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

KCTCS COLLEGES

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

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

Bluegrass Community and Technical College
bluegrass.kctcs.edu
855.246.2477 (toll-free)

Elizabethtown Community and Technical College
elizabethtown.kctcs.edu
270.769.2371

Gateway Community and Technical College
gateway.kctcs.edu
855.346.4282 (toll-free)

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

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

Hopkinsville Community College
hopkinsville.kctcs.edu
270.707.3700

Jefferson Community and Technical College
jefferson.kctcs.edu
502.213-5333

Madisonville Community College
madisonville.kctcs.edu
270.821.2250

Maysville Community and Technical College
maysville.kctcs.edu
606.759.7141

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

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

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

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

West Kentucky Community and Technical College
westkentucky.kctcs.edu
855.469.5282 (toll-free)
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The KCTCS Catalog serves as the students’ guide to academic programs and services that our colleges provide. Students who enroll in an academic program should fulfill requirements as they exist at the time of such enrollment. If requirements change while the student is enrolled in a program, he/she may fulfill either the new or old requirements.

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

You’re making a smart choice by choosing KCTCS. Our tuition is the lowest in the state – less than half of what you’d pay at a four-year university. We believe in you and your potential, and our faculty and staff are here to help you every step of the way.

If you have questions about anything you see in the catalog, how to enroll, financial aid or any other concern, contact the KCTCS college nearest you or call (855) 465-2827. Our Go KCTCS! call center never closes, so anytime you have a question, someone will be there to answer it. You’ll also find more information about our colleges at kctcs.edu.

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

Sincerely,

[Signature]

President, KCTCS
History and Functions of KCTCS

The Kentucky Community and Technical College System (KCTCS) was created by the 1997 Kentucky Postsecondary Education Improvement Act to help improve access to higher education for all Kentuckians.

KCTCS is the largest provider of higher education, workforce training and online learning in Kentucky.

The 16 colleges of KCTCS have more than 70 campuses strategically located across the Commonwealth within a 30-minute drive of 95 percent of all Kentuckians.

Students can earn three types of credentials – certificates, diplomas and associate degrees including: associate in arts, associate in science and associate in applied science. Since our inception, we have increased the number of credentials awarded by 292 percent. KCTCS is number eight nationally in the number of credentials awarded, and number two based on population.

Our programs target Kentucky’s high growth industry sectors such as healthcare, manufacturing, energy, IT/business and transportation/logistics. Some programs in these fields can be completed in four months or less. We collaborate with businesses throughout the state to align our programs with their needs so our students can step out of college and into a job.

Through our business partnerships and registered apprenticeships we provide students with the skills required today and to help industries and individuals develop the capabilities they will need tomorrow. Since 2000, our Workforce Solutions team has served three million program participants.

Last year, KCTCS trained and educated:

- More than 106,000 credit-seeking students.
- 82 percent of skilled trades workers.
- 87 percent of all associate degrees in nursing and allied health
- 66 of the state’s total nursing and allied health credentials.

KCTCS colleges offer a wide range of student services. The majority of our students receive 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. Students pay less than half the cost of the state’s public four-year universities.

Each KCTCS college is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (SACS), and our mission is to improve the lives and employability of Kentuckians.

To learn more about KCTCS, visit kctcs.edu.

Mission Statement

Kentucky Community and Technical College System

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/Admission office at their local college for the local academic calendar.

The following closings are applicable to all KCTCS institutions:

July
4 Independence Day observed

September
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
10 Good Friday (1/2 Day)

May
25 Memorial Day
KCTCS Leadership*

*This page reflects KCTCS leadership as of July 1, 2019

KCTCS Board of Regents
Dr. Gail R. Henson, Chair
Ms. Lisa V. Desmarais, Vice Chair
Ms. Mary R. Kinney, Secretary
Mr. Damon V. Allen
Mr. Marc J. Blunk
Ms. Karen A. Finan
Dr. Wynetta J. Fletcher, DNP, APRN
Dr. Angela Fultz
Ms. Marcia L. Roth
Mr. Ricky T. Shaw
Mr. James Lee Stevens
Mr. Donald R. Tarter
Ms. Tammy C. Thompson
Mr. Mark A. Wells

