KCTCS and may be repeated for each math course. Credit cannot be received by special exam. Laboratory: 1-2 credits (30-60 contact hours). Corequisite: Set by instructor.
Components: Laboratory

### MTT Machine Tool Technology

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>005456</td>
<td>Machine Tool Technology</td>
<td>3.0</td>
<td>90</td>
</tr>
</tbody>
</table>

Provides skills and knowledge needed to progress through the Tool and Die program. Includes safety, bench work and machining operations performed on die and mold applications. Lecture: 1 credit (15 contact hours). Laboratory: 7 credits (210 contact hours).
Components: Laboratory, Lecture

### MU Music

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>000910</td>
<td>MU 101 (3)</td>
<td>Folk and Traditional Music of the Western Continents</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Designed for non-music majors. The primary purpose of the course is to survey the body of music called ethnic, folk, or ‘traditional,’ as it is found in Europe, most of Africa, and the Americas, from a geographic approach. Lecture: 3 hours.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, AH – Humanities

### MUC Music/Class Instruction

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>002238</td>
<td>MUC 175 (1)</td>
<td>Jazz Ensemble</td>
<td>1.0</td>
</tr>
</tbody>
</table>

The study of jazz performance technique and jazz literature through the participation in a jazz ensemble. Can be repeated for a total of 4 credits. Laboratory: 1 credit (3 contact hours). Prerequisite: Consent of instructor.
Components: Laboratory
Attributes: University Course (University of Kentucky)
Campus: BLC

### MUP Music Performance

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>002242</td>
<td>MUP 101 (1 - 3)</td>
<td>Piano</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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/or approval of instructor.
Components: Laboratory

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>002243</td>
<td>MUP 102 (1 - 3)</td>
<td>Voice</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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/or approval of instructor.
Components: Laboratory

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>002246</td>
<td>MUP 201 (1 - 3)</td>
<td>Piano</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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/or approval of instructor.
Components: Laboratory

### MUS Music

<table>
<thead>
<tr>
<th>Course ID</th>
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<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>000837</td>
<td>MUS 100 (3)</td>
<td>Introduction to Music</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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, AH - Humanities

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<tr>
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<th>Credits</th>
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</tr>
</thead>
<tbody>
<tr>
<td>004548</td>
<td>MUS 104 (3)</td>
<td>Introduction to Jazz History</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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. Laboratory: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, AH - Humanities

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</tr>
</thead>
<tbody>
<tr>
<td>006188</td>
<td>MUS 106 (3)</td>
<td>Music in Film</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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 - Humanities, University Course (Morehead State University)
Campus: JFC, WKCTC

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</tr>
</thead>
<tbody>
<tr>
<td>006900</td>
<td>MUS 113 (1)</td>
<td>Class Instruction in Guitar I</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Introduces the fundamentals of guitar playing to beginners. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

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<tr>
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<th>Credits</th>
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</tr>
</thead>
<tbody>
<tr>
<td>006899</td>
<td>MUS 114 (1)</td>
<td>Classical Guitar</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Introduces the fundamentals of guitar playing on an intermediate level. Pre-requisite: Guitar I or consent of instructor. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

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<tr>
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<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>004609</td>
<td>MUS 120 (3)</td>
<td>Music Technology I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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, MP3 files, CD layout, and class projects. Prerequisite: MUS 174 or Consent of Instructor. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory
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. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours). Components: Laboratory, Lecture

MUS 150 (1) Course ID:002231
Class Instruction in Piano I
Introduces the fundamentals of piano playing to beginners. Lab: 1.0 credit (30 contact hours). Components: Laboratory

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

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

MUS 153 (1) Course ID:002234
Class Instruction in Piano IV
Develops the technical 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

MUS 155 (1) Course ID:002235
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

MUS 174 (3) Course ID:002249
Theory for Nonmusic Majors
Introduces basic materials of musical organization, focusing on music reading, rudiments of notation, pitch, scale, and rhythm, and harmonic organization, melodic construction, and 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

MUS 175 (1) Course ID:006791
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

MUS 187 (1) Course ID:002239
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

MUS 192 (1) Course ID:002237
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

MUS 206 (3) Course ID:000857
American Music History
Includes a history of music in America 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 musical developments, events, and styles in music, as well as important historical and sociological trends and movements. Components: Lecture Attributes: AH - Arts and Humanities, AH - Humanities

MUS 207 (3) Course ID:004774
African American Music History
A history of African American music from pre-colonial West African diasporas through American colonial times to the present. Requires listening to recordings, reading the primary text and suggested readings in books and periodicals. Important names, places, events, and styles in music, as well as important historical and sociological trends will be presented within the context of the African American experience. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities, AH - Humanities

MUS 208 (3) Course ID:004775
World Music
A geographic survey of selected music cultures throughout the world with hands-on experience playing the music of diverse cultures, audio/video examples of music-cultures in performances, reading and writing assignments, attendance and reporting at live performances. Includes informational presentations by students, group listening and discussion, simple musical instrument construction, and small group projects. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities, AH - Humanities

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, AH - 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: AH - Arts and Humanities, AH - Humanities

MUS 250 (2) Course ID:000699
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

MUS 261 (2) Course ID:006099
Teaching Music in the Elementary Grades II
Builds on the musicianship skills and techniques learned in MUS 250. 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 250. Prerequisite: MUS 250. Lecture/Lab: 2 credits (45 contact hours). Components: Lecture

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

MUSE Music Education

MUS 222 (3) Course ID:006665
Music for the Elementary Teachers
Music rudiments of music theory and methods for teaching music to elementary school children. Components: Lecture Attributes: University Course (Morehead State University) Campus: ACTC

NAA Nursing Assistant

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: MNA 100 Attributes: Course Also Offered in Modules

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

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 variety of health care settings. Builds upon MNA 100/NAA 100 and prepares the student to perform basic nursing skills at an advanced level. Prerequisite: [(MNA 100 or NAA 100) with a grade of C or above] or Active Status on the Kentucky Nurse Aide Registry (in good standing)]. Corequisite: MNA 100 or NAA 100. Components: Laboratory, Lecture

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 long term care setting. Focus on communication, infection control, safety, resident/patient rights, and basic nursing skills. Prepares the student to perform basic nursing skills at an advanced level. 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 credits (150 contact hours). Components: Lecture

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 1396r and 907 KAR 1:450. Lecture: 2.0 credits (30 contact hours). Components: 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. Prerequisite: NAA 1001. Lab: 0.56 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. Prerequisite: NAA 1002. Clinical: 0.44 credit (20 contact hours).
Components: Clinical

NFS Nutrition and Food Science

NFS 101 (3) Course ID:000898
Human Nutrition and Wellness
Food composition, 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

NGT Natural Gas Technology

NGT 100 (3) Course ID:004990
Delivery of Natural Fuel Gases
Presents the processes and procedures basic to the production, transmission and distribution of natural fuel gas from the gas well through the gas burner. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

NGT 110 (3) Course ID:004991
Preventing/Controlling Worksite Incidents
Provides safety information which is unique to the natural gas industry. Emphasis is placed on effective ways to avoid accidents and injuries at the workplace. Lecture: 1 credit (15 contact hours).
Components: Lecture

NGT 125 (1) Course ID:005024
Compliance With National Fuel Gas Code
A continuation of safety information unique to the natural gas industry. Emphasis is placed on effective ways to avoid accidents and injuries at the workplace. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

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 customers meter. Lecture: 1 credit (15 contact hours).
Components: Lecture

NGT 140 (3) Course ID:004992
Pipeline Construction Safety
A pipeline of construction safety standards in the areas of trenching and excavating, confined spaces and controlling hazardous energy, communicating potential hazards, and traffic control in work zones. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

NGT 150 (3) Course ID:005026
Patrol & Leakage Surveys on Natural Gas Pipeline Facilities
Provides information and practice on the techniques of gas pipeline patroling and leakage survey. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

NGT 160 (3) Course ID:005027
Installing & Maintaining Customer Service Lines & Meter & Regulator Sets
Designed to provide information and techniques for installing and maintaining customer services lines and meter and regulator sets. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

NGT 170 (3) Course ID:004993
Installing Gas Operated Equipment
Designed to provide information and practice for installing gas piping and gas equipment on customer’s premises. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

NGT 180 (3) Course ID:005028
Installing and Inspecting Gas Distribution Piping
Provides information and practices basic to gas pipeline installation and inspection. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

NGT 190 (3) Course ID:005029
Performing Maintenance on Gas Pipelines
Provides information and industry accepted practices related to the maintenance of gas piping systems. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

NGT 200 (3) Course ID:005030
Placing Gas Pipelines Into Service
Provides information and procedures related to pigging, purging, hot tapping and stopping tie-in bypass operations on gas pipelines. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

NGT 210 (3) Course ID:005032
Troubleshooting Cathodic Protection Rectifiers
Presents the electrical circuits basic to protection current rectifiers. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

NGT 220 (3) Course ID:005033
Identifying Principles and Performing Operations Basic to Gas Measurement
Presents the electrical circuits basic to protection current rectifiers. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

NGT 230 (3) Course ID:005034
Inspecting and Maintaining Gas Metering Systems
Provides information and practice basic to gas metering systems. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

NGT 240 (3) Course ID:005035
Operating and Maintaining Gas Pressure Regulating Systems
Provides information and procedures basic to performing maintenance operations on self-operating and pilot operated pressure regulators. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

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 information and procedures 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 pressure, 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 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 safety 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
Course Descriptions

NGT 1402 (1.25) Course ID:006466
Operating Equipment Safely
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: 0.25 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. 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 techniques and procedures 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 characterstics of carbon monoxide and the guidelines for investigation of carbon monoxide. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NGT 1601 (0.75) Course ID:006469
Establishing a Gas Service
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. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1602 (0.75) Course ID:006470
Odorant Levels
Presents federal and Kentucky standards for proper odorant levels with emphasis on monitoring odorant levels. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1603 (0.75) Course ID:006471
Installing Domestic Service
Presents US Department of Transportation and industry-recognized procedures for installing domestic gas service. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1604 (0.75) Course ID:006472
Purging Techniques
Presents the theory and techniques common to purging natural gas lines, including safe practices and isolation of equipment during purging. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1701 (0.5) Course ID:006473
Gas-Operated Appliances
Presents procedures for checking natural gas appliance systems to ensure proper installation and safe operation. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1702 (0.5) Course ID:006474
Servicing Gas Equipment
Presents factors related to the ventilation process, standards to ensure proper combustion and ventilation for gas-operated equipment, and ventilation inspection of gas-operated equipment. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1703 (0.75) Course ID:006475
Venting Gas Equipment
Presents venting requirements for Categories I-IV gas-operated appliances; identifies features and benefits of high efficiency equipment with practice in sizing of vents and inspecting venting systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1704 (1.25) Course ID:006476
Electrical Concepts
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. Lecture: 0.25 credits (3.75 contact hours), Lab: 1 credit (30 contact hours).
Components: Laboratory, Lecture

NGT 1801 (0.5) Course ID:006477
Installing Mains & Lines
Presents practices basic to installing gas mains and service lines with emphasis on safety, standards, and line-marking. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1802 (0.5) Course ID:006478
Pipeline Installation
Examines the preparation of the pipeline right-of-way and the completion of the construction operation; presents the major phases of the inspection process. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1803 (0.5) Course ID:006479
Joining Plastic Pipe
Presents the material specifications and installation practices for polyethylene pipe, joining plastic pipe with mechanical fittings, and identification of methods to control static electricity. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1804 (0.75) Course ID:006480
Plastic Pipe & Heat Fusion
Presents the theory of heat fusing polyethylene pipe and the specification and conditions required to produce an acceptable joint. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1805 (0.5) Course ID:006481
Permanent Field Repairs
Presents common methods and installation practices used to make field repairs on gas piping facilities and natural gas pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1806 (0.25) Course ID:006482
Joining Copper Pipe
Presents materials and techniques for joining copper pipe/tubing. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NGT 1901 (0.5) Course ID:006483
Maintaining Line Valves
Presents basic design characteristics and maintenance procedures for pipeline valves. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1902 (0.5) Course ID:006484
Pressure Relief Valves
Presents components and operating characteristics of typical pressure relief valve installations; emphasizes spring. Lecture: 0.5 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1903 (0.5) Course ID:006485
Abandon/Deactivate Facilities
Presents processes and procedures for deactivating/abandoning gas facilities. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1904 (0.5) Course ID:006486
Cast Iron Pipe
Presents materials and procedures for repairing cast iron pipe; emphasizes protection of cast iron pipe while excavating. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1905 (1) Course ID:006487
Inspecting Pipe Wels
Presents duties and responsibilities basic to the practice of inspecting pipe wels; emphasizes the identification and evaluation of weld defects. Lecture: 0.5 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2001 (0.75) Course ID:006488
Tapping/Stoping Pipelines
Presents techniques used to safely tap and stop pipelines under pressure. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2002 (0.75) Course ID:006489
Pipeline Pigging
Presents techniques basic to pigging pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2003 (0.75) Course ID:006490
Purging Techniques
Presents factors affecting the mechanical nature of displacing one gas with another gas by purging. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2004 (0.75) Course ID:006491
Tie-In/Bypass Operations
Presents procedures for performing tie-in/bypass operations. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture
NGT 2051 (0.5) Course ID:006492
Corrosion Control
Presents the characteristics of corrosion, conditions causing corrosion in buried metal piping, and processes and procedures basic to corrosion control. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2052 (0.5) Course ID:006493
Installing Cathodic Systems
Presents procedures for installing cathodic protection systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2053 (0.5) Course ID:006494
Testing Corrosion Systems
Presents methods for monitoring and testing corrosion control systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2054 (0.5) Course ID:006495
Monitoring Corrosion Control
Presents information and techniques for monitoring corrosion control methods on buried metal pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2101 (1) Course ID:006496
Principles of Electricity
Presents the basics of both D.C. and A.C. electrical theory with an emphasis on current flow designs. Lecture: 1 credit (15 contact hours).
Components: Lecture

NGT 2102 (1) Course ID:006497
Rectifier Components
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. Lecture: 0.50 credits (7.5 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2103 (1) Course ID:006498
Rectifiers
Presents information and techniques for putting cathodic protection rectifier systems into service. Lecture: 0.5 credits (7.5 contact hours) Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2201 (0.5) Course ID:006499
Gas Measurement
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. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2202 (1) Course ID:006500
Maintaining Line Valves
Presents 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: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2203 (0.5) Course ID:006501
Pipeline Heaters
Presents 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
Presents 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
Presents 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
Presents operating principles of turbine type 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 2303 (0.5) Course ID:006506
Diaphragm Meters
Presents 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
Presents 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 2305 (0.5) Course ID:006508
Pressure Relief Valves
Presents purpose and operating characteristics of pressure relief valves; emphasizes interpreting, testing and maintenance of relief valves. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2306 (0.5) Course ID:006509
Recording Charts
Presents basic technology used to transfer information to a recording chart; covers how to change, interpret, and send charts. 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
Presents 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
Presents concepts and principles basic to the operation and selection of pressure regulators and the control of gas pressures. 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
Presents 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
Presents 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
Presents the fundamental operating and maintenance procedures for Mercury instruments, gauges and indexes. Lecture: 0.5 credits (7.5 contact hours).
Components: Laboratory, Lecture

NIP Nursing Integrated Program

NIP 102 (3) Course ID:006847
Introduction to Pharmacology
Introduces dosage calculations and medication administration of commonly used medications. Includes an overview of common drug classifications, drugs and their effects. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Incorporates the fundamentals of safety: caring, diversity, ethics, excellence, holism, integrity, and patient-centeredness. Integrates the incorporating 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 DST105 or 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: AHS 100, NIP 116. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

NIP 116 (10) Course ID:006838
Fundamentals of Nursing
Focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse clients utilizing the six integrated concepts of nursing practice: context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. Explores current and historical issues impacting nursing. Introduces framework for organizing the care of clients with alterations in basic human needs by incorporating the seven core values of caring, diversity, excellence, integrity, ethics, holism, and patient-centeredness. Focuses on the integration of knowledge, skills acquisition, and critical thinking in the provision of prudent health care delivery. Examines client’s needs, health promotion, basic human needs, prevention of complication as related to mechanisms of self-defense including immunity, inflammation, infection, and the surgical patient. Examines client’s needs, health promotion, therapeutic communication, treatment modalities, concepts of mental health and assessment of clients with psychosocial problems. Introduces skills related to mental health care, such as areas of adaptive/maladaptive behaviors and specific mental health disorders in a variety of health care settings. 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 DST105 or 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: AHS 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
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

NIP 128 (10) Course ID: 006842

Medical Surgical Alteration
Focuses on care of clients with stressors to normal lines of defense in hematology, immunity, 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 four values of caring, diversity, excellence, 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 or Co-requisite: NIP 128. 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

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. Explores leadership role transition and critical thinking. Prerequisite: Completion with a grade of “C” or better in NIP 120, NIP128. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Lecture: 2.0 credits (30 contact hours). Clinical: 4.0 credits (180 contact hours).

Components: Clinical, Lecture
Attributes: Course Also Offered in Modules

NIP 205 (4) Course ID: 005436

Pathophysiology for Nursing Practice
Develops knowledge of pathophysiology of complex disease processes. Determines cause and prevention of morbidity and mortality. Applies knowledge in this course to the clinical setting in NIP 210: Advanced Nursing Practice. Focuses on management of care for patients with perinatal complications and high-risk newborns. Integrates concepts of nursing practice, context and environment, knowledge and science, quality and safety, and relationship-centered care. Prerequisite: Completion, with a grade of “C” or better in NIP 120 and NIP 128 OR successful completion of a Practical Nursing curriculum and proof of active unencumbered Kentucky Practical Nurse Licensure. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite or corequisite: NIP 210, MAT 150. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

NIP 210 (6) Course ID: 005437

Advanced Nursing Practice
Focuses on the advanced assessment of diverse individuals throughout the lifespan by incorporating the integrating concepts of nursing practice: context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. Applies knowledge acquired in NIP 205. Pathophysiology for Nursing. Uses the nursing process in care and management of clients with complex health care needs and disorders of self-defense/protection, skin, hair and nails, cancer, hematological system, peripheral vascular system, cardiovascular system, respiratory tract, endocrine system, gastrointestinal system, reproductive system, renal/urinary system, nervous system, sensory system, musculoskeletal system and lymphatic system across the lifespan. Prerequisite: a grade of “C” or better in NIP 120 and NIP 128 OR successful completion of a Practical Nursing curriculum and proof of active unencumbered Kentucky Practical Nurse Licensure. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Prerequisite or corequisite: NIP 116. Lecture: 6.0 credits (90 contact hours). Clinical: 2.0 credits (30 contract hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules

NIP 215 (7) Course ID: 005438

Leadership and Specialty Practice
Prepares the student in the Associate Degree Nursing Program to assume the role of a graduate nurse in the synthesis and application of the nursing process for the holistic care of the patient with complex, multidimensional stressors. Emphasizes leadership and management of care, continued skill development and professionalism: to include ethics, integrity, excellence diversity and caring. Introduces the nursing student to the dynamics and issues of teams, organizations and the healthcare system that require effective leadership interventions and proactive leadership strategies. Emphasizes self-development of leadership attributes, such that every student will be able to recognize effective leadership strategies and will be able to implement these strategies at the appropriate time and place. Integrates theories and concepts from all nursing courses and provides for practice in predominantly distributive health care settings. Emphasizes the utilization of the nursing process, prevention of illness, maintenance of health, and the restoration of wellness of individuals, families, and communities, experiencing adaptation to complex health problems. Utilizes management skills and techniques in the delivery of patient-centered nursing care to facilitate the role transition from student to professional nurse. Utilizes clinical experiences occurring in a variety of healthcare settings that are designed to gain-specialized knowledge in important nursing leadership areas which include cost containment, time-management, staffing, delegation and health system issues in order to benefit the nurse in the leadership and management role. Prerequisite: Completion with a grade of “C” or better in NIP 205. NIP 210 and MAT 150. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Prerequisite or corequisite: ENG 102 and HUM 102. Lecture: 4.0 credits (60 contact hours). Lab/Clinical: 3.0 credits (135 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules
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/or 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 180 and NMI 161) or consent of instructor.  
Prerequisite or Corequisite: CHE 150, Clinical: 2.0 credits (180 contact hours).  
Components: Clinical

NMI 220 (2)  
Course ID:005721  
Clinic 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

NMI 230 (2)  
Course ID:005722  
Radiopharmacy  
Covers procurement, preparation, quality control, dispensing, patient dosage calculation, identification, 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

NMI 240 (4)  
Course ID:005723  
Clinical Procedures III  
Covers imaging and procedures of the urinary system, central nervous system and endocrine systems including appropriate interventional and 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