Foundation Board of Directors
Barry S. Bishop, Chair
Raymond Daniels, Immediate Past Chair
Anthony Campbell, Treasurer
Whitney Greer, Secretary
John Gohman
Lee Lingo
Scott Seger
Dr. Scott Williams
Marcia L. Roth, Ex-Officio Member
Dr. Jay K. Box, Ex-Officio Member

President
Dr. Jay K. Box

President’s Cabinet
Dr. Paul B. Czarapata
Mr. Wendell A. Followell
Hon. Hannah Hodges
Dr. Gloria S. McCall
Mr. Benjamin T. Mohler
Hon. Michael Murray
Dr. Kristin Williams

College Leadership

Ashland Community and Technical College
Dr. Larry Ferguson
President/CEO

Big Sandy Community and Technical College
Dr. Sherry Zylka
President/CEO

Bluegrass Community and Technical College
Dr. Koffi Akakpo
President/CEO

Elizabethtown Community and Technical College
Dr. Juston C. Pate
President/CEO

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

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

Henderson Community College
Dr. Jason Warren
President/CEO

Hopkinsville Community College
Dr. Alissa Young
President/CEO

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

Madisonville Community College
Dr. Cynthia Kelley
President/CEO

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

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

Somerset Community College
Dr. Carey W. Castle
President/CEO

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

Southeast Kentucky Community and Technical College
Dr. Vic Adams
President/CEO

West Kentucky Community and Technical College
Dr. Anton Reece
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 located in Northeast Kentucky. The College supports a variety of excellent associate degree, diploma, and certificate programs with a tradition of accessible, affordable, and quality education. The College prepares students for transfer to baccalaureate programs or entry into the workforce, and has a strong commitment to meet their academic, workforce training, and lifelong learning needs.

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

Occupational/Technical 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)
Appalachian Studies (C)
Applied Process Technologies (C, A)
Automotive Technology (C, D)
Business Communications (C)
Business Foundations (C)
Business Studies:
  Administrative Office Technology (C, D, A)
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D, A)
  Certified Medical Technician (C)
  Computer Aided Drafting and Design (C, D)
  Computer and Information Technologies (C, D)
  Computerized Manufacturing and Machining (C, D)
Cosmetology (C, D)
Criminal Justice (A, C)
Culinary Arts (C, D, A)
Diesel Technology (C, D)
Digital Printing Technology (C)
Emergency Medical Services – Paramedic (D)
Emergency Medical Technician (C)
Energy Technologies (C)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)

Health Science Technology (A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  Electrical Technology (C, D)
  Industrial Maintenance Technology (A, C, D)
Marine Technology (C, A)
Medical Assisting (C)
Medical Laboratory Technician (C)
Nursing (A)
Nursing Assistant – Advanced (C)
Practical Nursing (C, D)
Respiratory Care (A)
Surgical Technology (D)
Truck Driver Training (C)
Welding Technology (C, D)

Contact Information

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

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

General Information

Admissions (606) 326-2413
Advising Center (606) 326-2040
Adult Education and Literacy (606) 326-2457
Business Office (606) 326-2041
Center for Community, Workforce and Economic Development (606) 326-2129
Community and Technical College Foundation (606) 326-2071
Disability Services (606) 326-2051
Financial Aid (606) 326-2198
Human Resources (606) 326-2044
Library (606) 326-2169
Public Relations (606) 326-2103
Records (606) 326-2413
Veterans Affairs (606) 326-2275
Website (webmaster) (606) 326-2090