NMI 250 (4)  
Course ID:005724  
Clinical Procedures IV  
Covers oncologic imaging procedures, inflammatory/ infectious process imaging procedures, radionuclide therapy procedures, non-imaging procedures related to hematology and B12 absorption / excretion and pediatric imaging. Pre-requisite: [NMI 240 and NMI 260) with a grade of C or greater] or consent of instructor. Corequisite: NMI 270 or consent of instructor. Lecture: 4.0 credits (60 contact hours).  
Components: Lecture

NMI 260 (4)  
Course ID:005725  
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. Will include actual clinical experience in an affiliated nuclear medicine clinical setting. Prerequisites: [NMI 220 and NMI 230) with a grade of C or greater] or consent of instructor. Corequisite: NMI 240 or consent of instructor. Clinical: 4.0 credits (360 contact hours).  
Components: Clinical

NMI 270 (4)  
Course ID:005726  
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

NPN 100 (2)  
Course ID:004021  
Introduction to Nursing & Health Care System  
Includes a historical overview of current health care including medical economics, ethical and legal parameters, roles and responsibilities of health care team members with an emphasis on reflective nursing practice. Explores medical terminology, therapeutic communication techniques, concepts of health, health assessment, self care and basic needs related to activities of daily living across the lifespan. 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 Computer Literacy as defined by KCTCS. Prerequisite or Corequisite: [(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. Lecture: 2 credits (30 contact hours).  
Components: Lecture

NPN 101 (6)  
Course ID:005727  
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: care; rest and sleep; and body mechanics. 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 Computer Literacy as defined by KCTCS. Prerequisite or Corequisite: [(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. Lecture: 2 credits (30 contact hours).  
Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules

NPN 106 (6)  
Course ID:005627  
Fundamentals of Nursing Care  
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 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; body mechanics and introduction to 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 Computer Literacy as defined by KCTCS. Prerequisite or Corequisite: [(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. Minimum C grade. Lecture: 1 credit (15 contact hours); Lab/Clinical: 1 credit (45.1 ratio/45 contact hours).  
Components: Laboratory, Lecture  
Attributes: Course Also Offered in Modules

NPN 110 (3)  
Course ID:004023  
Pharmacology I  
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 Computer Literacy as defined by KCTCS. Prerequisite or Corequisite: [(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. Minimum C grade. Lecture: 1 credit (15 contact hours); Lab/Clinical: 1 credit (45.1 ratio/45 contact hours).  
Components: Laboratory, Lecture  
Attributes: Course Also Offered in Modules

NPN 111 (3)  
Course ID:005728  
Pharmacology II  
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 Computer Literacy as defined by KCTCS. Prerequisite or Corequisite: [(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. Minimum C grade. Lecture: 1 credit (15 contact hours); Lab/Clinical: 1 credit (45.1 ratio/45 contact hours).  
Components: Laboratory, Lecture  
Attributes: Course Also Offered in Modules

NPN 115 (6)  
Course ID:004626  
Practical Nursing Bridge Course  
Provides overview of 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, legal 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 CLA 131 or AHS 120 or OST 103 and BIO 135 or PSY 223 and ENG 101 and CIS 100 or equivalency. Current CPR card for Health Care Providers; Current certification must be maintained throughout the program. Proof of active status on the Kentucky Nurse Aide Registry (KNAR). Option: Lecture. Credit: 0.5 credit (7.5 contact hours).

Components: Lecture

NPN 1012 (1) Course ID:006271

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 1013 (1) Course ID:006272

Nutrition

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 nutrition/nutrition; rest and sleep; and health promotion. Prerequisite: NPN 1011 with a C or better. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

NPN 1015 (1) Course ID:006274

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:005569

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 lifelong 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 grade. Prerequisite or Corequisite: BIO 135 or PSY 223 and ENG 101 and CIS 100 or equivalency. Current CPR card for Health Care Providers; Current certification must be maintained throughout the program. Proof of active status on the Kentucky Nurse Aide Registry (KNAR). Option: Lecture. Credit: 0.5 credit (7.5 contact hours).

Components: Lecture

Course Descriptions
NPN 2102 (3) Course ID:005775
Clinical Practicum
Presents the nursing practicum experience in the clinical setting. Prerequisite: ALL OPTIONS: NPN 2101 with a grade of C or greater. Prerequisite or corequisite: OPTION 3: (NPN 215 and NPN 219) or Consent, Minimum C grade. Practicum: 3 credits (135 contact hours).
Components: Practicum

NPN 2151 (0.5) Course ID:005776
Leadership and Management as a Professional Concept
Designed to present content on leadership, management, and regulatory issues for the role of practical nurse. Prerequisite: OPTION 1: NPN 125 and NPN 130 and NPN 135 and NPN 201. Minimum C grade. OPTION 2: NPN 125 and NPN 135. Minimum C grade; OPTION 3: NPN 125 and NPN 140 and NPN 201. Minimum C grade. Prerequisite or corequisite: OPTION 2: NPN 201 and NPN 202. Minimum C grade; OPTION 3: NPN 208 and NPN 210. Minimum C grade. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NPN 2152 (0.5) Course ID:005777
Role Transition from Student to Graduate Practice
Designed to prepare the student for transition to a career in practical nursing. Prerequisite: 2151 Minimum C grade. Prerequisite or corequisite: OPTION 2: NPN 201 and NPN 202. Minimum C grade. OPTION 3: NPN 208 and NPN 210. Minimum C grade. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NRS Nursing

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 NCOLX-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

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 110 or MAT 150 or higher mathematics course 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 (225 clinical hours).
Components: Clinical, Lecture

NRS 102 (10) Course ID:004333
Nursing Care II
Includes the application of problem-solving and critical thinking skills in the care of patients across the life span 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 in the reproductive process. Strengthens the four roles of nursing practice including human flourishing, human judgment, professional identity, and spirit of inquiry while higher level skills are introduced. Includes an integrated clinical practicum of direct patient care in a healthcare facility or health care organization to facilitate the transition from student role to LPN practice. Prerequisite: NRS 101 with letter grade of C or better. Pre-requisite Or Co-requisite: ENG 101 and oral communications course. Lecture: 10.0 credits (300 clinical hours).
Components: Clinical, Lecture

NRS 200 (3) Course ID:004334
LPN-ADN Transition
Facilitates the transition of licensed practical nurses into the nursing mobility program by building upon previous knowledge, attitudes, and cognitive and psychomotor skills using strategies of adult learning. Orient student to the philosophy and organizing framework of the ADN Program and assists the practical nurse to make the role transition to registered nursing. Emphasizes conceptual concepts and beginning problem-solving skills required for registered nursing practice. Upon successful completion of all components of NRS 200, the student will be admitted to NRS 203 and earn eight (8) contact hours for NRS 102 and eight (8) hours for NRS 102 for a total of sixteen (16) contact hours. Prerequisite: Admission to nursing program; BIO 137, BIO 139, and (MT 110 or MT 150 or higher mathematics courses) with a grade of C or better; ENG 101, computer literacy, oral communications course; (PY 110 or PSY 100) and PSY 223. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture

NRS 203 (9) Course ID:004335
Nursing Care III
Applies problem-solving and critical thinking skills in the care of diverse clients/families across the life span with actual or the potential for alterations in health due to complex acute and chronic health problems. Emphasizes leadership, management concepts, critical decision-making, knowledge, judgment, skills and professional values within a legal/ethical framework. Introduces the RN responsibilities in relation to the four roles of nursing practice including human flourishing, human judgment, professional identity, and spirit of inquiry. Pre-requisite: NRS 202 with a grade of “C” or better. Pre-requisite Or Co-requisite: BIO 225 or BIO 227 with a grade of “C” or better; ENG 102. Lecture: 9.0 credits (225 clinical hours).
Components: Clinical, Lecture

NRS 204 (10) Course ID:004346
Nursing Care IV
Integrates previous knowledge and skills into the development of the associate degree nurse. Focuses on the four roles of nursing practice including human flourishing, human judgment, professional identity, and spirit of inquiry with an emphasis on leadership, management, clinical decision-making, collaboration, knowledge, judgment, skills and professional values within a legal/ethical framework. Applies problem-solving and critical thinking skills in the care of diverse clients/families 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 healthcare 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-requisites Or Co-requisite: Prior to or concurrent Heritage/Humanities. Lecture: 10.0 credits (270 clinical hours).
Components: Clinical, Lecture

Admission to the Associate Degree Nursing program. (BIO 137 and MAT 110 or (MAT 150 or higher) with a grade of “C” or better), PSY 110 and Computer Literacy. Prerequisite 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

NSG 106 (9) Course ID:006179
Nursing One
Introduces and applies Gordon’s Functional Health Patterns (FHP) within the context of the contemporary health care system. Emphasizes foundational knowledge of nursing practice, skills acquisition, and care of clients with risk for or actual common chronic health pattern dysfunctions. Prerequisite: Admission to Associate Degree Nursing Program, BIO 137 (within ten years) with a grade of “C” or better, MAT 110 or MAT 150 with a grade of “C” or better, and PSY 110. Prerequisite or Corequisite: 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

NSG 126 (3) Course ID:004280
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.
Components: Lecture

NSG 196 (5) Course ID:006180
Nursing LPN Bridge Course
Builds upon the LVN/LPN experiences in application of core components of nursing. 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. Prerequisite: Admission to Associate Degree Nursing Program, BIO 137 and BIO 139 (within ten years) with a grade of C or better, MAT110 or MAT 150 with a grade of C or better, PSY 110, ENG 101, PSY 223 and Oral Communications Course. Prerequisite or Corequisite: NSG 216. Lecture: 4.0 credits (60 contact hours). Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture

NSG 197 (3) Course ID:005907
Attributes: Course Also Offered in Modules
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. Prerequisite: Admission to the Associate Degree Nursing Program and (BIO 137 and BIO 139 and MAT 110 or MAT 150 with a grade of “C” or better), PSY 110, PSY 223, ENG 101, Oral Communications and Computer Literacy. Prerequisite or corequisite: 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

NSG 199 (2) Course ID:005905
Accelerated Transition: PN-A.D.N Bridge
Provides an accelerated course designed for the LPN/ LVN who demonstrates through competency assessment the ability to build upon previous learning and experience. Focuses on the beginning transition to the RN role, the acquisition of essential skills and the development of critical thinking in the care of 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, a total of 15 credit hours in nursing. Prerequisite: Admission to the Associate Degree Nursing Program and (BIO 137 and BIO 150) or (MAT 110 or MAT 150 or higher) with a grade of ‘C’ or better, ENG 101, PSY 223, ENG 101, Oral Communications, Computer Literacy and a passing score on a national normed PN to RN mobility examination. Corequisite: NSG 215 and NSG 212. Lecture: 5 credit hours) Laboratory: 0.5 credit (22.5 contact hours).

Components: Laboratory, Lecture

NSG 201 (5) Course ID:000790

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 clients experiencing the dysfunctional health patterns of health perception-health management, 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 106 and BIO 137) and a grade of ‘C’ or better, ENG 102. Pre-co-requisite or corequisite: NSG 220 and BIO 225 with a grade of ‘C’ or better. Lecture: 2.0 credits (30 contact hours) Laboratory: 1.0 credit (45 contact hours).

Components: Clinical, Laboratory, Lecture

NSG 215 (1) Course ID:005911

Pharmacology I
Focuses on common drugs, their classifications 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 106 and BIO 137) with a grade of ‘C’ or better and PSY 223. Pre-co-requisite or corequisite: (NSG 210 and NSG 212) with a grade of ‘C’ or higher and ENG 101 and Oral Communications. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

NSG 216 (1) Course ID:006182

Nursing 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. Pre-co-requisite or corequisite: PSY 223 and Oral Communications course. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules

NSG 220 (6) 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 216) with a grade of ‘C’ or better. Corequisite: NSG 200 or BIO 139) with a grade of ‘C’ or higher, ENG 101 and Oral Communications. Lecture: 2.0 credits (30 contact hours). Laboratory: 3.0 credits (135 contact hours). Corequisite: Heritage/Humanities/Foreign Language. Lecture: 2.0 credits (30 contact hours).

Components: Clinical, Laboratory, Lecture

NSG 225 (1) Course ID:005913

Pharmacology II
Focuses on common drugs, their classifications and effects on functional and dysfunctional health patterns (activity-exercise, coping/stress/tolerance, role/relationship, altered self-perception/self-concept, and cognitive perceptual). Emphasizes nursing responsibility, accountability and application of the nursing process regarding drug therapy. (Unsuccessful completion of NSG 225 will require mandatory withdrawal from NSG 230, 201 KAR 20:320). Prerequisite: (NSG 206 and BIO 225) with a grade of ‘C’ or higher and ENG 102. Co-requisite: NSG 230 or consent of instructor. Pre-co-requisite or corequisite: Heritage/Humanities/Foreign Language and NSG 213. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

NSG 226 (1) Course ID:006183

Nursing Pathophysiology 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 Three and Nursing Four. Prerequisite: (NSG 206 and NSG 216) with a grade of ‘C’ or better. Corequisite: NSG 236. Pre-co-requisite or corequisite: BIO 225 (within ten 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

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-co-requisite or corequisite: 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

NSG 236 (9) Course ID:006184

Nursing Three
Includes application of the core components of nursing to the care of child-bearing and child-rearing families experiencing functional and dysfunctional health patterns. Prerequisite: (NSG 206 and NSG 216) with a grade of ‘C’ or better. Corequisite: NSG 226. Pre-co-requisite or corequisite: 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

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. Prerequisite: (NSG 236 and NSG 226) with a grade of ‘C’ or better. Prerequisite or Corequisite: Heritage/Humanities/Foreign Language. Lecture: 5.0 credits (75 contact hours). Laboratory/Clinical: 4.0 credits (80 contact hours, 45:1 ratio).

Components: Clinical, Laboratory, Lecture

Attributes: Course Also Offered in Modules

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

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

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 the healing of the whole person from birth to death. Lecture: 3 credits (45 contact hours).

Components: Lecture
NSG 299 (1 - 4)  Course ID:000531
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 instructor; 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

NSG 1961 (0.4)  Course ID:006305
Validation of Essential Skills
Review of essential skills set. Prerequisite: Admission to LPN to A.D.N. Bridge Program, [(BIO 137 and BIO 139) within ten years, with a grade of C or better] and [(MT 110 or MT 150) with a grade of C or better] and (PSY 100 or PY 110) and PSY 223 and ENG 101 and Oral Communications. Laboratory: 0.4 credit (18 contact hours).
Components: Laboratory

NSG 1962 (1)  Course ID:006306
Role Transition - Level I
Provides transitions from the Licensed Practical Nurse to the role of Associate Degree Nurse. Prerequisite: NSG 1961 with a grade of C or better. Prerequisite or corequisite: NSG 2161 with a grade of C or better if taken as a pre-requisite. Lecture: 1 credit (15 contact hours).
Components: Lecture

NSG 1963 (1)  Course ID:006307
Behavioral Health
Focuses on the nursing care for the client with mental health dysfunctions. Prerequisite: (NSG 1962 and NSG 2161) with a grade of C or better. Lecture: 1 credit (15 contact hours).
Components: Lecture

NSG 1964 (0.3)  Course ID:006308
Introduction to ADN Skills I
Allows students to demonstrate competencies for the care of the mental health client. Prerequisite: NSG 1963 with a grade of C or better. Prerequisite or corequisite: NSG 2162 with a grade of C or better if taken as a pre-requisite. Laboratory: 0.3 credit (13.5 contact hours).
Components: Laboratory

NSG 1965 (2)  Course ID:006309
Medical-Surgical Dysfunctions
Covers the implementation of nursing care for the client experiencing acute and/or chronic dysfunction in Gordon's Functional Health Patterns. Prerequisite: (NSG 1964 and NSG 2162) with a grade of C or better. Lecture: 2 credits (30 contact hours).
Components: Lecture

NSG 1966 (0.3)  Course ID:006310
Introduction to ADN Skills II
Allows students to demonstrate skills competencies for the care of patients. Prerequisite: NSG 1965 with a grade of C or better. Prerequisite or corequisite: NSG 2163 with a grade of C or better if taken as a prerequisite. Laboratory: 0.3 credit (13.5 contact hours).
Components: Laboratory

NSG 2161 (0.2)  Course ID:006311
Principles of Pharmacology
Emphasizes nursing implications and the use of the nursing process in medication administration. Prerequisite: Admission to LPN to A.D.N. Bridge Program, [(BIO 137 and BIO 139) within ten years, with a grade of C or better] and [(MT 110 or MT 150) with a grade of C or better] and (PSY 100 or PY 110) and PSY 223 and Oral Communications and ENG 101 and (NSG 1961 with a grade of C or better). Prerequisite or corequisite: NSG 1962 with a grade of C or better if taken as prerequisite. Lecture: 0.2 credit (3 contact hours).
Components: Lecture

NSG 2162 (0.2)  Course ID:006312
Nurse's Role in Drug Therapy
Focuses on classifications, indications, and effects of common drugs. Emphasizes nursing implications and the use of the nursing process in medication administration. Prerequisite: (NSG 2161) with a grade of C or better. Prerequisite or corequisite: (NSG 1964) with a grade of C or better. Lecture: 0.2 credit (3 contact hours).
Components: Lecture

NSG 2163 (0.6)  Course ID:006313
Pharmacology Agents 1.0
Focuses on classifications, indications, and effects of common drugs. Emphasizes nursing implications and the use of the nursing process in medication administration. Prerequisite: NSG 2162 with a grade of C or better. Prerequisite or corequisite: NSG 1966 with a grade of C or better if taken as a prerequisite. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

NSG 2261 (0.1)  Course ID:006314
Nursing Pharmacology 2.0
Focuses on classifications, indications, and effects of common drugs. Emphasizes nursing implications and the use of the nursing process in medication administration. Prerequisite: Admission to LPN to A.D.N. Bridge Program, [(BIO 137 and BIO 139) within ten years, with a grade of C or better] and [(MT 110 or MT 150) with a grade of C or better] and (PSY 100 or PY 110) and PSY 223 and Oral Communications and ENG 101 and [(NSG 196 and NSG 216) with a grade of C or better]. Prerequisite or corequisite: BIO 225 within ten years, with a grade of C or better and ENG 102 and [(NSG‘2361 and NSG 2362 and NSG 2363) with a grade of C or better if taken as a prerequisite]. Lecture: 0.1 credit (1.5 contact hours).
Components: Lecture

NSG 2262 (0.9)  Course ID:006315
Nursing Pharmacology 2.1
Focuses on classifications, indications, and effects of common drugs. Emphasizes nursing implications and the use of the nursing process in medication administration. Prerequisite: NSG 2261 with a grade of C or better. Prerequisite or corequisite: NSG 2364 with a grade of C or better if taken as a prerequisite. Lecture: 0.9 credit (13.5 contact hours).
Components: Lecture

NSG 2361 (2.5)  Course ID:006316
Childbearing Family
Applies core components of nursing in the care of childbearing families experiencing functional and dysfunctional health patterns. Prerequisite: (NSG 196 and NSG 2161) with a grade of C or better. Prerequisite or corequisite: BIO 225 within ten years, with a grade of C or better and ENG 102. Lecture: 2.5 credit (37.5 contact hours).
Components: Lecture

NSG 2362 (2)  Course ID:006317
Maternal-Newborn Clinical
Applies core components of nursing in the care of childbearing families experiencing functional and dysfunctional health patterns. Prerequisite: NSG 2361 with a grade of C or better. Prerequisite or corequisite: NSG 2281 with a grade of C or better if taken as a pre-requisite. Clinical: 2 credits (90 contact hours).
Components: Clinical

NSG 2363 (2)  Course ID:006318
The Pediatric Client
Applies core components of nursing in the care of childbearing families experiencing functional and dysfunctional health patterns. Prerequisite: NSG 2362 with a grade of C or better. Prerequisite or corequisite: NSG 2281 with a grade of C or better if taken as a pre-requisite. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

NSG 2365 (2)  Course ID:006755
Pediatric Clinical
Applies core components of nursing in the care of childbearing and child-rearing families experiencing functional and dysfunctional health patterns. Pre-requisite: NSG 2364 with a grade of "C" or greater. Clinical: 2.0 credits (30 contact hours).
Components: Clinical

NSG 2461 (2)  Course ID:006320
Medical Surgical Nursing II A
Focuses on classifications, indications, and effects of common drugs. Emphasizes nursing implications and the use of the nursing process in medication administration. Prerequisite: NSG 2162 with a grade of C or better. Prerequisite or corequisite: NSG 1966 with a grade of C or better if taken as a prerequisite. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

NSG 2462 (2)  Course ID:006321
Medical Surgical Nursing II B
Focuses on classifications, indications, and effects of common drugs. Emphasizes nursing implications and the use of the nursing process in medication administration. Prerequisite: NSG 2162 with a grade of C or better. Prerequisite or corequisite: NSG 1966 with a grade of C or better if taken as a prerequisite. Lecture: 2 credits (30 contact hours).
Components: Lecture

NSG 2463 (1)  Course ID:006322
Medical Surgical Nursing II C
Focuses on classifications, indications, and effects of common drugs. Emphasizes nursing implications and the use of the nursing process in medication administration. Prerequisite: NSG 2162 with a grade of C or better. Prerequisite or corequisite: NSG 1966 with a grade of C or better if taken as a prerequisite. Clinical: 1 credit (15 contact hours).
Components: Clinical

NSG 2464 (4)  Course ID:006323
Integrated Clinical Practicum
Allows students to demonstrate skills competencies for the care of patients. Prerequisite: NSG 2463 with a grade of C or better. Prerequisite or corequisite: NSG 2281 with a grade of C or better if taken as a prerequisite. Clinical: 4 credits (180 contact hours).
Components: Clinical

OST Office Systems Technology

OST 101 (1)  Course ID:003768
Keyboarding
Develops skill operating a keyboard by touch. Lab: 1.0 credit (45 contact hours).
Components: Laboratory

OST 105 (3)  Course ID:003769
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, spreadsheets, presentations, databases, and online skills including networking, electronic mail, Web browsing, and Internet...
Lecture: 3 hrs; Laboratory: 0. Prerequisite: ENG 101 or OST 108 and quality of document creation and production.