Administration

President – Dr. Larry Ferguson (606) 326-2043
Interim Dean of Academic Affairs/CAO – Steve Flouhouse (606) 326-2055
Dean of Business Affairs – Karen Blevins (606) 326-2063
Director of Advancement-Brooke Seasar (606) 326-2092
Dean of Institutional Planning, Research and Effectiveness – Steve Flouhouse (606) 326-2055
Dean of Student Success and Enrollment Services – Steven Woodburn (606) 326-2077
Associate Dean of Information Technology – Farnoosh Rafiee (606) 326-2069
Registrar/Director of Admissions – Robin Lewis (606) 326-2423
Director of Financial Aid – Adam Chapman (606) 326-2114
Director of Cultural Diversity – Al Baker (606) 326-2422
Faculty
Allen, Joseph D, Instructor, MSN, Chamberlain College of Nursing, 2015
Allen, Kimberly Brooke, Instructor, ADN, Ohio University, 2014
Alley, Alan C, Professor, DC, Palmer College of Chiropractic, 1998
Bailey, Danny G, Professor, MS, University of Kentucky, 1971
Blair, Kathy L, Assistant Professor, MSN, University of Phoenix, 2012
Boggs, Christopher J, Professor, AAS, Institute of Electronics Technology, 1992
Bowman, Curtis D, Professor, Certification, Collins Career Center, 1979
Bradley, John M, Professor, Certification, National Institute for Automotive Service Excellence, 1999
Bradley, Peggy L, Professor, BS, Morehead State University, 1979
Brown, Sara A, Professor, MLS, University of Kentucky, 2003
Carroll, Brigitte Lee, Instructor, BSN, Mountain State University, 2008
Cassady, Jeffrey M, Assistant Professor, AAS, Ashland Community and Technical College, 2013
Childress, David C, Professor, Morehead State University, 1985
Collins, Anne Marie, Instructor, Certification, Belafonte Beauty College, 2005
Conley, Richard R, Professor, MS, University of Kentucky, 1973
Cullum, Randolph, Associate Professor, MA, Marshall University, 1981
Davis, Virgil K, Professor, MA, Morehead State University, 1986
Dean, Whitney M, Assistant Professor, MSN, Walden University
Edwards, Kathryn Hare Tucci, Professor, MA, Marshall University, 1991
Flath, Mary C, Professor, PhD, Medical University of South Carolina, 1991
Flouhouse, Steven D, Professor, MS, Marshall University, 1991
Fosson, Woodrow, Associate Professor, Associate of Applied Technology, ACTC, 2001
Fosterwelsh, Wendy, Professor, MFA, Georgia Southern University, 2004
Frye, Bettie E, Professor/Librarian I, MLS, University of South Carolina, 1989
Griffith-Green, Nicole, Professor, EdD, University of the Cumberlands, 2015
Hall, James C, Assistant Professor, MA, University of Louisville, 2014
Hall, Ralref J, Professor, MS, Morehead State University, 1993
Hankins, Shannon, Instructor, PhD Ohio University 2015
Henderson, Lisa Marie, Instructor, PhD, University of Phoenix, 2013
Henry, Harold Edmond, Associate Professor, AAS, Ashland Technical College, 2002
Howard, Warren H, Professor, MA, Morehead State University, 2003
Howerton, Deena, Assistant Professor, BSN Bellarmine College 2002
James, Jesse J, Associate Professor, AAS, Ashland Community and Technical College, 2010
Joy, Jonathan, Associate Professor, MA, Marshall University, 2004
Justice, Debra, Professor, MA, Marshall University, 1997
Klinepeter, Pamela, Professor, MLS, University of Kentucky, 2005
Kumar, Ramamurthy Chandra, Professor, MS, Florida Institute of Technology, 1986
Martin, Frances, Professor, AME, Morehead State University, 1994
McCarthy, Shannon, Associate Professor, Certification, Collins Career Center, 1990
McMinnis, Vicki, Associate Professor, MA University of Kentucky, 1994
Meade, Kayla, Instructor, MS, Eastern Kentucky University, 2015
Mengistu, Aschalew, Associate Professor, PhD, University of Wales College of Medicine, 2002
Merritt, Richard P, Associate Professor, MA, Marshall University, 2011
Mohebbian, Hossein, Professor, MA, Marshall University, 1983
Music, Stephen L, Assistant Professor, AAS, Big Sandy Community and Technical College, 2012
Osborne, Lydia Gail, Instructor, MSN, Walden University, 2015
Pfau, Matthew Scott, Instructor, BS, Morehead State University, 2017
Rafiee, Farroosh, Professor, MA, Marshall University, 1982
Ratliff, Terri Lynn, Associate Professor, BSN, Marshall University, 1993
Riggs, Mark, Professor, MS, Mississippi State University, 2000
Robinson, Natalie, Associate Professor, BSN, Bellarmine University, 2007
Sharp, Beverly Ann, Instructor, BS, Marshall University
Shelton, Cynthia, Professor, AME, Marshall University, 1992
Skidmore, Ashley, Associate Professor, MA, University of Kentucky, 2006
Smith, Mark S, Assistant Professor, BS, Morehead State University, 1999
Smith, Mourine K, Assistant Professor, AAS, Somerset Community College, 2010
Stevens, Tyler B, Assistant Professor, AAS, Ashland Community and Technical College, 2009
Stewart, Courtney Brooke, Instructor, AS, Ashland Community and Technical College, 2015
Tackett, Michael B, Assistant Professor, AS, Ashland Community and Technical College, 2008
Thompson, Janet C, Instructor, MS, Marshall University, 2013
Thornton, Jack D, Associate Professor, AAS, Columbus State University, 1986
Troupe, Sheri D, Wildely, Instructor, MA, Murray University, 2016
Tussey, Laura L, Associate Professor, MA, Marshall University, 2000
Wallace-Vernatter, Susan Y, Assistant Professor, BS, Bellevue University, 2008
Wheeler, Thomas, Instructor, Certification, Ashland State Vocational, 1986
Mission Statement/Status of Accreditation

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

Occupational/Technical Curricula
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.

Agriculture (C)
Air Conditioning Technology (C, D, A)
Applied Engineering Technology (C)
Auto Body/Collision Repair Technology (C, D)
Automotive Technology (C, A)
Broadband Technology (C, A)
Business Communications (C)
Business Foundations (C)
Business Studies:
  Administrative Office Technology (C, D)
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D, A)
Civil Engineering Technology (A)
Computer Aided Drafting and Design (C, D, A)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D)
Cosmetology (C, D)
Criminal Justice (C, A)
Culinary Arts (C, D)
Dental Assisting/Dental Hygiene (D, A)
Diesel Technology (C, D)
Education (C, A)
Emergency Medical Technician (C)
Energy Technologies (C)
Engineering and Electronics Technology (C, D, A)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Science Technology (A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C)
Manufacturing Engineering Technology (C)
Manufacturing Industrial Technology:
  Electrical Technology (C, D, A)
  Industrial Maintenance Technology (C, D, A)
Masonry (C, D)
Mining Technology (C, A)
Nursing (A)
Nursing – Academic/Career Mobility (A, D)
Nursing Assistant – Advanced (C)
Physical Therapist Assistant (A)
Practical Nursing (C, D)
Plumbing (C)
Respiratory Care (C, A)
Surgical Technology (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) 789-5321
bigsandy.kctcs.edu

General Information

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

Academic Center for Excellence
(606) 889-4834
Academic Services (Program Information)
(606) 889-4794
Admissions & Records Office
(606) 886-3863 Option 2
Adult Education
(606) 788-2887
Advising Center
(606) 889-4775
Business Services 1-855-G0-BSCTC (1-855-462-7282)
Career Education & Workforce Development
(606) 218-1276
Disability Services
(606) 886-7391
Financial Aid 1-855-G0-BSCTC (1-855-462-7282)
Library
(606)889-4834
President’s Office
(606) 886-7371
Public Relations
(606) 889-4734
Registrar
(606) 886-7335
Security
(606) 886-7364
Student Services
(606) 886-7395
Website