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Presents various methods of documentation used in occupational therapy for evaluation, intervention, justication 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 (60 contact hours).

Components: Lecture

OTA 125 (2) Course ID:006883
Assistive Technology and Documentation
Presents various methods of documentation used in occupational therapy settings for evaluation, intervention, 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 (90 contact hours).

Components: Lecture

OTA 101 (3) Course ID:006858
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/functional 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

OTA 113 (2) Course ID:006869
Applied Anatomy and Kinesiology
Studies the musculoskeletal and nervous systems of the body. Involves understanding the significance of movement to 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

OTA 115 (2) Course ID:006881
Skills and Interventions I
Develops the basic foundational principles/applications of occupational therapy, such as the concept of basic needs, therapeutic interventions, techniques, applications, analysis, safety, and adaptive skill development as the basis 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

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 served as the basis for remediation, compensating, 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 documentation. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (90 contact hours).

Components: Laboratory

OTA 125 (2) Course ID:006883
Assistive Technology and Documentation
Presents various methods of documentation used in occupational therapy settings for evaluation, intervention, 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

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

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

OTA 146 (3) Course ID:006872
Occupational Therapy in Mental Health
Presents physical and medical conditions that are related to mental health. In many instances, mental illness is the result of mental health dysfunction. This course includes practice models to guide treatment applications, including procedures for multiple conditions in mental health dysfunction. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 3.0 credits (75 contact hours).

Components: Lecture

OTA 206 (2) Course ID:006873
Community Practice
Explores the emerging and current practice areas of occupational therapy in the immediate and future needs. Focuses on the effects of occupational therapy on community wellness and prevention models applied throughout the lifespan. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).

Components: Lecture

OTA 216 (2) Course ID:006884
Media Principles and Procedures II
Provides students the opportunity to apply skills in evaluating and planning occupational therapy for individuals experiencing deficits in occupational performance in a safe and efficient manner. Develops assessment skills in order to plan appropriate treatments applicable to deficits in occupational performance, including fabrication of orthotics and adaptive equipment and techniques. Develops communication skills necessary for documentation and patient interaction. Provides opportunities for students to develop skills in assessment, adaptations, orthotics and appropriate treatment with awareness of ethnic, cultural, and socio-economic factors that impact individuals. Pre-requisite: Admission to OTA program and permission of instructor. Lab: 2.0 credits (90 contact hours).

Components: Laboratory

OTA 225 (2) Course ID:006885
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, and neuro-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 (60 contact hours).

Components: Lecture

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: Lecture

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

OTA 245 (3) Course ID:006876
Pediatric Issues in Occupational Therapy
Explores occupational therapy in the pediatric population. Investigates how physical, emotional, and cognitive processes change through childhood. 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. Lecture/Lab: 3.0 credits (75 contact hours).

Components: Lecture

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 concerns 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

OTA 267 (5) Course ID:007410
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 the Occupational Therapy Assistant Program or 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. Cultivates 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 the Occupational Therapy Assistant Program or permission of instructor. Practicum: 5.0 credits (300 contact hours).

Components: Practicum
OTA 286 (2) Course ID:006880
Clinical Seminar
Provides students an opportunity to share information from their clinical site with both the academic instructor and their classmates. Emphasizes application of information learned to other situations. Prepares students for National Board for Certification in Occupational Therapy (NBCOT) certification examination. Pre-requisite: Admission to OTA program and permission of instructor. Co-requisite: OTA 286 OR OTA 276. Lecture: 2.0 credits (30 contact hours). Components: Lecture

PGL Paralegal Technology

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
Campus: MDC

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 hour). Components: Lecture
Campus: MDC

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. Co-requisite: PGL 111. Lecture: 3.0 credits (45 contact hours). Components: Lecture
Campus: MDC

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
Campus: MDC

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
Campus: MDC

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
Campus: MDC

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
Campus: MDC

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
Campus: MDC

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
Campus: MDC

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
Campus: MDC

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
Campus: MDC

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
Campus: MDC

PGY Physiology

PGY 206 (3) Course ID:008466
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) Campus: BLC

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

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

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

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

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: 6.0 credits (90 contact hours). Components: Lecture

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

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

PHA 250 (1 - 8) Course ID:001936
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

PHB Phlebotomy

PHB 100 (6) Course ID:001938
Phlebotomy
Prepares the student as an integral member of the health-care team and 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: 6 credits (90 contact hours). Components: Lecture

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
PHB 151 (1) Course ID:004072
Phlebotomy for the Health Care Worker
Course covers fundamental techniques in proper venipuncture and capillary collection. Included is a study of medical ethics, laboratory terminology, anatomy and physiology, the circulatory system, communication and record keeping, specimen processing, laboratory safety, isolation procedures and special collection. Pre-requisite: Permission of the instructor. Lecture/Lab: 1.0 credits (30 contact hours).
Components: Lecture
PHB 152 (1) Course ID:004175
Phlebotomy: Clinical Experience
Introduces the student to clinical practice in the phlebotomy department of a laboratory. The student will begin to develop performance skills in routine venipuncture and capillary collection procedures emphasizing performance skills in routine venipuncture and capillary collection procedures. Prerequisite: PHB 151 or PHB 170 or MAI 120. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
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
PHB 155 (2 - 3) Course ID:001939
Phlebotomy Clinical
This course is designed to build on the knowledge acquired in phlebotomy lecture and lab. In this course the student will use external institutions for clinical experience to become more proficient in the performance of routine venipuncture and dermal collections. The student will gain the experience needed to handle routine venipuncture complications and the skills necessary to adequately perform the duties of a phlebotomist. Prerequisite: PHB 151 Phlebotomy for the Healthcare Professional or PHB 100 Phlebotomy. Lab: 2.0 - 3.0 credits (120 - 180 contact hours).
Components: Laboratory
PHB 170 (3) Course ID:006441
Applied Phlebotomy
Teaches proper techniques in 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, special collection procedures, donor collection, specimen processing for the various laboratory departments, venipuncture complications, and quality assurance. Prerequisite: Permission of the CLT Program Director/CLT Clinical Coordinator. Corequisite: PHB 152, Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Lecture

PHI Philosophy

PHI 100 (3) Course ID:000884
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, AH - 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, AH - 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: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, AH - 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, AH - 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, AH - Humanities

PHI 200 (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 through 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, AH - 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 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, AH - 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

PHS Physics

PHS 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

PHX Physics

PHX 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. Prerequisite: MT 115 or MT 125. Lecture: 3 credits (45 contact hours).
Components: Lecture
PHYSICS 172 (2)  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. Prerequisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lab: 2 credit hours (60 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory
PHYSICS 201 (4)  Course ID: 000911
College Physics I
Focuses on the mechanics of matter as governed by Newton's Laws, by the conservation 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 completed PHY 231. Prerequisite: MT 150 or higher or MA109 or an ACT math score of 25 or higher. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).
Components: Discussion, Lecture
Attributes: SL - Science Laboratory
PHYSICS 202 (1)  Course ID: 000627
College Physics I Laboratory
Enhances concepts introduced in PHY 201 through experiments in classical mechanics and thermal physics. Prerequisite Or Co-requisite: PHY 201 or equivalent. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory
PHYSICS 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
PHYSICS 204 (1)  Course ID: 000192
College Physics Laboratory
Enhances concepts introduced in PHY 203 through experiments in electricity, magnetism, and optics. Prerequisite Or Co-requisite: PHY 203 or equivalent. Laboratory: 1.0 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory
PHYSICS 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. Pre-requisite Or Co-requisite: MT 165 or MA114 or equivalent. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).
Components: Discussion, Lecture
Attributes: SN - Science
PHYSICS 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. Pre-requisite Or Co-requisite: MT 275 or MA213 or equivalent. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).
Components: Discussion, Lecture
Attributes: SN - Science
PHYSICS 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
PHYSICS 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. Pre-requisite Or Co-requisite: PHY 232. Laboratory: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory
PHYSICS 1711 (0.5)  Course ID: 006109
PHYSICS 203 (4)  Course ID: 000524
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
PHYSICS 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
PHYSICS 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
PHYSICS 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 (9.38 contact hours).
Components: Lecture
PHYSICS 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
PHYSICS 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 hours).
Components: Lecture
PHYSICS 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
PHYSICS 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
PHYSICS 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
Campus: ECTC
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
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
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
PLB 160 (3)  Course ID: 001947
Plumbing Systems, DWV & Water
Presents a study of designing and sizing water distribution and drain, waste and vent pipes. Studies of code requirements and installation of commercial residential fixtures. Co-requisite: PLB 150 or equivalent. Lecture: 3 credits (45 contact hours).
Components: Laboratory
PLB 161 (2)  Course ID: 001948
Rough-in of Plumbing Fixtures
Develops the skills necessary to rough-in DWV and water piping for residential or commercial applications. Co-requisite: PLB 160. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
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. Co-requisite: PLB 150. Corequisite: PLB 250. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
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
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
PLB 260 (2)  Course ID: 001952
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
PSG 110 (3) Course ID:005276
Polysomnography Level I
Provides the knowledge necessary for entry-level personnel in the basics of polysomnographic technology. Includes instrumentation setup and calibration, recording and monitoring techniques, therapeutic interventions and patient-technologist interactions related to polysomnography. Lecture: 3 credits (45 contact hours).
Components: Lecture

PSG 111 (1) Course ID:005277
Polysomnography Lab I
Provides practical experience on the equipment used during a standard sleep study. The set-up, calibration, attachment, artifact recognition and troubleshooting of electroencephalographic (EEG), electro-oculographic (EOG), electromyographic (EMG), pulse oximetry (SpO2), body position, airflow, chest and abdominal movement detection equipment as well as the application of positive airway pressure and oxygen used in therapeutic interventions will be included. Laboratory exercises to develop effective patient-technologist interactions will also be included. Laboratory: 1 credit (60 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. Components: Laboratory

PSG 115 (3) Course ID:005278
Polysomnography Practice I
Provides clinical experience and training in the basic skills required of an entry-level polysomnographic technologist. Includes instrumentation set-up and calibration, recording and monitoring techniques, documentation, professional issues and patient-technologist interactions related to polysomnographic technology. 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

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 and patient-technologist interactions related to polysomnography. Prerequisite: PSG 110 with a grade of a C or better, or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

PSG 131 (1) Course ID:005280
Polysomnography Lab II
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

PSG 133 (3) Course ID:007064
Pathologies of Sleep and Related Disorders
Develops knowledge of pathophysiology of sleep disorders as well as the effect of co-morbidities on sleep. Presents content on pathologies and related applications for various age groups to include pharmacology, medical emergency recognition and treatment. Pre-requisite: PSG 110 with a grade of C or better or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

PSG 135 (3) Course ID:005281
Polysomnography Practice II
Provides students with experience in advanced aspects of polysomnographic technology. It covers all of the aspects of sleep scoring and event recognition, instrumentation set-up and calibration, recording and monitoring techniques, documentation, professional issues, therapeutic interventions, and patient-technologist interactions related to polysomnographic technology. Clinical: 3 credits (180 contact hours). Prerequisite: PSG 115 with a grade of C or better, or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

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

PSJ 115 (3) Course ID:005068
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

PSJ 116 (3) Course ID:005069
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

PSJ 210 (3) Course ID:005071
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

PSJ 211 (3) Course ID:005072
Jewelry/Metals III
Provides in-depth investigation into tools, techniques, and materials of the professional jeweler/metalsmith including the application of color through enameling and alternative means. Prerequisite: (PSJ 115 and PSJ 117) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSJ 212 (3) Course ID:005073
Metal Casting/Finishing Techniques
Provides the intermediate level jewelry/metalsmith 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

PSJ 215 (3) Course ID:005074
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

PSJ 216 (3) Course ID:005075
Jewelry/Metals Product Development
Explores product development and the business concerns of professional ceramics production. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSJ 220 (2) Course ID:005076
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 115 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSJ 221 (3) Course ID:005077
Jewelry/Metals V
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

PSJ 230 (2) Course ID:005078
Jewelry/Metals Product Development
Explores product development and the business concerns of professional ceramics production. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSJ 230 (6) Course ID:005079
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 210 and PSJ 212 or Consent of Instructor. Lab: 6.0 credits (180 contact hours).
Components: Laboratory
PSM 101 (3)  Course ID:005552
Bluegrass & Traditional Music History I: Geographic Influence & Instrumental Origin
Provides an overview of traditional instruments and their geographic and cultural origins as they relate to the foundation of bluegrass and traditional music genres. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

PSM 105 (1)  Course ID:005553
Recording I
Introduces recording and sound reproduction history, terminology, equipment, and practical session experience. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 107 (1)  Course ID:007257
Songwriting I
Introduces the process of creating original melodies and lyrics under the direction of a professional songwriter. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 112 (1)  Course ID:007258
Individual Stringed Instrument Instruction
Provides an individual stringed instrument study course under the guidance of an experienced professional instructor. Designed to teach performance techniques in a flexible structure. May be repeated with different subtitle for a maximum of 4 credits. Pre-requisite: Audition. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 113 (1)  Course ID:007259
Guitar I
Teaches basic fundamentals of bluegrass and traditional chords, rhythm and simple flat-picking lead along with standard tuning and set-up tips. Pre-requisite: MUS 174 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 114 (2)  Course ID:007260
Bluegrass & Traditional Band/Ensemble
Pairs two or more instrumentalists in a group/ensemble setting, in order to explore the components and structure of a band under the guidance of a professional band leader. May be repeated with different subtitle for a maximum of 8 credits. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSM 117 (1)  Course ID:007261
Songwriting II
Provides guidance through the process of creating and refining original melodies under the direction of a professional songwriter, emphasizing different techniques while overcoming barriers. Pre-requisite: PSM 107 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 118 (2)  Course ID:007262
Bluegrass & Traditional Harmony/Part Singing
Introduces basic bluegrass and traditional harmony/part singing and theory using ear training, number notation and basic chords. Pre-requisite: MUS 174 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSM 121 (3)  Course ID:005557
Bluegrass & Traditional Music History II: Evolution of Old Time, Folk and Early Bluegrass
Provides an in-depth study of old time, folk and early bluegrass music genres and their components, exploring connections between radio, labor conflict, war and early professional musicians. Prerequisite: PSM 101 or Consent of Instructor. Lab: 3.0 credits (45 contact hours).
Components: Lecture

PSM 125 (1)  Course ID:005558
Recording II
Provides practical studio and set-up training for recording sessions utilizing software and computers. Prerequisite: PSM 105 or Consent of Instructor. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 217 (2)  Course ID:007263
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. Pre-requisite: PSM 117 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSM 227 (2)  Course ID:007264
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. Pre-requisite: PSM 217 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

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 barn dances. Prerequisite: PSM 121 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

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

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 250 (3)  Course ID:005566
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 PSA 240). Prerequisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSW 111 (3)  Course ID:005056
Introduction to Furniture Making
Introduces tools, techniques, and materials of the professional wood worker, focusing on actual studio production and design processes in wood and furniture. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSW 115 (3)  Course ID:005057
Furniture Making II
Focuses on the application of complex joiney, design features, and finishing techniques to a given furniture project. Explores historical perspectives and business related topics. Prerequisite: PSM 111 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSW 116 (2)  Course ID:005058
Wood Finishing
Introduces wood finishing and fine furniture making. Prerequisite: PSW 111 and PSW 115) or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSW 117 (3)  Course ID:005059
Wood Turning for Furniture
Covers basic and advanced turning skills including spindle turning and faceplate work and tool sharpening and usage. Prerequisite: PSW 111 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSW 210 (3)  Course ID:005060
Furniture Making III
Focuses on complicated joinery techniques, machine tool operations, advanced finishing applications, and small business considerations. Prerequisite: PSM 115 and PSW 116) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSW 211 (3)  Course ID:005061
Wood Bending and Veneering
Covers construction and design possibilities through techniques of strip lamination and steam bending to create curved shaped parts in furniture. Includes veneering design and applications. Prerequisite: (PSW 115 and PSW 116) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSW 212 (3)  Course ID:005063
Chair Design
Focuses on design and construction for good seating requirements based on sound design and structural integrity. Prerequisite: PSW 117 or Consent of Instructor. Pre-requisite Or Co-requisite: PSW 211. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSW 215 (3)  Course ID:005062
Furniture Making IV
Emphasizes special processes of design, production, and cost efficiencies associated with operating a custom furniture studio including marketing and overall business knowledge. Prerequisite. (PSW 210 and PSW 212) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSW 220 (2)  Course ID:005064
Furniture/Wood Product Development
Includes applications associated with design and construction possibilities with fabricated products. Focuses on C. N. C. machining and CAD design as well as 32-MM and KD (knock down) systems including architectural work and cabinetry design. Prerequisite: (PSW 210 and PSW 211) or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSW 230 (6)  Course ID:005065
Furniture Making V
Focuses on creating a body of work for exhibition and developing a professional portfolio. Prerequisite: (PSW 212 and PSW 215 and PSW 220) or Consent of Instructor. Lab: 6.0 credits (180 contact hours).
Components: Laboratory

PSY Psychology

PSY 110 (3)  Course ID:000563
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, SB - Psychology. Course Also Offered in Modules
Course Descriptions

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, SB - Psychology

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. Lecture: 1.0 credit (30 contact hours).
Components: Lecture

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

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

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. Reading proposal must be approved by instructor. Pre-requisite: PSY 213 and consent of instructor (If PSY 215 is changed to PSY 213 Research Methods)
Components: Laboratory

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 options. 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

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: Laboratory, Lecture

PSY 213 (4) Course ID:002255
Research Methods
A study of the application of scientific methods to psychological research. 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. Prerequisite: 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: Laboratory, Lecture

PSY 223 (3) Course ID:000488
Developmental Psychology
Introduces the principles of developmental psychology as seen in human growth over the entire lifespan, focusing primarily on infancy through adolescence. Emphasizes theory and data relating to developmental aspects of cognition, language, and personality. Lecture: 3 credits (45 contact hours). Prerequisite: PSY 100 or PY 110.
Components: Lecture

PSY 230 (3) Course ID:000387
Psychosocial Aspects of Death and Dying
Examines the biopsychosocial, sociological, and psychological aspects of death and dying. Covers the behavior and attitudes associated with death in preparation for dealing with dying and bereavement. Prerequisite: PSY 110 or SOC 101, or consent of instructor.
Components: Lecture
Attributes: SB - Social Behavior Science, SB - Psychology

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, SB - Psychology

PSY 298 (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, SB - Psychology

PSY 299 (1 - 3) Course ID:000534
Special Introductory Topics in Psychology
Introduces specialized topics in the field of psychology to meet current trends and investigations of contemporary issues in the discipline. May be repeated to a maximum of six credits under different subtitles. Prerequisite: PSY 110 or consent of instructor. Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).
Components: Lecture

PSY 1101 (0.6) 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 physiological psychology and psychological processes. Prerequisite: PSY 1101. Lecture: 0.6 credit (9 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: PSY1102. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 1104 (0.6) Course ID:006218
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) Course ID:006219
Psychological Disorders
Addresses the history, methods, and content of modern psychology to include abnormal psychology and psychological processes. Prerequisite: PSY 1104. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 2231 (0.6) Course ID:006379
Foundations of Development
Introduces the principles of developmental psychology with emphasis on theory and data relating to the physical, cognitive, and psycho-social developmental aspects. Explores prenatal development through the birth process. Prerequisite: PSY 110. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
Campus: WKCTC