Administration

President
Dr. Sherry Zylka
Chief Financial Officer
Michelle Meek
Interim Chief Academic Officer / Dean of Academic Services
Myra Elliott
Dean of Information Technology & Facilities Mgmt
John Herald
Chief Student Affairs Officer
Jimmy Wright
Director of Business/Industry Development
Judy Daniel
(606) 788-2812
Director of Enrollment Management
Billie Jean Cole
(606) 889-4808
Director of East KY Science Ctr and Planetarium
Steven L. J Russo
(606) 889-4809
Director of Financial Aid
Cathy Hurd-Crank
1-855-GO-BSCTC
Director of Grants Development
Connie Estep
(606) 788-2892
Director of Human Resources
Krystal Tackett
(606) 889-4724
Director of Information Technology
Casey Music
(606) 788-2809
Director of Library Services
Vacant
(606) 889-4748
Interim Director of Performing Arts/Executive Director of the Mountain Arts Center
Joe Campbell
(606) 886-7388
Interim Director of Strategic Communications
Greta Slone
(606) 889-4734

Faculty
Adam, Kelly J, Professor, MS, Southern Connecticut State University, 1993
Allen, Collieta, Associate Professor, MSN, University of Phoenix, 2013
Baldridge, Harold, Assistant Professor, BS, University of Kentucky, 1968
Ball, Tammy, Professor, MSSW, University of Louisville, 1996
Barlow, Donald L, Associate Professor, PhD, Ball State University, 1987
Bays, Leslie M, Assistant Professor, MA, Morehead State University, 2010
Bell, Daniel E, Professor, MA, Northern Illinois University, 1986
Bennin, Hope E, Professor, MA, University of Wisconsin, 1987
Brooks, Michael Aaron, Instructor, AAS, Big Sandy Community & Technical College, 2017
Burchett, Nicole, Associate Professor, MSN, Northern Kentucky University, 2015
Cantrell, Etta L, Professor, MHE, Morehead State University, 1985
Carroll, Charlene, Assistant Professor, MSN, University of Kentucky, 1996
Carroll, John, Professor, MA, Morehead State University, 1999
Cole, Elizabeth M, Professor, MA, University of Iowa, 1989
Compton, Joseph L, Professor, BS, Morehead State University, 2013
Conn, Stephanie, Assistant Professor, MAE, Western Kentucky University, 2016
Davis, Brandie L, Instructor, MA, Eastern Kentucky University, 2006
Dempsey, Jeremy, Associate Professor, MA, Marshall University, 2005
Dickerson, Cindy, Associate Professor, MA, Morehead State University, 2008
Durham, Roberta, Assistant Professor, BSN, Morehead State University, 2009
Elliott, Myra T, Professor, MSN, University of Kentucky, 1993
Fields, Carmen, Associate Professor, BS, Western Kentucky University, 2013
Fields, Michelle, Professor, MA, Marshall University, 1995
Fitzpatrick, John J, Lecturer, BS, Morehead State University, 2013
Gambill, Jessica, Assistant Professor, MA, Union College, 2004
Gillis, Bill R, Professor, PhD, Florida State University, 1990
Hackney, Randal Clinton, Assistant Professor, MS, Morehead State University, 2007
Haney, Randell O, Professor, BS, Morehead State University, 2011
Harless, Irma Kay, Associate Professor, BSN, Morehead State University, 2013
Hicks, Jeffrey T, Professor, MA, Morehead State University, 2000
Howard, Jerry, Associate Professor, MA, Union College, 2006
Howell, Judy K, Professor/Librarian I, MA, University of Kentucky, 1992,
MSLS, University of Kentucky, 1994
Jackson, Patsy R, Professor, DNP, University of Kentucky, 2008
Jacobs, Sabra P, Professor, MA, Bowling Green State University, 1989
Jervis, Monica R, Instructor, BS, Eastern Kentucky University, 2017
Keathley, Heath, Assistant Professor, AAS, Big Sandy Community & Technical College, 2013
Keaton, Jill E, Instructor, DMD, University of Kentucky, 1990
Kinner, DeWayne, Instructor, Diploma, Big Sandy Community & Technical College, 2003