PSY 2232 (0.6) Course ID:006380
Infancy through Early Childhood
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of infancy, toddlerhood, and early childhood. Prerequisite: PSY 2231. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
Campus: WKCTC

PSY 2233 (0.6) Course ID:006381
Middle Childhood and Adolescence
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of middle childhood and adolescence. Prerequisite: PSY 2232. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
Campus: WKCTC

PSY 2234 (0.6) Course ID:006382
Emerging and Middle Adulthood
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of emerging and middle adulthood. Prerequisite: PSY 2233. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
Campus: WKCTC

PSY 2235 (0.6) Course ID:006383
Late Adulthood; Death & Dying
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of late adulthood. Explores issues related to death and bereavement. Prerequisite: PSY 2234. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
Campus: WKCTC

PTA Physical Therapist Assistant
PTA 100 (4) Course ID:004009
Orientation to Physical Therapy Practice
Includes orientation to the profession of physical therapy, legal aspects of physical therapy practice, interdisciplinary team, cultural diversity, medical terminology, and introductory patient-care skills such as communication, aseptic techniques, body mechanics, safety procedures, wheelchair management, patient transfers, patient positioning, draping, and vital signs. Prerequisite: Admission to the PTA Program and completion of BIO 137 with a grade of C or better. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules
PTA 120 (2) Course ID:006723
Basic Skills for the PTA
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; 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. Lecture: 2 credits (30 contact hours).
Components: Lecture
Campus: MDC

PTA 121 (2) Course ID:006724
Basic Skills for the PTA Lab
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; stretching; and documentation. Lab experiences will reflect concepts taught in the paired lecture course. Pre-requisite: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: PTA 1501 and PTA 1502 and PTA 120 and PTA 170. Lab: 2 credits (60 contact hours).
Components: Laboratory
Campus: MDC

PTA 125 (1) 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: BIO 137 and admission to the Physical Therapist Assistant Program. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

PTA 150 (6) Course ID:004174
Functional Anatomy and Kinesiology
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: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a grade of C or better. Corequisite: PTA 160 and PTA 170. Prerequisite or Corequisite: PTA 100 with a C or better. Lecture: 3.0 credits (45 contact hours). Lab: 3.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

PTA 160 (3) Course ID:004173
Medical and Surgical Conditions in Physical Therapy
Includes the study of health and disease of all age groups with an emphasis on the etiology, pathology, prevention, data collection, and physical therapy interventions in selected medical and surgical conditions encountered in physical therapy. Pre-requisite: Admission to the PTA Program and completion of BIO 137 and BIO 139 with a grade of C or better. Corequisite: PTA 150 and PTA 170. Prerequisite or Corequisite: PTA 100 with a C or better. Lecture: 3 credits (45 contact hours).
Components: Lecture

PTA 170 (1) Course ID:004013
Clinical Practicum I
Includes clinical observation and practice of selected physical therapy interventions and data collection with the application of knowledge from previous/current PTA courses and general education coursework. Pre-requisite: Option 1 or Option 2: Admission to the PTA Program, Completion of BIO 137 & BIO 139 with a C or better. Corequisite: [Option 1: PTA 150 and PTA 160] or [Option 2: PTA 1501, PTA 1502, PTA 120, and PTA 121]. Prerequisite or Corequisite: PTA 100 with a C or better. Practicum: 1 credit (60 contact hours).
Components: Practicum

PTA 200 (5) Course ID:004017
Modalities & Procedures in Physical Therapy
Includes the basic physical science principles of selected physical therapy interventions, data collection, and selected physiotherapy interventions including wound therapy, compression therapy, safety procedures, gait training, traction, massage, superficial heat and cold, deep heat modalities, electrotherapy, ultraviolet radiation, hydrotherapy, and documentation. Pre-requisite: PTA 100, PTA 1501, PTA 1502, PTA 170. Corequisite: PTA 220, PTA 240. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

PTA 202 (2) Course ID:006725
Therapeutic Modalities in Physical Therapy
Includes the basic physical science, data collection, and principles of selected physical therapy interventions including massage, superficial heat and cold, sound agents, electromagnetic radiation, electrotherapy, biofeedback, traction, and compression therapy. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, PTA 121, PTA 170 with a C or better. Corequisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 203, PTA 240. Student cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Campus: MDC

PTA 203 (2) Course ID:006726
Therapeutic Modalities in Physical Therapy Lab
Develops skills in data collection, documentation, and the application of selected physical therapy interventions including, massage, superficial heat and cold, sound agents, electrotherapy, biofeedback, traction, and compression therapy. Lab experiences will reflect concepts taught in the paired lecture course. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, PTA 121, PTA 170 with a C or better. Co-requisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 203, PTA 240. Student cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lab: 2.0 credits (30 contact hours).
Components: Laboratory

PTA 220 (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, pathological gait, balance problems, thermal injuries, arthritis, amputations and cardiac diseases. Includes therapeutic exercise, orthotics, prosthetics, wellness, and women's health issues. Pre-requisite: Admission to the Physical Therapist Assistant Program and completion of PTA 100, PTA 150, PTA 160, and all general education courses required for completion of the Physical Therapist Assistant program with a grade of C or better. Completion of PTA 170 with a grade of P. Corequisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202, and PTA 240. Student 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: Laboratory
Campus: MDC

PTA 222 (2) Course ID:006727
Pathology & Rehabilitation of Orthopedic Conditions
Includes the study of knee, hip, shoulder, elbow, and ankle and foot conditions. Includes the application of selected physical therapy interventions for management of patients with the following problems: musculoskeletal conditions, pathological gait, arthritis, and amputations. 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 233, PTA 202, 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
Campus: MDC

PTA 223 (2) Course ID:006728
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, 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 233, PTA 202, 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
Campus: MDC

PTA 232 (3) 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. Corequisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 203, PTA 202, 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 (45 contact hours).
Components: Laboratory
Campus: MDC

PTA 240 (2) Course ID:004018
Clinical Practicum II
Includes clinical observation and practice of selected physical therapy interventions and data collection with the application of knowledge from previous/current PTA courses and general education coursework. This course will entail four consecutive weeks of full-time clinical experience. In order to participate in this clinical experience, the student must be earning a grade of C or better in all co-requisite courses. Pre-requisite: [Option 1: Admission to the PTA Program and completion of PTA 100, PTA 150, PTA 160, and all general education courses required for completion of the Physical Therapist Assistant Program with a grade of C or better. Completion of PTA 170 with a grade of P. Corequisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202, 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: Laboratory
Campus: MDC
Neurological Rehabilitation in Physical Therapy  
Focuses on rehabilitation procedures, including assistive devices, for patients of all age groups with disabilities resulting from brain injury, spinal cord injury, and genetic/developmental disorders. Includes normal growth and development and the rationale and techniques of neuromuscular re-education. Prerequisite: Admission to the Physical Therapist Assistant Program and completion of PTA 200 and PTA 220 with a grade of C or better. Completion of PTA 240 with a grade of P. Co-requisite: PTA 280, PTA 260. Lecture: 3 credits (45 contact hours). Laborator: 2 credits (60 contact hours).

Components: Laboratory, Lecture

PTA 254 (1)  
Course ID: 006731  
Pathology & Rehabilitation of Special Populations & 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; and interventary disorders; and wounds. Includes therapeutic exercise and wound care. Pre-requisite: PTA 222, PTA 223, PTA 223, PTA 233, PTA 202, PTA 203 with a C or better. Completion of PTA 240 with a grade of P. Co-requisite: PTA 255, PTA 256, and PTA 280. Students cannot progress to PTA 280 without a grade of C or better in all other co-requisite courses. Lecture: 1 credit (15 contact hours).

Components: Lecture  
Campus: MDC

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 problems: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric disorders; infectious diseases; oncology; thermal injuries; interventional procedures; 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 other co-requisite courses. Lab: 1 credit (30 contact hours).

Components: Laboratory  
Campus: MDC

PTA 260 (2)  
Course ID: 004172  
Seminar in Physical Therapy  
Focuses on rehabilitation procedures, including assistive devices, for patients of all age groups with disabilities resulting from brain injury, spinal cord injury, and genetic/developmental disorders. Includes normal growth and development and the rationale and techniques of neuromuscular re-education. Prerequisite: Admission to the Physical Therapist Assistant Program and completion of PTA 200 and PTA 220 with a grade of C or better. Completion of PTA 240 with a grade of P. Co-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. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Campus: MDC

QMS 101 (3)  
Course ID: 004464  
Introduction to Quality Systems  
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  

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  

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  

QMS 242 (3)  
Course ID: 004468  
Statistics for Quality II  
Builds upon the foundation of QMS 240 techniques of inferential statistics. Confidence interval estimation, hypothesis testing, regression analysis, ANOVA, and non-parametric tests are developed. Gauging Studies and SPC techniques for short production runs are included. Lecture: 3 credits (45 contact hours). Prerequisite: QMS 240.  

Components: Lecture  

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  

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 202 (3)  
Course ID: 000869  
Performance Management  
Students are introduced to a systematic, data-oriented approach to managing performance 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 quality. Lecture: 3 credits (45 contact hours).  

Components: Lecture  

QMS 210 (3)  
Course ID: 004283  
Lean Processes  
Introduces the concepts and skills of lean processing for manufacturing and service settings. Covers organizational readiness, SS, value stream mapping, kaizen, and visual workplace. Examines the implementation of processing. Prerequisite: QMS 101 or Consent of Instructor and MA 109 or MT 150. Lecture: 3 credits (45 contact hours).

Components: Lecture  

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 up. Teaches techniques to gain organizational acceptance for projects. Prerequisite: QMS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture  

QMS 215 (1)  
Course ID: 006730  
Functional Anatomy and Kinesiology Lab  
Develops selected data collection techniques in physical therapy, including: goniometry, manual muscle testing, flexibility, sensory integrity, reflex testing, and postural assessment. Lab experiences will reflect concepts taught in paired lecture course. Prerequisites: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: [Option 1: PTA 160 and PTA 170] OR [Option 2: PTA 120, PTA 121, PTA 150, and PTA 170]. Pre-requisite Or Co-requisite: PTA 100 with a C or better. Lab: 3 credits (90 contact hours).

Components: Laboratory  

QMS 221 (2)  
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, developing partnerships with customers, measuring customer satisfaction, self-evaluation, personal mission statements, time management, communication and listening techniques, coaching, mentoring, group problem solving, and decision making techniques. Lecture: 3 credits (45 contact hours). Prerequisite: QMS 101 or Consent of Instructor.  

Components: Lecture  

QMS 225 (3)  
Course ID: 000662  
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  

QMS 230 (3)  
Course ID: 006731  
Functional Anatomy and Kinesiology Lab  
Develops selected data collection techniques in physical therapy, including: goniometry, manual muscle testing, flexibility, sensory integrity, reflex testing, and postural assessment. Lab experiences will reflect concepts taught in paired lecture course. Prerequisites: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: [Option 1: PTA 160 and PTA 170] OR [Option 2: PTA 120, PTA 121, PTA 150, and PTA 170]. Pre-requisite Or Co-requisite: PTA 100 with a C or better. Lab: 3 credits (90 contact hours).

Components: Laboratory  

QMS 231 (3)  
Course ID: 006732  
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: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: [Option 1: PTA 160 and PTA 170] OR [Option 2: PTA 120, PTA 121, PTA 150, and PTA 170]. Pre-requisite Or Co-requisite: PTA 100 with a C or better. Lab: 3 credits (90 contact hours).

Components: Lecture  

QMS 232 (3)  
Course ID: 006722  
QMS Quality Management  
Course Descriptions
QMS 1013 (0.6) Course ID:005167

Systems for Quality Improvement
Integrated quality systems and operations that produce high levels of employee and intra-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 long-term 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 2025 (0.6) 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

QMS 2022 (0.6) Course ID:005171

Principles of ABC analysis with emphasis on reinforcers and techniques in delivering reinforcers. Prerequisite: QMS 2021 or consent of instructor.

RAE 150 (4) Course ID:004858

Elementary Chinese II
Continues the study of basic Chinese through grammar, reading, and oral practice. Stresses speaking and listening as the target skills, reading and writing remain centered on intense and repetitive practice with the pinyin character system. Emphasizes everyday language. Presents an overview of the cultures of China.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

RAE 120 (3) Course ID:005383

Introduction to Chinese Culture
Examines economic, political, cultural, and social realities that offer more opportunities and engagement at every level for non-native Chinese people. Includes some basic vocabulary. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

RAE 121 (1) Course ID:006199

Personal Effectiveness for Quality Customer Service
Provides for the development of cognitive processes and behavioral skills needed to improve personal and work group effectiveness. Includes self-evaluation, personal mission statements, time management, communication and listening techniques, coaching, mentoring, group problem solving, and decision making techniques. Prerequisite: QMS 101 or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

QMS 1011 (1) Course ID:005170

Understanding the Customer
Includes techniques for assessing internal and external customer needs and developing plans for delivery of quality customer service. Includes customer’s point of view, benchmarking quality customer service processes, and developing partnerships with customers. Prerequisite: QMS 2011 or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

QMS 2012 (1) Course ID:006200

Analyzing the Health of the Customer Service Relationship
Includes how to measure customer satisfaction, using decision making techniques. Prerequisite: QMS 2012 or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

QMS 2021 (0.6) Course ID:005170

Introduction to Performance Management
Emphasis on performance management and the ABC model of behavior change. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

QMS 2022 (0.6) Course ID:005171

ABC Analysis and Delivering Reinforcers
Principles of ABC analysis with emphasis on reinforcers and techniques in delivering reinforcers. Prerequisite: QMS 2021 or consent or instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

QMS 2023 (0.6) 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 (0.6) 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 2024 (0.6) 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

RAE 121 (1) Course ID:004832

Respiratory Care Practice I
Emphasizes the health care team and practice and performance of techniques of basic respiratory care including airway management and bronchial hygiene. Prerequisite or corequisite: RCP 122 with a grade of C or better. Corequisite: RCP 110. Lecture: 1 credit (15 contact hours).
Components: Laboratory, Lecture

RAE 122 (4) Course ID:004831

Respiratory Care Practice II
Includes customer's point of view, benchmarking quality customer service processes, and developing partnerships with customers.

RCP 110 (3) Course ID:003786

Cardiopulmonary Anatomy and Physiology
Provides an in-depth study of pharmacological agents, their use in the practice of respiratory care for patients with cardiovascular or pulmonary impairment as well as accuracy in drug calculations and delivery. Lecture: 3 credits (45 contact hours). Prerequisite: RCP 110 and RCP 120 with a grade of C or better; Consent of instructor. Lecture: 1.5 credits (22.50 contact hours). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory, Lecture

RCP 125 (4) Course ID:003788

Cardiopulmonary Evaluation
Examines cardiopulmonary assessment with in-depth coverage of invasive and non-invasive arterial blood gas interpretation, electrocardiography and assessment of chest and neck imaging. Prerequisite: (RCP 110 and RCP 120) with a grade of C or better). Corequisite: RCP 110. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture

RCP 130 (3) Course ID:003789

Cardiopulmonary Assessment
Emphasizes blood gas analysis, pulmonary function studies, electrocardiography and chest radiography. Prerequisite: (RCP 110 and RCP 120) with a grade of C or better) or consent of instructor. Lecture: 1.5 credits (22.50 contact hours). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory, Lecture

RCP 150 (2) Course ID:004835

Clinical Practice I
Provides for the development of cognitive processes and behavioral skills needed to improve personal and work group effectiveness. Includes self-evaluation, personal mission statements, time management, communication and listening techniques, coaching, mentoring, group problem solving, and decision making techniques. Prerequisite: QMS 101 or consent of instructor. Lecture: 1 credit (15 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; Consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Clinical

RCP 176 (2) Course ID:004834

Respiratory Care 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; Consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Clinical

RCP 180 (3) Course ID:003792

Ventilatory Support
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; Consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Clinical
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
RCP 190 (2) Course ID:003793
Advanced Ventilatory Support
Addresses advanced concepts in ventilatory support, including physiologic affects, 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
RCP 195 (4) Course ID:004688
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
RCP 200 (3) Course ID:003794
Clinical Practice III
Addresses practical application of ventilation procedures and airway management in the clinical 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
RCP 201 (2) Course ID:004836
Respiratory Care Practice III
Provides practice in adult mechanical ventilation procedures and airway management in the clinical 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
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]. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
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: 2.5 credits (37.5 contact hours).
Components: Laboratory, Lecture
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 or Consent of Instructor. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture
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
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
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
RCP 228 (2) Course ID:003800
Preventive and Long-Term Respiratory Care
Covers prevention of cardiopulmonary disorders and care of individuals with long-term cardiopulmonary disability. Addresses psychosocial and physical needs of clients with emphasis on improving the quality of life and cardiopulmonary reserve. Prerequisite: [(RCP 110 or (RCP 195 and RCP 210 and RCP 212 and RCP 226) with a grade of C or better] or consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
RCP 240 (3) Course ID:004844
Advanced Cardiopulmonary Evaluation
Addresses cardiopulmonary assessment including hemodynamic monitoring, pulmonary and cardiac exercise/stress testing, advanced cardiac procedures, blood chemistry and fluid and electrolyte balance. Prerequisite: [(RCP 195 and RCP 210 and RCP 212, and RCP 226) with a grade of C or better] or consent of Instructor. Lecture: 2.75 credits (41.25 contact hours). Laboratory: 0.25 credit (15 contact hours).
Components: Laboratory, Lecture
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
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
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 185 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
RCP 260 (1) Course ID:004846
Respiratory Care Seminar
Analyzes material previously studied in the program and prepares students for clinical rotations. Addresses professional roles and responsibilities. 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
RCT Realtime Captioning Technology
RCT 270 (3) Course ID:004497
Realtime Vocabulary
This course provides instruction in writing the spoken word with punctuation by means of a conflict-free reporting theory and principles as approved by NCRA to provide instantaneously. An in-depth study of vocabulary development and increased knowledge of terminology through dictation will be given. The student will receive instructions on using a computer-aided (realtime) theory system and teacher interaction. The student should also be able to take dictation at a minimum of 140 words per minute, transcribed with 95 percent accuracy by the end of the semester. Prerequisite: RCP 260, RCT 261 or Consent of Instructor. Must pass with at least a C grade in the prerequisite courses.
Components: Lecture
RCT 271 (2) Course ID:004480
Realtime Vocabulary Lab
This course will enable the student to practice realtime vocabulary writing and increase the user's machine shorthand speed and accuracy. This course must be taken in conjunction with RCT 270 Realtime Vocabulary. Laboratory: 2 credits (90 contact hours). Prerequisite: RCP 260 and RCT 261, or Consent of Instructor; student must receive at least a C grade in the prerequisite courses.
Components: Laboratory
RCT 272 (3) Course ID:004496
Judicial Technology
Provides the student with instruction in writing the spoken word with punctuation by means of a conflict-free reporting theory as approved by NCRA to provide instantaneously. Hands-on instruction in computer-aided transcription, includes) instruction in operating a computer-system, basic care and maintenance, system support, understanding of computer-aided transcription terminology, and application of computer functions such as producing a transcript, reading, translating, editing, printing, using parentheticals, dictionary management, computer operating systems, windows, formatting an ASCII disk, computer terminology, overview of related software packages, realtime application, operating a realtime translation system, setting up and operating realtime related hardware, speaker identification, realtime transcript, composition, and formatting. Students will learn the psychology and available resource materials for writing realtime. The student will receive live practice dictation, instruction in realtime reporting in the Computer-Integrated Courtroom (CIC) environment to include: realtime and litigation support technology, procedures to train attorneys, paralegals, court personnel, system management, case management, indexing/conversion software programs, optical scanning of documents, exhibits, building a litigation database, interacting with court computer systems, Lexis, Westlaw, case tracking, word processing, file storage, telecommunications, public relations and distribution of transcripts, ASCII diskette. The student will also receive instruction in realtime reporting in the classroom environment, realtime reporting for seminars/conference/conventions, realtime reporting in the broadcast and videocasting environment. A computer-aided realtime transcription workstation with appropriate software will be provided for each student. Prerequisite: RCT 160 and RCT 161 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
RCT 273 (3) Course ID:004495
Realtime Captioning Technology Lab
This course will enable the student to practice realtime transcription writing and increase the user's machine shorthand speed and accuracy. This course must be taken in conjunction with RCT 273 Realtime Captioning Technology. Laboratory: 2 credits (90 contact hours). Prerequisite: RCP 260 and RCT 261, or Consent of Instructor; student must receive at least a C grade in the prerequisite courses.
Components: Laboratory
Components: Laboratory
RDG 280 (3) Course ID:004534
Realtime Skill Development
Provides instruction in writing the spoken word with punctuation by means of a realtime translation theory as approved by NCRA to provide instantaneous translation. Continued theory instruction is provided and the use of tutorial and/or realtime technology and teacher interaction. Dictation practice for 2-voice, multi-voice testimony including literacy, jury change, current events and technical materials will assist in speed and accuracy development. Special emphasis is placed on dictionary building/management. Upon successful completion of this course, students will be able to take dictation at 120 words per minute, transcribed with 95 percent accuracy by the end of this term. Prerequisite: RCT 260 and RCT 261. Student must achieve at least a C grade in the prerequisite courses. Corequisite: RCT 281. Student must receive at least a C grade in the prerequisite courses. Lecture: 3 credits (45 contact hours).

Components: Lecture

RCT 281 (2) Course ID:004495
Realtime Skill Development Lab
Provides skill development in realtime dictionary building and management and increase the user’s machine shorthand speed and accuracy. This course must be taken in conjunction with RCT 280 Realtime Skill Development. Prerequisite: RCT 260 and RCT 261 or Consent of Instructor. Student must achieve at least a C grade in the prerequisite courses. Corequisite: RCT 280. Laboratory: 2 credits (90 contact hours).

Components: Laboratory

RDG Transitional Reading

RDG 020 (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: .75 credits (11.25 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

RDG 030 (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: Course Also Offered in Modules

RDG 041 (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. Prerequisite: Compass score 81-83. Lab: 1.0 credit (15 contact hours).

Components: Laboratory

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. Apply strategies to college level text. Prerequisite: KCTCS Placement Policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

RDG 201 (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

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
Campus: BSC

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 credits (15 contact hours).

Components: Lecture
Campus: BSC

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
Campus: BSC

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
Campus: BSC

RDG 0302 (0.75) Course ID:006742
Text Structures and Supports
Analyzes text structures, paragraphs, longer passages, and arguments for central ideas, supporting examples, reasoning, and evidence to construct meaning from texts. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 020. Lecture: .75 credits (11.25 contact hours).

Components: Lecture
Campus: BSC

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
Campus: BSC

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
Campus: BSC

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

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

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 1853. Lecture: .75 credits (11.25 contact hours).

Components: Lecture

REA Real Estate

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

REA 120 (3) Course ID:000365
Real Estate Marketing
Includes marketing and selling of real estate properties. Emphasizes qualifying prospects, preparing for property showings, negotiating the sale, developing a five-year goal plan, and managing time. Utilizes computer applications. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

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

REA 122 (3) Course ID:000575
Construction and Blueprints
Includes the basic concepts of construction, design, and blueprint reading. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

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
Course Descriptions

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

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
Involves 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

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. Examines 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. Pre-requisite: REA 121 or Appraiser's license. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

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 thereof must adhere and develop. Meets the pre-licensing and continuing education requirements of the Kentucky Real Estate Appraisers Board and the Appraisal Institute. Pre-requisite: 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 instruments, financial institutions, 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

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

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 101 (3) Course ID:000916
Introduction to Religious Studies
Introduces students to the study of religion, emphasizing 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: Cultural Studies, AH - Arts and Humanities, AH - Humanities, SB - Social Behavior Science, SB - Religion

REL 102 (3) Course ID:005523
Philosophy of Religion
Introduces students to the study of religion, emphasizing the varieties, differences, and similarities of religious experience and expression. Examines the interaction between religious experience and expression within its social and cultural contexts. Lecture: 3 credits (45 contact hours).
Components: Lecture

REL 103 (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
Course Equivalents: ANT 130
Attributes: Cultural Studies, AH - Arts and Humanities, AH - Humanities, SB - Social Behavior Science, SB - Religion, Course Also Offered in Modules

REL 135 (3) Course ID:007063
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 (3) 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

REL 230 (3) Course ID:0006945
Life and Teaching of Jesus
Examines 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

REL 241 (3) Course ID:006946
Life and Letters of Paul
Examines the life and letters 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

REL 249 (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

REL 1301 (1) Course ID:007323
Introduction to Religion
Introduces students to the relationship between religion, society, and the individual. Examines social 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. Examines 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. Examines 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
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, Lecture

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

SCI Natural Science

SCI 295 (3) Course ID:005237
Scientific Investigations
Real-time, hands-on research projects are carried out using the scientific method. Results of research projects may be presented at the Conference for Student Research, or other scientific meetings. Students prepare research projects for inclusion in a Handbook of Procedures Using the Scientific Method. Prerequisite: 1. Mathematics. Reading, and English assessment placement scores above developmental levels or completion of requisite developmental courses. 2. Completion of 3 credit hours of general education science area in which the research project will be carried out with grade of B or higher. 3. Consent of Instructor. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Lecture Attributes: SN - Science

SDC Student Development

SDC 110 (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

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

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

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 a personal career plan at the conclusion of the course. Lecture: 1 credit (15 contact hours).
Components: Lecture

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 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

SED Special Education/Sign Language

SED 101 (3) Course ID:000023
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 Technology

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

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

SET 111 (1) 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 engine. Corequisite: SET 110. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

SET 116 (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

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

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

SET 119 (1) Course ID:002008
Powerhead Overhaul Lab
This course presents hands-on instruction 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

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

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 units, and trim/tilt systems in marine applications. Corequisite: SET 120. Laboratory: 2 credits (90 contact hours).
Components: Laboratory

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

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 stem drive systems Corequisite: SET 122. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

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
SET 254 (1) Land Surveying and Mapping Technology
Course ID: 000733
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

SET 255 (2) Chassis Systems
Course ID: 002029
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, tire changers, and the safety practices associated with the use of this equipment. Laboratory: 2 credits (90 contact hours).
Components: Laboratory

SET 257 (1) Welding for Small Engines
Course ID: 002030
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

SFA 101 (3) OSHA, Health, & Environmental Safety
Course ID: 004735
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

SFA 100 (1) Safety and First Aid
Course ID: 002034
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

SFA 100 (1) Safety and First Aid
Course ID: 002034
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

SMT 110 (3) Principles of Surveying
Course ID: 000733
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

SMT 130 (3) Land Surveying Graphics
Course ID: 000673
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
SMT 160 (3) Course ID:002038
Construction Surveying
Provides a study of field and office procedures for the layout of construction sites. Includes theory of construction surveys for route locations, plant site, earthwork calculations, circular curves, lines, and grades. Pre-requisite: SMT 110, or Instructor Consent. Lecture: 3 credits (45 contact hours).
Components: Lecture

SMT 210 (3) Course ID:006734
Advanced Surveying Measurement
Examines the nature of measurements, statistical analysis of random errors in measurements, propagation of errors, survey standards and design specifications, development of coordinate geometry and trigonometric solutions of plane surveying problems, analysis of errors and mistakes in indirect measurement. Pre-requisite: SMT 110. Lecture: 3 credits (45 contact hours).
Components: Lecture

SMT 220 (3) Course ID:004438
Surveying Lab
Investigates field procedures for measuring distances, elevations, horizontal and vertical angles, state plane coordinates and control surveys as they pertain to boundary location, route location, construction and mine surveys. Corequisite: SMT 160. Laboratory: 3 credits (90 contact hours).
Components: Laboratory

SMT 230 (3) Course ID:006735
Land Boundary Location
Explores the role of the surveyor in retracing land boundaries, methods of boundary establishment, classification and analysis of boundary evidence, preparing deed descriptions and survey plots, preservation of survey evidence, surveyor as expert witness, liability, and professionalism in surveying. Pre-requisite: SMT 110. Lecture: 3 credits (45 contact hours).
Components: Lecture

SMT 250 (3) Course ID:006736
Mine Surveying
Introduces the theory and practice of mine surveying and use of survey instruments, for the location of drill holes, bench surveys, layout of blasting patterns, haul road layout, transfer of control from surface to underground, alignment of underground development, recording of survey information, control systems, location and selection of stations, bore hole surveys, and subsidence surveys. Pre-requisite: SMT 130 or Instructor Consent. Lecture: 3 credits (45 contact hours).
Components: Lecture

SMT 270 (3) Course ID:002041
Professional Ethics & Conduct for Land Surveyors
Explores the professional and ethical conduct of the Land Surveyor in areas of building a business, managing employees, communications, project management, and self-management. Pre-requisite: SMT 230, or Instructor Consent. Lecture: 3 credits (45 contact hours).
Components: Lecture

SMT 280 (4) Course ID:004436
Introduction to GIS and GPS
This course provides an overview of the principles and practices of Geographic Information Systems (GIS) and Global Positioning Systems (GPS). The GIS portion of the course will deal with issues of spatial data models, database design, introductory and intermediate GIS operations, and case studies of real world GIS applications. The GPS portion of the course focuses on GPS technology, software applications. Lecture: 3 credits (45 contact hours), Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture

SMT 290 (3) Course ID:004435
Boundary Law
This course is the survey of property law, explaining the creation, description, and maintenance of property boundaries, easements and right-of-ways. Lecture: 3 credits (45 contact hours).
Components: Lecture

SMT 292 (1 - 6) Course ID:004471
Special Topics
Various topics will be addressed. Laboratory: 1 - 6 credits (45 - 270 contact hours). Prerequisite: Permission of Instructor.
Components: Laboratory

SOC 101 (3) Course ID:000920
Introduction to Sociology
Introduces concepts and methods of sociology including investigation of socialization, group processes, social inequality, social institutions, and social change. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, SB - Sociology

SOC 152 (3) Course ID:000404
Modern Social Problems
Examines selected social problems of the day from a sociological perspective. Topics may include family, poverty, education, crime, race, housing, population, health care, industrial development, and power. Prerequisite: SOC 101 or SOC 151, or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, SB - Sociology

SOC 200 (3) Course ID:000890
The Community
Examines social organization and process in modern communities, both rural and urban; social techniques of community improvement. Prerequisite: Three hours of sociology or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, SB - Sociology

SOC 225 (3) Course ID:002258
Inequality in Society
Analyzes the nature, development, and persistence of inequality in various societies. Diverse dimensions of inequality are viewed as the basis for a number of specific social problems in Western and non-Western societies. Social origins of inequality are emphasized. Policy implications are addressed. Prerequisite: Three hours of sociology or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, SB - Sociology

SOC 235 (3) Course ID:002439
Media and Mass Culture
Examines the interplay between the technology and content of the mass communications media and culture. Prerequisite: COM 101 or SOC 101 or its equivalent. (Same as COM 249). Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: COM 249
Attributes: SB - Social Behavior Science, SB - Sociology

SPA 101 (4) Course ID:000922
Elementary Spanish I (spoken approach)
Introduces basic modes of communication in Spanish. Stresses speaking, listening, reading and writing as target skills. Emphasizes everyday language which the students will learn by applying essential grammatical structures to vocabulary. Provides instructional assignments and self-correction exercises that will be practiced in the classroom. Presents an overview of the culture of various Spanish-speaking countries.
Components: Lecture
Attributes: Foreign Language, Cultural Studies, Course Also Offered in Modules

SPA 102 (4) Course ID:000799
Elementary Spanish II (spoken approach)
Continues to highlight the basic modes of communication in Spanish, to include present and past tense. Stresses speaking, listening, reading and writing as target skills. Emphasizes everyday language which the students will learn by applying essential grammatical structures to vocabulary. Presents an overview of the culture of various Spanish-speaking countries. Prerequisite: SPA 101, or consent of the department and placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies, Course Also Offered in Modules

SPA 110 (3) Course ID:003884
Basic Conversational Spanish
Introduces pronunciation, practical structures, and basic vocabulary designed to enable students to communicate using simple Spanish in everyday situations in Spanish-speaking countries and areas of the United States. Cannot be used for major or minor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Campus: JFC

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, SB - Spanish

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)
Campus: HZC

STA 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. Prerequisite: SPA 202 or equivalent or consent from the department. Lecture: 3 credits (45 contact hours).

Components: Lecture
Campus: WKCTC

SPA 102 (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); explores the geography, culture, history and political issues of Spanish speaking countries with focus on Spanish in the United States. Lecture: 0.8 credit (12 contact hours).

Components: Lecture
Campus: WKCTC

SPA 101 (0.8) Course ID:006224 Spanish for Family and Friends Features description 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 Mexico. Prerequisite: SPA 1013. Lecture: 0.8 credit (12 contact hours).

Components: Lecture
Campus: WKCTC

SPA 104 (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 Ecuador. Prerequisite: SPA 1013. Lecture: 0.8 credit (12 contact hours).

Components: Lecture
Campus: WKCTC

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
Campus: WKCTC

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 pretender 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
Campus: WKCTC

SPA 1022 (0.8) Course ID:006228 Spanish for Daily Routines Presents descriptions of the daily routine; introduces reflexive verbs and the irregular preteter 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 on Peru. Prerequisite: SPA 1021. Lecture: 0.8 credit (12 contact hours).

Components: Lecture
Campus: WKCTC

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 present tense 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 Guatemala. Prerequisite: SPA 1022. Lecture: 0.8 credit (12 contact hours).

Components: Lecture
Campus: WKCTC

SPA 1024 (0.8) Course ID:006230 Spanish for Celebrations Highlights conversations of congratulations and gratitude and discussing different stages of life; presents irregular pretenders; discusses pronouns as prepositions; explores the geography, culture, history and political issue of Spanish speaking countries with focus on Chile. Prerequisite: SPA 1023. Lecture: 0.8 credits (12 contact hours).

Components: Lecture
Campus: WKCTC

SPA 1025 (0.8) Course ID:006231 Spanish for Health Care Presents dialog to talk about medical conditions; contrasts the imperfect and pretender 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
Campus: WKCTC

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 - Mathematics - AA & AS (CPE), University Course (University of Kentucky)
Campus: BLC

STA 215 (3) Course ID:005197 Statistics: A Force in Human Judgement 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 - Mathematics - AA & AS (CPE), QR - Quantitative Reasoning

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 mathematics). Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: University Course (Eastern Kentucky University)
Campus: BLC

STA 220 (3) Course ID:005197 Statistics Examines 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 - Mathematics - AA & AS (CPE), QR - Quantitative Reasoning, Course Also Offered in Modules

STA 281 (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. Theoretical distributions, statistical estimation, and hypothesis testing. Introduction to simple linear regression and correlation. Pre-requisites: MA 113, MA 123 or equivalent. Lecture: 3.0 Credits (45 Contact Hours).

Components: Lecture
Attributes: QR - Mathematics - AA & AS (CPE), University Course (University of Kentucky)
Campus: BLC

STA 220 (3) Course ID:007406 Descriptive Statistics Examines statistical description of sample data including frequency distributions, measures of central tendency, and measures of dispersion. Prerequisite: STA 101, STA 215, STA 220. Lecture: 1.0 credit (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
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STA 2203 (1)</td>
<td>Statistical Inference</td>
<td>Examines hypothesis testing and introduces simple linear regression and correlation. Pre-requisite: STA 2202. Lecture: 1.0 credit (15 contact hours). Components: Laboratory</td>
</tr>
<tr>
<td>SUR 100 (12)</td>
<td>Surgical Technology Fundamentals Theory</td>
<td>Provides an overview of the history of surgery and the role of the surgical technologists, including professional responsibilities, legal and ethical considerations, interpersonal relationships and communication skills. Incorporates safety, hazards preparation, aseptic technique and duties of the scrubbed and circulating surgical technologist during a surgical procedure. Provides information for the performance and completion of surgical procedures including general surgery, obstetric with attendant specialty equipment, abdominal incisions, 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 118); Current CPR certification for Healthcare Professionals. Corequisite: SUR 101 and SUR 125 and SUR 130. Lecture: 12 credits (180 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>SUR 101 (1)</td>
<td>Surgical Technology Fundamentals Lab</td>
<td>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 both the scrubbed and circulating technologist during a surgical procedure. Pre-requisite: Minimum “C” grade in (BIO 135 or BIO 137 and BIO 139) and (AHS 115 or CLA 131 or OST 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 118); Current CPR certification for Healthcare Professionals. Corequisite: SUR 130. Prerequisite or Corequisite: SUR 100 or (SUR 109 and SUR 110). If pre-requisite, the student must achieve a grade of &quot;C&quot; or greater. Laboratory: 1.0 credit (90 contact hours). Components: Laboratory</td>
</tr>
<tr>
<td>SUR 103 (1)</td>
<td>Surgical Technology Supplemental Lab</td>
<td>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. Pre-requisite: (BIO 130 or BIO 135 or BIO 137 and BIO 139) and (AHS 115 or CLA 131 or OST 103) and (BIO 130 or BIO 225 or BIO 226 or BIO 227 or BIO 118). Current CPR certification for Healthcare Professionals. All prerequisites must be achieved with a grade of C or greater. Corequisite: SUR 130. Pre-requisite Or Co-requisite: SUR 101. Lab: 1.0 credit (45 contact hours). Components: Laboratory</td>
</tr>
<tr>
<td>SUR 109 (3)</td>
<td>Introduction to Surgical Technology</td>
<td>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, sterilizing, surgical drape, 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</td>
</tr>
<tr>
<td>SUR 110 (9)</td>
<td>Surgical Technology Fundamentals</td>
<td>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 specially 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. Pre-requisite: Admission to Surgical Technology program, current CPR or BLS certification. SUR 109, AHS 115 or consent. Lecture: 9 credits (135 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>SUR 125 (2 - 3)</td>
<td>Surgical Technology Skills Practicum I</td>
<td>Provides opportunity for application of techniques learned in SUR 100 and SUR 109 and SUR 110. Pre-requisite Or Co-requisite: SUR 130. Clinical: 2.0 - 3.0 credits (120 - 180 contact hours). Components: Clinical</td>
</tr>
<tr>
<td>SUR 130 (2)</td>
<td>Principles of Surgical Pharmacology</td>
<td>Introduces the fundamental principles of the clinical use of drugs. Emphasizes the role and responsibility of the surgical technologist related to drugs, a review of basic mathematical skills, a thorough knowledge of the systems of measurement, and conversion and application of skills to perform dosage calculations. Presents information related to medicines in common use in the surgical setting. Pre-requisite: Minimum “C” grade in (BIO 135 or BIO 137 and BIO 139) and (AHS 115 or CLA 131 or OST 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 118); Current CPR certification for Healthcare Professionals. Corequisite: SUR 100 - SUR 101. Corequisite or Prerequisite: SUR 125. Lecture: 2.0 credits (30 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>SUR 200 (9)</td>
<td>Surgical Technology Advanced Theory</td>
<td>Focuses on the relevant anatomy, indications for surgery, patient preparation, special equipment and supplies, purpose, expected outcomes, and possible complications of specialty areas following OSHA standards. Pre-requisite: Minimum grade of “C” in [SUR 100 or (SUR 109 and SUR 110)] and SUR 125 and SUR 130. Co-requisite: SUR 201. Lecture: 9.0 credits (135 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>SUR 201 (6 - 7)</td>
<td>Surgical Technology Skills Practicum II</td>
<td>Provides opportunity for application of techniques learned in SUR 200 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. Pre-requisite: Minimum grade of “C” in [SUR 100 or (SUR 109 and 110)] and SUR 125 and SUR 130. Co-requisite: SUR 200. Clinical: 6.0 - 7.0 credits (360-420 contact hours). Components: Clinical</td>
</tr>
<tr>
<td>SUR 275 (2)</td>
<td>Surgical Technology Advanced Practicum</td>
<td>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. Pre-requisite: Minimum grade of “C” in [SUR 200 and SUR 201. Practicum: 2.0 credits (120 contact hours). Components: Practicum</td>
</tr>
<tr>
<td>SWK 180 (3)</td>
<td>Introduction to Gerontology</td>
<td>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</td>
</tr>
</tbody>
</table>
SWK 220 (3) Course ID:005587
Cultural Diversity in Human Services
Explores 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 minority cultural norms, attitudes and belief systems including the culture of poverty. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: HMS 220

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
Course Equivalents: HMS 211

SWK 260 (3) Course ID:005586
Crisis Intervention
Focuses on crisis intervention theory, suicide prevention, and risk assessment techniques. Covers risk assessment protocols, crisis triage, de-escalation and referral. Introduces clinical, ethical and legal aspects. Prerequisite: PSY 100 or PY 110 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: HMS 212

SWK 269 (3) Course ID:000304
Juvenile Delinquency
The history, nature, and extent of juvenile delinquency are studied including an examination of trends and methods of treatment in contemporary society. Lecture: 3 credits (45 contact hours).
Components: Lecture

SWK 275 (3) Course ID:000736
The Family
Covers the nature and structure of family systems and examination of major family issues. Includes discussion in patterns of family interaction with attention paid to resources designed to meet family needs. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, SB - Social Work

SWK 276 (3) Course ID:000748
Criminology
The history, nature, and extent of crime are studied, including trends and theories of crime, philosophies and forms of punishment, as well as methods of treatment. Lecture: 3 credits (45 contact hours).
Components: Lecture

SWK 281 (3) Course ID:000734
Psychology of Aging
A study of the aging process with emphasis on the needs, roles, and attitudes of seniors in our society. Lecture: 3 credits (45 contact hours).
Components: Lecture

TA Theatre Arts

TA 195 (1 - 3) Course ID:004554
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 6 credit hours. Lecture: 1-3 credits (15-45 contact hours); Laboratory: 1-3 credits (60-180 contact hours). Prerequisite: Consent of Instructor.
Components: Laboratory, Lecture

TA 250 (3) Course ID:000265
Fundamentals of Production
Includes a comprehensive study of the basic organizational structure, processes and techniques involved in theatre design, technology and management. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

TA 190 (1) Course ID:000031
Production Practicum
Provides study and practice of production techniques through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).
Components: Practicum

TA 191 (1) Course ID:008266
Performance Practicum
Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).
Components: Practicum

TA 196 (3) Course ID:004032
Summer Theatre Workshop
Includes study 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/college staff. Open to apprentice students in a Summer Theatre program. Prerequisite: Acceptance by audition or selection by director/college staff. Lab: 1.0 - 3.0 credit hours (45 - 125 contact hours).
Components: Laboratory

THA 220 (3) Course ID:003810
Introduction to Dramatic Literature
A survey of the development of dramatic literature from Greek Antiquity to the present. Components: Lecture
Attributes: AH - Arts and Humanities, AH - Humanities

THA 226 (3) Course ID:000791
Acting II: Scene Study (Realism)
Concentrates on 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: 3.0 credits (45 contact hours). Laboratory: 1.0 credit hour (15 contact hours).
Components: Laboratory, Lecture

THA 227 (3) Course ID:002267
Acting III: Scene Study (Stylistic)
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).
Components: Laboratory, Lecture

THA 250 (3) Course ID:006782
Stage Electrics
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).
Components: Laboratory, Lecture

THA 260 (3) Course ID:000717
Stagecraft
Provides a study of theory, principles and techniques of scenic design and construction. Includes assignments in practical applications. Prerequisite: THA 150 or Consent of Instructor. Lecture: 2.0 credit hours (30 contact hours). Lab: 1.0 credit hour (75 contact hours).
Components: Laboratory, Lecture
THA 283 (3)  Course ID:000111
American Theatre
Surveys American theatre history, giving particular emphasis to the late nineteenth and twentieth centuries, examining both theatre practice and dramaturgy and placing them within an historical, social, and cultural context. Lecture: 3 credits (45 contact hours).
Components:  Lecture
Attributes: AH - Arts and Humanities, AH - Humanities

TRU 100 (6)  Course ID:002092
Truck Driving
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

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 upholstering are discussed. The terms used in industry are stressed. Lecture: 3 credits (45 contact hours).
Components: Lecture

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

UPH 110 (3)  Course ID:002095
Upholstery Fabrics and Materials
This course introduces the student to various materials used in upholstering, the techniques for using each material, selection of upholstery fabrics and details concerning the usage of each fabric. Lecture: 3 credits (45 contact hours).
Components: Lecture

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

UPH 120 (1)  Course ID:002097
Furniture Preparation
This course introduces the student to the various techniques used in the stripping and repair of furniture frames and to the installation of webbing and springs. Lecture: 1 credit (15 contact hours).
Components: Lecture

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

UPH 125 (1)  Course ID:002099
Padding Installation
This course introduces the student to various aspects of padding furniture for upholstery purposes. Lecture: 1 credit (15 contact hours).
Components: Lecture

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

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 used in channeling and tucking processes are also taught in this course. Laboratory: 4 credits (180 contact hours).
Components: Laboratory

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

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

VCA 102 (3)  Course ID:002106
Fundamentals of Drawing
Introduces basic drawing skills and concepts as it relates to graphic design. Explores how to create form in space and 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

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

VCA 108 (3)  Course ID:002110
Digital Color Theory
Explores the visual dynamics of color as it relates to graphic design, including the basic characteristics of color; hue, value, and saturation. Explores color perception and psychology, color harmonies and schemes using color wheels, RGB, CMYK, Pantone and ICC Profiles, and color correction. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

VCA 120 (3)  Course ID:002116
Digital Photography
Introduces students to basic digital photography principles and skills to compose technically proficient photographs. Emphasizes basic digital camera operations for use in the design industry is the focus of this course. Includes proper scanning techniques and importing photographs, and a discussion on appropriate resolution and file formats. Students must receive a letter grade of “C” or better. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture

VCA 132 (3)  Course ID:000201
Illustration For Advertising
Develops skills in visualizing 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 (90 contact hours).
Components: Lecture

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 Or Co-requisite: VCC125. Lecture: 3.0 credits (90 contact hours).
Components: Lecture

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 experimental work on video. Lecture: 2 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

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

VCA 160 (3)  Course ID:000203
Commercial Photography
Teaches the use of 35mm 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

VCA 161 (3)  Course ID:000207
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

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

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

VCA 240 (3)  Course ID:002123
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 critical problem solving and legal requirements for the packaging industry. Students must receive a letter grade of “C” or better. Prerequisite Or Co-requisite: VCC125. Lecture: 3.0 credits (90 contact hours).
Components: Lecture

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 Or Co-requisite: VCC125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCA 251 (3)</td>
<td>Digital Filmmaking III</td>
<td>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. Pre-requisite 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).</td>
</tr>
<tr>
<td>VCA 252 (3)</td>
<td>Digital Filmmaking IV</td>
<td>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. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).</td>
</tr>
<tr>
<td>VCA 255 (3)</td>
<td>Corporate Design</td>
<td>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 &quot;C&quot; or better. Prerequisite Or Co-requisite: VCA 125. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (75 contact hours/37.5:1 ratio).</td>
</tr>
<tr>
<td>VCA 260 (4)</td>
<td>Commercial Photography III</td>
<td>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: 4.0 credits (90 contact hours).</td>
</tr>
<tr>
<td>VCA 261 (4)</td>
<td>Commercial Photography IV</td>
<td>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 &quot;C&quot; or better or consent of instructor. Lecture: 2 credits (30 contact hours), Laboratory: 2 credits (60 contact hours/30:1 ratio).</td>
</tr>
<tr>
<td>VCA 270 (4)</td>
<td>Advertising Design III</td>
<td>Emphasizes computer design and layout based on extensive use of the industry standard page layout and drawing programs; and critical thinking for problem solving, preparation, and production of electronic artwork. Prerequisite: VCA 171 with a grade of C or greater or Consent of Instructor. Lecture: 2 credits (30 contact hours), Laboratory: 2 credits (60 contact hours/30:1 ratio).</td>
</tr>
<tr>
<td>VCA 271 (4)</td>
<td>Advertising Design IV</td>
<td>Extends VCA 270 to include creation of a professional portfolio. Prerequisite: VCA 270 with a grade of C or greater or Consent of Instructor. Lecture: 2 credits (30 contact hours), Laboratory: 2 credits (75 contact hours/37.5:1 ratio).</td>
</tr>
<tr>
<td>VCA 280 (3)</td>
<td>Professional Portfolio Development</td>
<td>This course 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 A to successfully complete this course. Lecture: 1 credit (15 contact hours), Lab: 2 credits (75 contact hours/37.5:1 ratio). Prerequisite: Permission of Instructor.</td>
</tr>
<tr>
<td>VCA 290 (3)</td>
<td>Folio Seminar</td>
<td>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.</td>
</tr>
<tr>
<td>VCA 298 (2 - 6)</td>
<td>Practicum</td>
<td>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).</td>
</tr>
<tr>
<td>VCC 100 (3)</td>
<td>Introduction to Visual Communication</td>
<td>Introduces the concepts, vocabulary, and processes used in relation to visual communication. Includes various disciplines such as advertising and design, multimedia, and printing. Identifies career paths and specific job skills within the visual communication field. Students must receive a letter grade of &quot;C&quot; or better. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>VCC 105 (3)</td>
<td>Fundamentals of Typography</td>
<td>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. Introduces the elements and principles of design. Students must receive a letter grade of &quot;C&quot; or better. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>VCC 110 (3)</td>
<td>Graphic Design Concepts</td>
<td>Explores in detail the elements and principles of design to develop excellent skills in producing creative ideas and effective designs for various media forms. Provides an opportunity to apply concepts in the process of design. Emphasis on the importance of project planning is discussed. Students must receive a letter grade of &quot;C&quot; or better. Prerequisite Or Co-requisite: VCC 125 or VCC 150. Lecture/Lab: 3.0 credits (90 contact hours).</td>
</tr>
<tr>
<td>VCC 115 (3)</td>
<td>Strategic Concepts</td>
<td>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 &quot;C&quot; or better. Lecture: 3.0 credits (45 contact hours).</td>
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<tr>
<td>VCC 125 (3)</td>
<td>Introduction to Computer Graphics</td>
<td>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 letter grade of &quot;C&quot; or better. Lecture/Lab: 3.0 credits (90 contact hours).</td>
</tr>
<tr>
<td>VCC 130 (3)</td>
<td>Computer Fundamentals for Visual Communication</td>
<td>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.</td>
</tr>
<tr>
<td>VCC 200 (3)</td>
<td>Computer Illustration</td>
<td>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 &quot;C&quot; or better. Prerequisite: Digital Literacy. Lecture/Lab: 3.0 credits (90 contact hours).</td>
</tr>
<tr>
<td>VCC 205 (3)</td>
<td>Introduction to HTML</td>
<td>Introduces the creation of Web sites using hypertext markup language (HTML) and cascading style sheets (CSS). Students must receive a letter grade of &quot;C&quot; or better. Lecture: 3.0 credits (45 contact hours).</td>
</tr>
<tr>
<td>VCC 210 (3)</td>
<td>Advanced Computer Illustration</td>
<td>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 &quot;C&quot; or better. Lecture/Lab: 3.0 credits (90 contact hours).</td>
</tr>
<tr>
<td>VCC 212 (3)</td>
<td>Vinyl Graphics and Applications</td>
<td>Introduces concepts, vocabulary, and processes used in relation to the design and production of graphics for the sign industry. Provides an overview of 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 &quot;C&quot; or better. Lecture/Lab: 3.0 credits (90 contact hours).</td>
</tr>
<tr>
<td>VCC 214 (3)</td>
<td>Dye-Sublimation Process</td>
<td>Provides knowledge in the dye-sublimation process and special inks. Students gain skills to produce designs used on various promotional materials and the operation of heat transfer equipment, software packages and dye-sublimation printers. Students must receive a letter grade of &quot;C&quot; or better. Lecture/Lab: 3.0 credits (90 contact hours).</td>
</tr>
<tr>
<td>VCC 218 (3)</td>
<td>Pad Printing</td>
<td>Introduces students to the technology of pad printing. Includes the set-up and operation of pad printing equipment, including registration, creating molds, artwork preparation, plate preparation, and using inks and substrates to produce quality promotional products to specification. Students must complete with a letter grade of &quot;C&quot; or better. Lecture/Lab: 3.0 credits (90 contact hours).</td>
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<td>Course Code</td>
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<tr>
<td>VCC 218 (3)</td>
<td>Digital Printing</td>
<td>006861</td>
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<tr>
<td>VCC 229 (3)</td>
<td>Practicum</td>
<td>004463</td>
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<tr>
<td>VCC 230 (3)</td>
<td>Advanced Webpage Design</td>
<td>004345</td>
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<tr>
<td>VCC 240 (3)</td>
<td>Advanced Digital Video</td>
<td>004456</td>
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<tr>
<td>VCC 250 (3)</td>
<td>Press I</td>
<td>001506</td>
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<tr>
<td>VCC 255 (3)</td>
<td>Special Topics Lab</td>
<td>001508</td>
</tr>
<tr>
<td>VCP 274 (6)</td>
<td>Press II</td>
<td>004352</td>
</tr>
</tbody>
</table>

**Components:** Lecture/Lab: 3.0 credits (90 contact hours); Laboratory: 3 credits (90 contact hours)
Health Insurance Portability and Accountability Act (HIPAA) will complete an assigned case study and present it in a class. Students will study 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; BIO113. Lecture/Lab: 5.0 credits (135 contact hours).

Components: Lecture

NCT 112 (4) Course ID:007426
Veterinary Microbiology
Examines the characteristics of microorganisms and their relationships to animal health and disease. Introduces fundamental microbiological principles and laboratory techniques. Pre-requisite: BIO 112, BIO 113, and NCT 110. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture

NCT 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 dissected animal specimens, fresh and preserved, as well as skeletons and models, in the laboratory to reinforce course concepts. Pre-requisite: NCT 110. Co-requisite: NCT 112. Lecture: 5.0 credits (135 contact hours).

Components: Lecture

VMI Volumetric Medical Imaging

VMI 200 (4) Course ID:005199
Sectional Anatomy & Pathology I
The anatomy of the human body will be examined through cross-sectional images from cadavers and CT/MR images. Emphasis will be placed on identifying anatomical landmarks and describing relative anatomical location with appropriate medical terminology. Topics will include: head, neck, spine, thorax, abdomen, pelvis, and upper and lower extremities. Some pathology will be included. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours). Prerequisite: BIO 137 and BIO 139.

Components: Laboratory, Lecture

VMI 201 (4) Course ID:005200
Sectional Anatomy & Pathology II
Continuation of Sectional Anatomy and Pathology I with an emphasis on pathology. Topics include oncology, orthopedics, angiography, and endoscopy. Case studies utilized to demonstrate anatomical location and identification of normal/pathologic tissue. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours). Prerequisite: VMI 200.

Components: Laboratory, Lecture

VMI 210 (4) Course ID:005201
Volumetric Medical Imaging I
Software-based course designed to introduce radiological computer post-processing. Mastery of basic functions enable students to perform reconstruction, segmentation, annotation and analysis of images. Data management and communication will be emphasized throughout the course. Lecture: 1 credit (15 contact hours); Laboratory: 3 credits (90 contact hours). Prerequisite: VMI 200 or concurrent.

Components: Laboratory, Lecture

VMI 211 (4) Course ID:005202
Volumetric Medical Imaging II
Continuation of Volumetric Medical Imaging I focusing on case studies and standard protocols. Students will complete an assigned case study and present it in class. Competency in advanced topics will include axial manipulations, animations and monitoring pathology. Health Insurance Portability and Accountability Act (HIPAA) compliancy issues will be addressed. Lecture: 1 credit (15 contact hours); Laboratory: 3 credits (90 contact hours). Prerequisite: VMI 201 or concurrent, VMI 210.

Components: Laboratory, Lecture

WGS Women and Gender Studies

WGS 200 (3) Course ID:008015
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-typed 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, SB - Women/Gender Studies

WGS 201 (3) Course ID:008921
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, AH - Humanities

WLD Welding

WLD 100 (2) Course ID:004575
Oxy-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 processes and practices, and metalurgy. Shop safety and equipment use are also covered. Lecture: 2 credits (30 contact hours) Corequisite: WLD 101 or Consent of Instructor.

Components: Lecture

WLD 101 (2) Course ID:004576
Oxy-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

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, terms 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 processes. Lecture: 2 credits (30 contact hours) Corequisite: WLD 111 or Consent of Instructor.

Components: Lecture

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 recouperation 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

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 metalurgy. Lecture: 2 credits (30 contact hours). Corequisite: WLD 121 or Consent of Instructor.

Components: Laboratory

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

WLD 123 (3) Course ID:004599
Shielded Metal Arc Welding Groove with Backing Lab
Provides laboratory experiences in which the student acquires the manipulative skills to do groove welds in all positions with backing. Laboratory: 3 credits (90 contact hours/30:1 ratio). Prerequisite: WLD 120 and 121 or Consent of Instructor.

Components: Laboratory

WLD 130 (2) Course ID:004579
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 metalurgy. 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

WLD 131 (2) 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

WLD 133 (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

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 metalurgy are also included. Lecture: 2 credits (30 contact hours).

Components: Lecture

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

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
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

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

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

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

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 welding techniques 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

WLD 170 (2) Course ID:004587
Blueprint Reading for Welding
Provides a study of the industry 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 specifications 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

WLD 171 (3) Course ID:004588
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

WLD 198 (1 - 6) Course ID:004573
Special Topics in Welding
Various Welding Technology topics, issues and trends will be addressed. 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.
Lecture: Varies. Laboratory: Varies. Prerequisite: Consent of Instructor.
Components: Lecture

WLD 220 (2) Course ID:004589
Welding Certification
Provides the student with a working knowledge of certification encountered in welding. The student will start with developing a WPS, qualify the WPS, and qualify personnel. Prerequisites: WLD 221 or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture

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

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). Prerequisites: WLD 120 and 121 or Consent of Instructor.
Components: Laboratory

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. Fillet welds on pipe joints are also included in 2F, 2FR, 4F, and 5F positions. Lab: 3 credits (90 contact hours/30:1 ratio). Prerequisite: WLD 225 or Consent of Instructor.
Components: Laboratory

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 225 or Consent of Instructor.
Components: Laboratory

WLD 232 (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

WLD 233 (3) Course ID:004595
Gas Tungsten Arc Welding Pipe Lab B
Teaches the method of operation and application of the gas tungsten arc welding system 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

WLD 237 (3) Course ID:004596
Gas Tungsten Arc Welding Pipe Lab C
Teaches the method of operation and application of the gas tungsten arc welding system for welding of both ferrous and non-ferrous pipe in 7G position. Lab: 3 credits (90 contact hours/30:1 ratio). Prerequisite: WLD 133 or Consent of Instructor.
Components: Laboratory

WLD 239 (1) Course ID:005310
Orbital Tube Welding
Familiarizes students with the orbital weld system, basic setup, operation, and safety. Prerequisites: WLD 130 & WLD 131 or Permission of Instructor. Laboratory: 1 credit (30 contact hours).
Components: Laboratory

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 metalurgy 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

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 groove welds in pipe in 2G and 5G positions. Laboratory: 3 credits (90 contact hours/30:1 ratio). Corequisite: WLD 143 or Consent of Instructor.
Components: Laboratory

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

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

WLD 253 (1 - 6) Course ID:004607
Pipe Fitting and Template Development Lab
Provides experiences in piping plate 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

WLD 298 (1 - 6) Course ID:004443
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

WLD 299 (1 - 6) Course ID:004598
Cooperative Education Program
Provides supervised on-the-job work experience related to the student’s educational objectives. Prerequisite: Consent of Instructor.
Components: Co-Op

WMT Wood Manufacturing Technology
WMT 110 (2) Course ID:002176
Technical Drawing and Blueprint Reading
Fundamentals of multiview 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

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
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

WMT 198 (2 - 4)  Course ID:002179
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

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

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 insure 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

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 200 (3)  Course ID:002193
Workplace Principles
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. Job-seeking and job-retention skills are taught through the development of resumes and job search materials. Maximum benefit is received if this course is taken in the latter part of the student's course work. Lecture: 3 credits (45 contact hours).
Components: Lecture

ZOO 293 (3 - 6)  Course ID:005347
Applied Experiences in Zoo Technology
Provides experience working in a fully accredited zoological park and exposure to zookeeping with many facets of animal husbandry. Practicum: 3 - 6 credits (180-360 contact hours).
Components: Practicum
13 KAR 2.045.
RELATENTO: KRS Chapter 13B, 164.020, 164.030, 164A.330(6)
STATUTARY 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) Certificate, diploma, or other program award at an institution;
   (b) Baccalaureate degree or lower, including enrollment in a course by a nondegree-seeking postbacalaureate 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.
(17) "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 Kentucky 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 for each academic term.
(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.
(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 the student’s permanent address, parent’s mailing address, or location of high school of graduation.

(5) Marriage to an independent person domiciled in and who is a resident of Kentucky shall be a factor considered by an institution in determining whether a student is dependent or independent.

(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) 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 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)(a) 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) 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 accompanied by a person with an H-1 visa, L, K, L, N, R, shall establish domicile and residency the same as another person.

(3)(a) An independent 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, J, M, O, P, Q, S, TD, 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 6(1) of this administrative regulation.

(b) A dependent person holding a visa as described in paragraph (a) of this subsection, but who is a dependent of a parent holding a visa as described in subsection (2) of this section, shall be considered as holding 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 Kentucky 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)(a) of this section; or
(c) Is a dependent of a person who holds a visa listed in subsections (2) or (3)(a) of this section.

(5)(a) 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.
(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.

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).

Section 10 Criteria Used in a Determination of Residency Status
includes the following actions:

(1) A student shall report under the proper residency classification, which in
Section 12   Student Responsibilities
shall be subject to the provisions for continuous enrollment, if applicable.

(2) Upon transfer to a Kentucky institution, a student’s residency status shall be

(3) A reconsideration of a determination of residency status for a dependent per

(1) If a person becomes independent or if the residency status of a parent or par

2. Payment of Kentucky withholding taxes while employed during the calendar
year for which a change in classification is sought;

(2) If a request for a formal hearing is received, an institution shall appoint a

(3) Establish a formal hearing process as described in Section 14 of this adminis

(1) Provides for an administrative appeals process that includes a residency ap

(4)(a) The formal hearing conducted by an institution and the final recommended

(5) A student shall not be entitled to appeal a determination of residency status if

Section 13   Institutional Responsibilities Each institution shall:

(1) Provide for an administrative appeals process that includes a residency ap

(2) Establish a residency review committee to consider appeals of residency de

(3) Establish a formal hearing process as described in Section 14 of this adminis

(4)(a) Guarantees of due process to a student that include:

(b) Guarantees of due process to a student that include:

(5) A student shall not be entitled to appeal a determination of residency status if

Section 14 Formal Institutional Hearing

(1) A student who appeals a determination of residency by a residency review

(2) If a request for a formal hearing is received, an institution shall appoint a

(3) An institution shall have written procedures for the conduct of a formal hear

(4) An institution’s formal hearing procedures shall be filed with the Council on

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 legal representation in support of
the student’s claim of residency.

17 Ky.R. 2557; eff. 4-5-1991; Am. 22 Ky.R. 1616; 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; 2827; eff. 6-7-1999; 749; 1238; eff. 11-12-
2002; 36 Ky.R. 1083; 1951; 2033-M; eff. 4-2-2010.)
## Math Course Transitions

### Crosswalk – Mathematics

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<td>STA 220</td>
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## 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.

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<th>Prereq. Course</th>
<th>Replaces</th>
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<td>None</td>
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<td>MT 122 Intermediate Algebra: A Functional Approach</td>
<td>4</td>
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<td>MAH 080</td>
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<td>MT 125 Technical Algebra.&amp; Trigonometry</td>
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<td>MTH 170, MTH 175, MTH 101</td>
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<td>MT 139 AAS Mathematics Application: (Topic)</td>
<td>1-3</td>
<td>MT 120 or MT 122</td>
<td>MT 107</td>
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<tr>
<td>MT 145 Contemporary College Mathematics</td>
<td>3</td>
<td>MT 120 or MT 122 or MT 125</td>
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<tr>
<td>MT 150 College Algebra</td>
<td>3</td>
<td>MT 120 or MT 122 or MT 125</td>
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<td>MT 155 Trigonometry</td>
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<tr>
<td>MT 190 Mathematics Workshop</td>
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### 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>Course Type</th>
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<td>BIO 026</td>
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<td>General Education Biology Courses</td>
<td>BIO 112</td>
<td>BIO 103</td>
<td>Basic Ideas of Biology</td>
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<td>BIO 113</td>
<td>BIO 111</td>
<td>Introduction to Biology Lab</td>
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<tr>
<td></td>
<td>BIO 114</td>
<td>BSL 102</td>
<td>Biology I</td>
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<td>BIO 115</td>
<td>BSL 100</td>
<td>Biology Laboratory I</td>
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<td></td>
<td>BIO 116</td>
<td>BSL 103</td>
<td>Biology II</td>
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<td>BIO 117</td>
<td>BSL 101</td>
<td>Biology Laboratory II</td>
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<td>BIO 118</td>
<td>--------------</td>
<td>Microbes and Society</td>
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<tr>
<td></td>
<td>BIO 220</td>
<td>BIO 204</td>
<td>The Genetic Perspective</td>
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<tr>
<td>Dropped</td>
<td>BSL 214</td>
<td>Medical Microbiology</td>
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<tr>
<td>Dropped</td>
<td>BSL 244</td>
<td>Principles of Environmental Science</td>
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<td>PGY 206</td>
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<td>Ecology Courses</td>
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<td>BIO 121</td>
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<td>Introduction to Ecology Laboratory</td>
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<td>BIO 122</td>
<td>BSL 116</td>
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<td>BIO 124</td>
<td>BSL 120</td>
<td>Principles of Ecology</td>
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<td>Anatomy and Physiology Courses</td>
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<td>BSL 109</td>
<td>Aspects of Human Biology</td>
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<td>BIO 135</td>
<td>BSL 107</td>
<td>Basic Anatomy and Physiology w/ Lab</td>
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<td>BIO 137</td>
<td>BSL 110</td>
<td>Human Anatomy and Physiology I</td>
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<td>BIO 139</td>
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<td>BIO 106/BSL 140</td>
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<td>BIO 141</td>
<td>BIO 106/BSL 140 and BIO 107</td>
<td>Botany with Laboratory</td>
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<td>BIO 142</td>
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<td>BIO 143</td>
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<td>Biology Majors Courses</td>
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<td>Molecular and Microbiology Courses</td>
<td>BIO 220</td>
<td>BIO 204</td>
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<td>BIO 224</td>
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<td>Introduction to Molecular and Cell Biology</td>
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<td>BIO 208/209</td>
<td>Principles of Microbiology with Laboratory</td>
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<td>Selected/Special Topics</td>
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<td>BSL 295</td>
<td>Independent Investigation in Biology</td>
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<td>BSL 299</td>
<td>Selected Topics in Biology: Topic</td>
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# Crosswalk for Chemistry Courses

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<td>CHE 120</td>
<td>The Joy of Chemistry*</td>
<td>CHM 101</td>
<td>Chemistry: A Cultural Approach</td>
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<td>CHE 125</td>
<td>The Joy of Chemistry Laboratory*</td>
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<td>CHE 130</td>
<td>Introductory General and Biological Chemistry*</td>
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<td>CHE 140</td>
<td>Introductory General Chemistry*</td>
<td>CHE 104</td>
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<td>CHE 145</td>
<td>Introductory General Chemistry Laboratory*</td>
<td>CHM 104</td>
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<td>CHE 150</td>
<td>Introduction to Organic and Biological Chemistry*</td>
<td>CHE 106</td>
<td>Introduction to Inorganic, Organic, and Biochemistry</td>
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<td>CHE 155</td>
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<td>CHE 173</td>
<td>General College Chemistry I Workshop</td>
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<td>CHE 270</td>
<td>Organic Chemistry I*</td>
<td>CHE 230</td>
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<td>CHE 275</td>
<td>Organic Chemistry Laboratory I*</td>
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*General Education Status
## Crosswalks

### Crosswalk – Art

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<td>Introduction to Arts Administration</td>
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<td>ART 100</td>
<td>Introduction to Art</td>
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<td>ART 104</td>
<td>Introduction to African Art</td>
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<td>ART 105</td>
<td>Ancient through Medieval Art History</td>
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<td>ART 106</td>
<td>Renaissance Through Modern Art History</td>
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<td>ART 112</td>
<td>2-Dimensional Design</td>
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<td>ART 113</td>
<td>3-Dimensional Design</td>
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<td>ART 201</td>
<td>Ancient Art History</td>
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<td>ART 202</td>
<td>Medieval Art</td>
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<td>ART 203</td>
<td>Renaissance Art</td>
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<td>ART 204</td>
<td>Modern Art</td>
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<td>ART 208</td>
<td>Introduction to Art Education</td>
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<td>ART 211</td>
<td>Life Drawing</td>
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<td>ART 240</td>
<td>Ceramics</td>
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### Crosswalk – Foreign Language

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<td>FRE 201</td>
<td>Intermediate French I</td>
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<td>GER 101</td>
<td>Elementary German I</td>
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<td>Intermediate German II</td>
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<td>RAE 150</td>
<td>Elementary Chinese I</td>
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<td>Elementary Chinese II</td>
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<td>SED 101</td>
<td>Sign Language I</td>
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<tr>
<td>SED 102</td>
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<td>SED 203</td>
<td>Sign Language III</td>
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<td>SED 204</td>
<td>Sign Language IV</td>
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<td>SPA 201</td>
<td>Intermediate Spanish I</td>
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## Crosswalk – General College Studies

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<td>GEN 100 Introduction to College</td>
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<td>GEN 102 Foundations of Learning</td>
<td>GE 101 Strategies for Academic Success</td>
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<tr>
<td>AGR 101 The Economics of Food and Agriculture</td>
<td>GEN 101 The Economics of Food and Agriculture</td>
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<td>GEN 103 Principles of Peer Mentoring</td>
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<td>GEN 104 Applied Principles of Peer Mentoring</td>
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<td>GEN 120 Service Learning</td>
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<tr>
<td>GEN 122 The Exemplary Tutor</td>
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<td>GEN 123 The Exemplary Reading Tutor</td>
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<td>GEN 125 Applied Meta-Thinking</td>
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<tr>
<td>GEN 130 Introduction to Information Resources</td>
<td>GE 130 Introduction to Information Resources</td>
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<td>GEN 131 Basic Library Research and Resources</td>
<td>GE 131 Basic Library Research and Resources</td>
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<td>GEN 140 Development of Leadership</td>
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<td>GEN 150 Basic Computer Skills</td>
<td>GE 150 Computer Literacy</td>
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<td>GEN 175 Career and Life Skills Development</td>
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<tr>
<td>GEN 225 Lifelong Learning Applications</td>
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## Crosswalk – Music

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<td>MU 101 Folk and Traditional Music of the Western Continents</td>
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<td>Dropped</td>
<td>MUC 171 Brass Ensemble</td>
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<td>Dropped</td>
<td>MUC 174 University Chorale</td>
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<td>MUS 100 Introduction to Music</td>
<td>MUS 100 Introduction to Music</td>
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<tr>
<td>MUS 120 Music Technology I</td>
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<td>MUS 121 Music Technology II</td>
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<td>MUS 150 Class Instruction in Piano I</td>
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<td>MUS 151 Class Instruction in Piano II</td>
<td>MUC 151 Class Instruction in Piano II</td>
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<td>MUS 152 Class Instruction in Piano III</td>
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<td>MUS 153 Class Instruction in Piano IV</td>
<td>MUC 153 Class Instruction in Piano IV</td>
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<tr>
<td>MUS 155 Voice Class for Non-Music Majors</td>
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<tr>
<td>Dropped</td>
<td>MUS 170 Music Theory, Aural</td>
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<td>MUS 171 Music Theory, Written</td>
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<td>MUS 172 Music Theory, Aural</td>
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<td>Dropped</td>
<td>MUS 173 Music Theory, Written</td>
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<td>MUS 174 Theory for Non Music Majors</td>
<td>MUS 174 Theory for Non Music Majors</td>
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<tr>
<td>MUS 192 University Chorus</td>
<td>MUC 174 &amp; MUC 192 University Chorale and University Singers</td>
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<tr>
<td>MUS 206 American Music History</td>
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<td>MUS 220 Symphonic Music</td>
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<td>MUS 222 History and Sociology of Rock Music</td>
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<td>MUS 260 Teaching Music for the Elementary Grades I</td>
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368
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<td>PHI 100</td>
<td>Introduction to Philosophy: Knowledge and Reality</td>
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<td>Medical Ethics</td>
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<td>Business Ethics</td>
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<td>PHI 260</td>
<td>History of Philosophy I: From Greek Beginnings to the Middle Ages</td>
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<td>History of Philosophy II: From the Renaissance to the Present Era</td>
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<td>Introduction to European Politics: East and West</td>
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<td>Culture and Politics in Developing Nations</td>
<td>PS 212 Culture and Politics in the Third World</td>
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<tr>
<td>World Politics</td>
<td>PS 235 World Politics</td>
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<tr>
<td>State Government</td>
<td>PS 155 State Government</td>
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<tr>
<td>Issues in Public Policy</td>
<td>PS 280 Issues in Public Policy</td>
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<tr>
<td>Special Topics in Political Science</td>
<td>PS 299 Special Topics in Political Science</td>
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**NOTE:** POL 271 removed from general education status.

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<td>Introductory Physics I</td>
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<td>PHY 152</td>
<td>Introductory Physics II</td>
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<tr>
<td>PHY 160</td>
<td>Physics and Astronomy for Elementary Teachers</td>
</tr>
<tr>
<td>PHY 161</td>
<td>Introductory Physics I Laboratory</td>
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<td>PHY 162</td>
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<td>Applied Physics</td>
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<td>PHY 231</td>
<td>General University Physics I</td>
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### Crosswalk – Psychology

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<tr>
<td>Dropped</td>
<td>PSY 100 Introduction to Psychology</td>
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<tr>
<td>PSY 110 General Psychology</td>
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<tr>
<td>PSY 180 Human Relations</td>
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<td>PSY 185 Human Potential</td>
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<tr>
<td>PSY 230 Psychosocial Aspects of Death and Dying</td>
<td>PY 230 Psychosocial Aspects of Death and Dying</td>
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<td>PSY 297 Psychology of Aging</td>
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### Crosswalk – Religion

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<tr>
<td>REL 101 Introduction to Religion</td>
<td>RS 101 Introduction to Religion Studies</td>
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<tr>
<td>REL 102 Philosophy of Religion</td>
<td>RS 102 Philosophy of Religion</td>
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<tr>
<td>REL 120 Introduction to the Old Testament</td>
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<tr>
<td>REL 130* Introduction to Comparative Religion</td>
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*Cross-listed with ANT 130

### Crosswalk – Theatre

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<tr>
<td>THA 101 Introduction to Theatre: Principles and Practice</td>
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</tr>
<tr>
<td>THA 127 Acting Techniques</td>
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<tr>
<td>THA 150 Fundamentals of Production</td>
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<tr>
<td>THA 190 Production Practicum</td>
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<td>THA 191 Performance Practicum</td>
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<tr>
<td>THA 196 Summer Theatre Workshop</td>
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<tr>
<td>THA 200 Introduction to Dramatic Literature</td>
<td>TA 200 Introduction to Dramatic Literature</td>
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<tr>
<td>THA 203 Acting for the Camera</td>
<td>TA 203 Acting for the Camera</td>
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<tr>
<td>THA 226 Acting II: Scene Study (Realism)</td>
<td>TA 226 Acting II: Scene Study (Realism)</td>
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<td>THA 227 Acting III: Scene Study (Styles)</td>
<td>TA 227 Acting III: Scene Study (Styles)</td>
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<tr>
<td>THA 260 Stagecraft</td>
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<td>THA 283 American Theatre</td>
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### Crosswalk – Women’s and Gender Studies

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<tbody>
<tr>
<td>WGS 200 Introduction to Women’s and Gender Studies in the Social Sciences</td>
<td>WS 200 Introduction to Women’s Studies in the Social Sciences</td>
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<td>WGS 201 Introduction to Women’s and Gender Studies in the Arts and Humanities</td>
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## Crosswalks

### Crosswalk – Agricultural Technology

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<td>AGR 125 Introduction to Fertilizers and Soils</td>
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<td>AGR 130 Field Applications in Agriculture</td>
<td>AG 130 Field Applications in Agriculture</td>
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<tr>
<td>AGR 140 Issues in Agriculture</td>
<td>AG 140 Issues in Agriculture</td>
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<td>AGR 150 Agriculture Power</td>
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<tr>
<td>AGR 165 Agriculture Seminar</td>
<td>AG 160 Agriculture Seminar</td>
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<tr>
<td>AGR 170 Introduction to Equipment, Machines, and Engines</td>
<td>AG 170 Introduction to Equipment, Machines, and Engines</td>
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<tr>
<td>AGR 180 Agriculture Internship I</td>
<td>AG 180 Agriculture Internship I</td>
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<tr>
<td>AGR 190 Agriculture Internship II</td>
<td>AG 190 Agriculture Internship II</td>
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<td>AGR 200 Agriculture Internship III</td>
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<td>AGR 220 Computers in the Agriculture Environment</td>
<td>AG 220 Computers in the Agriculture Environment</td>
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<td>AGR 230 Career Development in Agriculture</td>
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<tr>
<td>AGR 240 Introduction to Animal Science</td>
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<tr>
<td>AGR 250 Introduction to Plants/Crop Production</td>
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### Crosswalk – Biotechnology

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<td>BTN 201 Biotechnology Techniques I</td>
<td>BT 201 Biotechnology Techniques I</td>
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<tr>
<td>BTN 202 Biotechnology Techniques II</td>
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<tr>
<td>BTN 210 Cell Culture and Function</td>
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<td>BTN 220 Immunological Methods</td>
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### Crosswalk – Business Administration

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<td>B&amp;E 100 Introduction to Business and Economics</td>
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<td>BAS 120 Personal Finance</td>
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<td>BA 151 Introduction to Electronic Commerce</td>
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<td>Dropped</td>
<td>BA 152 Introduction to Web Design</td>
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<tr>
<td>Dropped</td>
<td>BA 153 Intermediate Web Page Design</td>
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<td>BAS 155 Personal Selling</td>
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<tr>
<td>BAS 160 Introduction to Business</td>
<td>BA 160 Introduction to Business</td>
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<tr>
<td>BAS 170 Entrepreneurship</td>
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<tr>
<td>Dropped</td>
<td>BA 196 Introduction to Food Management Practicum</td>
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<tr>
<td>BAS 200 Small Business Management</td>
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<tr>
<td>BAS 212 Introduction to Financial Management</td>
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<td>BAS 250 Business Employability Seminar</td>
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<td>CAS 256</td>
<td>International Business</td>
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<tr>
<td>CAS 267</td>
<td>Introduction to Business Law</td>
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<td>CAS 274</td>
<td>Human Resources Management</td>
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<td>CAS 280</td>
<td>Business Internship</td>
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<tr>
<td>CAS 282</td>
<td>Principles of Marketing</td>
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<td>CAS 283</td>
<td>Principles of Management</td>
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<td>CAS 284</td>
<td>Applied Management Skills</td>
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<td>CAS 285</td>
<td>Problems in Marketing and Management</td>
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<td>CAS 287</td>
<td>Supervisory Management</td>
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<td>CAS 288</td>
<td>Personal and Organizational Leadership</td>
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<td>CAS 290</td>
<td>Management, Ethics, and Society</td>
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<td>CAS 289</td>
<td>Operations Management</td>
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<td>CAS 291</td>
<td>Retail Management</td>
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<td>CAS 293</td>
<td>Principles of Finance</td>
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<td>CAS 294</td>
<td>Money and Financial Institutions</td>
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<td>CAS 295</td>
<td>International Finance</td>
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<td>CAS 299</td>
<td>Selected Topics in Business Administration: (Topic)</td>
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<tr>
<td>HOS 100</td>
<td>Introduction to Hospitality Management</td>
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<td>HOS 160</td>
<td>Security for the Hospitality Industry</td>
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<td>HOS 200</td>
<td>Cultural Heritage Tourism</td>
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<td>HOS 210</td>
<td>Front Office Operations</td>
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<td>Tourism Marketing</td>
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**Crosswalk – Collision Repair Technology**

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<tr>
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<td>Introduction to Collision Repair</td>
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<tr>
<td>CRT 130</td>
<td>Non-Structural Analysis and Damage Repair</td>
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<tr>
<td>CRT 131</td>
<td>Non-Structural Analysis and Damage Repair Lab</td>
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<tr>
<td>CRT 150</td>
<td>Painting and Refinishing</td>
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<tr>
<td>CRT 151</td>
<td>Painting and Refinishing Lab</td>
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<td>CRT 198</td>
<td>Practicum</td>
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<td>CRT 199</td>
<td>Cooperative Education</td>
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<tr>
<td>CRT 230</td>
<td>Structural Analysis and Damage Repair</td>
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<tr>
<td>CRT 231</td>
<td>Structural Analysis and Damage Repair Lab</td>
</tr>
<tr>
<td>CRT 250</td>
<td>Mechanical and Electrical Components</td>
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<td>CRT 251</td>
<td>Mechanical and Electrical Components Lab</td>
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<tr>
<td>CRT 291</td>
<td>Special Projects I</td>
</tr>
<tr>
<td>CRT 293</td>
<td>Special Projects II</td>
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<td>CRT 295</td>
<td>Special Projects III</td>
</tr>
<tr>
<td>CRT 298</td>
<td>Advanced Practicum</td>
</tr>
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<td>CRT 299</td>
<td>Advanced Cooperative Education</td>
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### Crosswalk – Computer Aided Drafting

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<td>CAD 102 Drafting Fundamentals</td>
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<tr>
<td>CAD 108 Introduction to Surveying</td>
<td>DFT 108 Introduction to Surveying</td>
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<td>CAD 112 Engineering Graphics</td>
<td>DFT 112 Engineering Graphics</td>
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<tr>
<td>CAD 120 Introduction to Architecture</td>
<td>ADFT 130 Introduction to Architecture</td>
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<tr>
<td>CAD 130 Descriptive Geometry</td>
<td>DFT 130 Descriptive Geometry</td>
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<tr>
<td>CAD 201 Parametric Modeling</td>
<td>CAD 201 Advanced 3-D Modeling</td>
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<td>CAD 212 Industrial Drafting Processes</td>
<td>DFT 212 Industrial Drafting Processes</td>
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<tr>
<td>CAD 220 Architectural Design</td>
<td>ADFT 240 Architectural Design</td>
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<tr>
<td>CAD 222 Mechanical Design</td>
<td>DFT 222 Mechanical Design</td>
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<tr>
<td>CAD 230 Construction Techniques</td>
<td>ADFT 230 Construction Techniques</td>
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<td>CAD 240 Advanced Dimensioning and Measurement</td>
<td>DFT 240 Advanced Dimensioning and Measurement</td>
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<tr>
<td>CAD 252 Commercial Detailing</td>
<td>ADFT 252 Commercial Detailing</td>
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<tr>
<td>CAD 262 Working Drawings</td>
<td>ADFT 262 Working Drawings</td>
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<tr>
<td>CAD 291 Special Problems</td>
<td>DFT 291 Special Problems</td>
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<tr>
<td>CAD 292 Industrial Applications</td>
<td>DFT 292 Industrial Applications</td>
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<td>CAD 293 Special Problems</td>
<td>DFT 293 Special Problems</td>
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<tr>
<td>CAD 298 Practicum</td>
<td>DFT 298 Practicum</td>
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<td>CAD 299 Cooperative Education</td>
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### Crosswalk – Cosmetology

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<tr>
<td>COS 105 Esthetician I</td>
<td>COSE 110 Esthetician I</td>
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<tr>
<td>COS 122 Cosmetology I</td>
<td>COS 122 Cosmetology I</td>
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<tr>
<td>COS 124 Cosmetology II</td>
<td>COS 124 Cosmetology II</td>
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<tr>
<td>COS 126 Cosmetology III</td>
<td>COS 126 Cosmetology III</td>
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<tr>
<td>COS 135 Individual Requirements I</td>
<td>COS 135 Special Problems I</td>
</tr>
<tr>
<td>COS 205 Esthetician II</td>
<td>COSE 210 Esthetician II</td>
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<tr>
<td>COS 228 Cosmetology IV</td>
<td>COS 228 Cosmetology IV</td>
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<td>COS 230 Advanced Cosmetology I</td>
<td>COS 230 Advanced Cosmetology I</td>
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<tr>
<td>COS 232 Advanced Cosmetology II</td>
<td>COS 232 Advanced Cosmetology II</td>
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<tr>
<td>COS 235 Individual Requirements II</td>
<td>COS 235 Special Problems II</td>
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<tr>
<td>COS 275 Esthetician III</td>
<td>COSE 270 Esthetician III</td>
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### Crosswalk – Criminal Justice

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<td>CRJ 100 Introduction to Criminal Justice</td>
<td>CJ 101 Introduction to Criminal Justice</td>
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<tr>
<td>CRJ 102 Introduction to Corrections</td>
<td>CJ 102 Introduction to Corrections</td>
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<tr>
<td>CRJ 218 Police Supervision</td>
<td>CJ 105 Police Supervision</td>
</tr>
<tr>
<td>CRJ 107 Introduction to Firearms</td>
<td>CJ 107 Introduction to Firearms</td>
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<tr>
<td>CRJ 110 Principles of Asset Protection</td>
<td>CJ 110 Principles of Asset Protection</td>
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<tr>
<td>CRJ 201 Introduction to Criminalistics</td>
<td>CJ 201 Introduction to Criminalistics</td>
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<tr>
<td>CRJ 202</td>
<td>Issues and Ethics in Criminal Justice</td>
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<tr>
<td>CRJ 203</td>
<td>Community Corrections: Probation and Parole</td>
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<tr>
<td>CRJ 204</td>
<td>Criminal Investigations</td>
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<tr>
<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
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<tr>
<td>CRJ 210</td>
<td>Physical Security Technology &amp; Systems</td>
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<tr>
<td>CRJ 211</td>
<td>Liability and Legal Issues</td>
</tr>
<tr>
<td>CRJ 215</td>
<td>Introduction to Law Enforcement</td>
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<tr>
<td>CRJ 216</td>
<td>Criminal Law</td>
</tr>
<tr>
<td>CRJ 217</td>
<td>Criminal Procedures</td>
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<tr>
<td>CRJ 220</td>
<td>Introduction to Computer Forensics for Criminal Justice</td>
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<tr>
<td>CRJ 222</td>
<td>Prison &amp; Jail Administration</td>
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<td>CRJ 230</td>
<td>Criminal Justice Courtroom Procedures</td>
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<tr>
<td>CRJ 231</td>
<td>Legal Aspects of Corrections</td>
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<tr>
<td>CRJ 240</td>
<td>Introduction to Corporate &amp; Industrial Security</td>
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<td>CRJ 245</td>
<td>Introduction to Business and Industrial Fraud</td>
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<tr>
<td>CRJ 279</td>
<td>Terrorism and Political Violence</td>
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<td>CRJ 290</td>
<td>Internship in Criminal Justice</td>
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<td>CRJ 299</td>
<td>Selected Topics in Law Enforcement</td>
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### Crosswalk – Dental Assisting/Dental Hygiene

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<td>Materials in Dentistry</td>
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<td>DAH 111</td>
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### Crosswalk – Dental Hygiene (BCTC)

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<td>DHP 121</td>
<td>Oral Biology I</td>
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<td>DHP 130</td>
<td>Dental Hygiene II</td>
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<tr>
<td>DHP 131</td>
<td>Oral Biology II</td>
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<td>DHP 135</td>
<td>Dental Radiology</td>
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<td>DHP 136</td>
<td>Periodontics I</td>
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<tr>
<td>DHP 220</td>
<td>Dental Hygiene III</td>
</tr>
<tr>
<td>DHP 222</td>
<td>Special Needs Patients</td>
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<td>DHP 224</td>
<td>Dental Materials</td>
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<td>DHP 226</td>
<td>Periodontics II</td>
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<td>DHP 229</td>
<td>Local Anesthesia</td>
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<td>DHP 230</td>
<td>Dental Hygiene IV</td>
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<td>DHP 235</td>
<td>Principles of Practice</td>
</tr>
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<td>DHP 238</td>
<td>Community Dental Health</td>
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<td>DHP 299</td>
<td>Independent Study Dental Hygiene</td>
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<td>DH 120</td>
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<td>Dental Radiology</td>
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<td>Dental Hygiene III</td>
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<td>Dental Materials</td>
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<td>Periodontics for the Dental Hygienist II</td>
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<td>Principles of Practice</td>
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## Crosswalk – Diagnostic Medical Sonography

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<td>DMS 109  Sonography I</td>
<td>SONO 110  Sonography I</td>
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<td>DMS 111  Abdominal Synography</td>
<td>SONO 111  Abdominal Synography</td>
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<td>DMS 115  Sonography II</td>
<td>SONO 115  Sonography II</td>
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<tr>
<td>DMS 116  OB/GYN Sonography</td>
<td>SONO 116  OB/GYN Sonography</td>
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<td>DMS 117  Vascular Sonography I</td>
<td>SONO 117  Vascular Sonography I</td>
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<tr>
<td>DMS 118  Vascular Sonography II</td>
<td>SONO 118  Vascular Sonography II</td>
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<tr>
<td>DMS 119  Ultrasonic Physics and Instrumentation</td>
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<td>DMS 121  Sonography Physics and Instrumentation</td>
<td>SONO 121  Sonography Physics and Instrumentation</td>
</tr>
<tr>
<td>DMS 126  Clinical Education I</td>
<td>SONO 125  Clinical Education I</td>
</tr>
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<td>DMS 136  Vascular Clinical Education I</td>
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<td>SONO 203  Online High Resolution Sonography</td>
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<td>DMS 217  Basic Cardiac Ultrasound Sonography</td>
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## Crosswalk – Education

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### Crosswalk – Energy Systems

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<td>ESP 130 Electrical Concepts</td>
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<td>ESP 132 Electrical Machinery and Controls</td>
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<td>ESP 211 Power Plant Operations I</td>
<td>ES 211 Power Plant Operations I: Introduction to Power Plant Operations</td>
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<tr>
<td>ESP 212 Power Plant Operations II</td>
<td>ES 212 Power Plant Operations II: Boilers/Fuel/Air Combustion/Emissions</td>
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<td>ESP 214 Power Plant Operations IV</td>
<td>ES 214 Power Plant Operations IV: Auxiliaries</td>
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<td>ESP 220 Power Plant Thermodynamics</td>
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### Crosswalk – Engineering & Electronics Technology (Previously MIT: Engineering Technology)

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<td>ELT 105 Computer Maintenance Essentials</td>
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<td>ELT 106 Mechanical Engineering Graphics</td>
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<td>ELT 107 Computer Applications for Technicians</td>
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<td>ELT 110 Circuits I</td>
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<td>ELT 114 Circuits II</td>
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<td>ELT 118 Computer Numerical Control</td>
<td>ET 118 Manufacturing III, Computer Numerical Control</td>
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<td>ELT 120 Digital I</td>
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<td>ELT 201 Statics and Strength of Materials</td>
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<td>ELT 205 Advanced Computer Maintenance</td>
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<td>ELT 210 Devices I</td>
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<td>ELT 222 Mechanics of Telephony</td>
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<td>ELT 226 Safety in the Workplace</td>
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<td>ELT 232 Computer Software Maintenance</td>
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**Crosswalk – Global Studies**

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**Crosswalk – Health Physics**

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<td>HPH 101  Introduction to Health Physics I</td>
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<td>HPH 102  Introduction to Health Physics II</td>
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<td>HPH 120  Introduction to Radiation Biology</td>
<td>HP 120  Introduction to Radiation Biology</td>
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<td>HPH 201  Nuclear Instrumentation and Measurement I</td>
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<td>HPH 246  Environmental Law</td>
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**Crosswalk – Homeland Security/Emergency Management**

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**Crosswalk – Human Services**

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<td>HMS 102  Values of Human Services in a Contemporary Society</td>
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<td>HMS 103  Theories and Techniques in Human Services</td>
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<td>HMS 200  Dynamics of Human Behavior</td>
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<td>HMS 210  Drugs, Society &amp; Human Behavior</td>
<td>HS 210  Drugs, Society &amp; Human Behavior</td>
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<td>HMS 211  Introductions to Addictions</td>
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<td>HMS 212  Crisis Intervention</td>
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<td>HMS 220  Cultural Diversity in Human Services</td>
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<td>HMS 235  Teaching Persons with Mental Retardation</td>
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<td>HMS 250  Clinical Practice in Human Services</td>
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<td>HMS 265  Working with Disabilities in Human Services</td>
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<td>HMS 299  Special Topics in Human Services: (Topic)</td>
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<td>SWK 124  Introduction to Social Services</td>
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### Crosswalk – Masonry

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<td>MSY 198 Practicum I</td>
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<td>MSY 205 Advanced Masonry</td>
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<td>MSY 215 Masonry Lab</td>
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<td>MSY 225 Brick Construction</td>
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<td>MSY 245 Anchors and Reinforcement</td>
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<td>MSY 251 Concrete Finishing</td>
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<td>MSY 253 Masonry Floors and Steps</td>
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<td>MSY 255 Glass Blocks and Tile</td>
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### Crosswalk – Mining Technology

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<td>MNG 123 Mining Electricity I</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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<td>ET 155 Elements of Underground and Surface Mining</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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## Crosswalk – Nuclear Medicine & Molecular Imaging

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## Crosswalk – Nursing (BCTC)

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## Crosswalk – Professional Studio Artist

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<td>Bluegrass &amp; Traditional Music History IV: The Masters &amp; Their Music</td>
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<td>Wood Turning for Furniture</td>
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<td>Furniture/Wood Product Development</td>
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**Crosswalk – Radiography**

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<tr>
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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 114 Image Production and Acquisition</td>
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<td>IMG 116 Advanced Patient Care in Radiography</td>
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<td>IMG 209 Clinical Practice III</td>
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<td>IMG 210 Radiography IV</td>
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<td>IMG 214 Imaging Equipment</td>
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<td>IMG 216 Basic Computed Tomography</td>
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<td>IMG 219 Clinical Practice IV</td>
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<td>Radiographic Pathology</td>
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<td>IMG 228</td>
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<td>IMG 229</td>
<td>Clinical Practice V</td>
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<td>IMG 230</td>
<td>Sectional Anatomy for Advanced Medical Imaging</td>
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<td>IMG 240</td>
<td>Pathology for Advanced Medical Imaging Modalities</td>
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<td>IMG 250</td>
<td>Computed Tomography Physics and Instrumentation</td>
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<td>IMG 255</td>
<td>Magnetic Resonance Physics and Instrumentation</td>
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### Crosswalk – Real Estate

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## Crosswalk – Computer and Information Technologies

(Previously listed under Computer Information Technology/Information Technology/Computer Information Systems Technology)

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<thead>
<tr>
<th>New Courses</th>
<th>Courses that are equivalent to New Courses</th>
<th>Courses requiring program coordinator approval for substitution.</th>
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<td>CIT 103 Computer Fundamentals</td>
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<td>CIT 105 Introduction to Computers</td>
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<td>CIT 111 Computer Hardware and Software</td>
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<td>CIT 130 Productivity Software</td>
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<td>CIT 140 JavaScript I</td>
<td>NIS 152/CIT 140</td>
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<td>CIT 141 PHP I</td>
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<td>CIT 142 C++ I</td>
<td>CIS 155</td>
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<td>CIT 145 PERL I</td>
<td>NIS 150</td>
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<tr>
<td>CIT 147 Programming I; Language</td>
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<tr>
<td>CIT 148 Visual Basic I</td>
<td>CIS 148/CIT 148</td>
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<td>CIT 149 Java I</td>
<td>CIS 149/CIT 149</td>
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<td>CIT 155 Web Page Development</td>
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<td>CIT 157 Web Site Design and Production</td>
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<td>CIT 160 Introduction to Networking Concepts</td>
<td>NIS 160/CIS 210</td>
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<td>IT 120/CIT 160</td>
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<td>CIT 162 Home and Small Office Networks</td>
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<td>CIT 163 Small-Medium Business or ISP</td>
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<td>CIT 164 Introduction to Routing and Switching</td>
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<td>CIT 165 Network Design and Support</td>
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<td>CIT 170 Database Design Fundamentals</td>
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<td>CIT 171 SQL I</td>
<td>IT 147/CIS 147/CIT 171</td>
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<td>CIT 180 Security Fundamentals</td>
<td>IT 250/CIT 180</td>
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<td>CIT 182 Perimeter Defense</td>
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<td>CIT 184 Attacks and Exploits</td>
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<tr>
<td>CIT 210 Routing Protocols and Concepts</td>
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<td>New - Comparable to CIT 281</td>
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<td>CIT 211 LAN Switching and Wireless</td>
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<td>CIT 212 Accessing the WAN</td>
<td>IT 222/CIT 283</td>
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<td>CIT 213 MS Client/Server Config</td>
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<td>New- Comparable to NIS 211 and NIS 213</td>
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<td>CIT 217</td>
<td>UNIX/Linux Administration</td>
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<td>UNIX/Linux Net Infrastructure</td>
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<td>CIT 223</td>
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<td>Selected Topics in GIS</td>
<td>New - Comparable to IT 268</td>
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<td>CIT 232</td>
<td>Help Desk Operations</td>
<td>IT 237</td>
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<td>CIT 234</td>
<td>Advanced Productivity Software</td>
<td>CIS 230</td>
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<td>CIT 236</td>
<td>Advanced Data Organization Software</td>
<td>CIS 230/CIT 234 &amp; 236</td>
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<td>CIT 241</td>
<td>PHP II</td>
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<td>CIT 242</td>
<td>C++ II</td>
<td>CIS 252</td>
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<tr>
<td>CIT 246</td>
<td>2-D Game Development: Language</td>
<td>New – Comparable to CIS 250 or CIS 255</td>
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<td>CIT 247</td>
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<td>Java II</td>
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<td>CIT 253</td>
<td>Data-Driven Web Pages: Topic</td>
<td>IT 235/CIT 253</td>
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<td>CIT 255</td>
<td>Web Server Administration</td>
<td>NIS 275/CIT 255</td>
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<td>CIT 257</td>
<td>Applied Internet Technologies</td>
<td>New – Comparable to IT 291 or IT 295</td>
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<td>CIT 258</td>
<td>Internet Technologies Seminar</td>
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<tr>
<td>CIT 260</td>
<td>Network Installation and Troubleshooting</td>
<td>CIT 260/NIS 270</td>
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<td>CIT 261</td>
<td>MS Active Directory Services</td>
<td>CIT 261/NIS 216</td>
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<td>MS Network Infrastructure</td>
<td>CIT 262</td>
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<td>Microsoft Server Administration</td>
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<td>CIT 265</td>
<td>MA Application Servers</td>
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<td>CIT 266</td>
<td>MS Enterprise Administration</td>
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<tr>
<td>CIT 271</td>
<td>SQL II</td>
<td>CIT 271</td>
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<tr>
<td>CIT 276</td>
<td>3-D Game Development: Language</td>
<td>New – Comparable to CIS 260 or CIS 265</td>
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<td>CIT 277</td>
<td>Programming III: Language</td>
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<td>CIT 278</td>
<td>Visual Basic III</td>
<td>New – Comparable to CIS 258</td>
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<tr>
<td>CIT 284</td>
<td>Computer Forensics</td>
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<td>CIT 285</td>
<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 288</td>
<td>Network Security</td>
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<td>CIT 290</td>
<td>Internship</td>
<td>CIT 290/CIS 280</td>
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<td>CIT Capstone</td>
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<td>CIT 295</td>
<td>Independent Problems in CIT: Topic</td>
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### Crosswalk – Computerized Manufacturing and Machining

(Previously listed under Machine Tool Technology)

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<td>CMM 118 Metrology/Control Charts</td>
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<tr>
<td>CMM 120 Applied Machining I</td>
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<tr>
<td>CMM 122 Applied Machining II</td>
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<td>CMM 124 Applied Machining</td>
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<tr>
<td>CMM 132 CAD/CAM/CNC</td>
<td>MTT 132 CAD/CAM/CNC</td>
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<td>CMM 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>
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<td>CMM 154 Die Theory</td>
<td>MTT 154 Die Theory</td>
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<tr>
<td>CMM 155 Jigs, Fixtures and Gaging Lab</td>
<td>MTT 155 Jigs, Fixtures and Gaging Lab</td>
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<tr>
<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>
<td>MTT 168 Special Topics in Machine Tool Technology</td>
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<td>MTT 169 Special Topics in Machine Tool Technology</td>
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<td>CMM 218 Advanced Machining Techniques for Manufacturing</td>
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<td>CMM 220 Advanced Industrial Machining I</td>
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<td>CMM 222 Advanced Industrial Machining II</td>
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<td>CMM 224 Advanced Industrial Machining</td>
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<td>CMM 230 Conversational Programming</td>
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<td>CMM 234 CNC Machines &amp; Coding Practices</td>
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<td>CMM 240 Introduction to 3-D Programming</td>
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<td>CMM 244 Advance Programming/Setup Practices</td>
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<td>CMM 299 Cooperative Education Program</td>
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### Crosswalk – Digital Game and Simulation Design

(Previously listed under Digital Game Design)

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<td>IT 131 Introduction to Digital 3-D Game Graphics</td>
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<tr>
<td>DGD 232 3D Character Development</td>
<td>IT 232 3-D Digital Game Character Development</td>
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<tr>
<td>DGD 234 3D Animation</td>
<td>IT 231 3-D Digital Game Animation</td>
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## Crosswalk – Engineering and Electronics Technology

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<tr>
<td>Introduction to Engineering</td>
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## Crosswalk – Industrial Safety

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<tr>
<td>Introduction to Industrial Safety</td>
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## Crosswalk – Industrial Technology

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<td>Statistical Process Control</td>
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<td>ITE 250</td>
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<td>Team Dynamics and Problem Solving</td>
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## Crosswalk – Math

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<td>MAT 190</td>
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## Crosswalk – Medical Information Technology

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<td>Medical Office Terminology</td>
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<td>MIT 104</td>
<td>OST 104</td>
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<td>Medical Insurance</td>
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<td>MIT 106</td>
<td>OST 106</td>
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<td>Introduction to Medical Transcription</td>
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<td>Medical Coding</td>
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<td>OST 208</td>
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Compliance with Regulations

The Kentucky Community and Technical College System is an equal educational and employment opportunity institution and does not discriminate on the basis of; race, religion, color, sex, national origin, age, disability, family medical history, or genetic information. Further, we vigilantly prevent discrimination based on sexual orientation, parental status, marital status, political affiliation, military service, or any other non-merit based factor.