Laflarry, Natasha F, Instructor, AS, Pikeville College, 1998
LeBrun, Terri E, Professor, MS, Morehead State University, 2009
Leedy, Jennifer L, Associate Professor, EdD, Morehead State University, 2013
Lewis, Lori Deanne, Professor, BS, Morehead State University, 2011
Linkous, Scotty W, Instructor, Diploma, Big Sandy Community and Technical College, 1994
Little, Conda G, Professor, MA, Morehead State University, 2001
Madden, Darrell E, Associate Professor, MBA, University of Kentucky, 1980
Matjasic, Thomas D, Professor, PhD, Miami University, 1982
Maynard Jr, John L, Associate Professor, AAS, Big Sandy Community & Technical College, 2008
McClure, Jimmy, Associate Professor, BS, Morehead State University, 2011
McKenzie, Cynthia L, Professor, MBA, Morehead State University, 2001
McKenzie, Keithen Douglas, Professor, MS, Morehead State University, 2003
McKenzie, Marsha, Associate Professor, MA, Morehead State University, 2012
McKenzie, Vanessa Jean, Professor, MS, Morehead State University, 2005
Miller, Kathryn L, Professor, EdD, Morehead State University, 2015
Moore, Charles K, Professor, AAS, Big Sandy Community & Technical College, 2007
Mullins, Rebecca Ann, Professor, MA, Morehead State University, 2003
Music, Lisa J, Professor, PhD, University of Louisville, 2013
Oudad, Muhammed A, Instructor, PhD, Shah Jalal University of Science and Technology, 2001
Ousley, Tina Lee, Professor, MS, Morehead State University, 2003
Pack, Diana L, Professor, MA, Morehead State University, 2003
Profitt, Alan David, Professor, DMin, Asbury Theological Seminary, 2014
Ratliff, Teddy, Associate Professor, MSN, Kaplan University, 2010
Ray, Pamela, Associate Professor, BS, Western Kentucky University, 2013
Redmiles, Lisa P, Instructor, MAE, Eastern Kentucky University, 2011
Roe, Richard T, Lecturer, EdD, Morehead State University, 2011
Saad, Sandra, Professor, MA, University of Kentucky, 1987
Saad, Toufic A, Professor, MS, University of Kentucky, 1988
Skeens, Melissa B, Professor, BA, Morehead State University, 2010
Slone, Greta, Associate Professor, MA, Trinity College, 2003
Smallwood, Patsy, Instructor, AAS, Big Sandy Community & Technical College, 2016
Smith, Dwight P, Professor, MA, Bowling Green State University, 1979
Smith, Matthew, Associate Professor, MA, East Tennessee State University, 2009
Smith, Timothy, Associate Professor, MFA, University of North Carolina at Greensboro, 1993
Sofyan, Agus, Associate Professor, PhD, University of Kentucky, 2004
Sykes, Pamela J, Professor, MA, Morehead State University, 2002
Thacker, Joshua, Associate Professor, MAT, Morehead State University, 2008
Thomas, Shirley L, Professor, PhD, University of Louisville, 1993
Thompson, Paula B, Professor, MBF, Morehead State University, 1992
Turner, Garrison, Assistant Professor, MS, Ball State University, 2011
VanHoose B, Charles W, Associate Professor, AAS, Big Sandy Community & Technical College, 2012
Varney, Lesley Dean, Assistant Professor, BS, Eastern Kentucky University, 1980
Viehler, Chenzhao, Professor, PhD, Ohio University, 1991
Viehler, Thomas L, Professor, PhD, Ohio University, 1990
Wällen, Mary Stepp, Professor, MA Indiana State University, 1997, MFA Southern Illinois University-Carbondale, 2003
Watts, Randall L, Professor, MS, Eastern Kentucky University, 1991
Wells, Mark A, Professor, MA, Eastern Kentucky University, 1997
Williams, Rohren J, Instructor / Librarian IV, MS, University of Tennessee, 2000
Wright, Randall Keith, Instructor, AAS, Big Sandy Community & Technical College, 2015
Mission Statement/Status of Accreditation
Bluegrass Community and Technical College (BCTC) transforms the Bluegrass Region—one student, one employer, and one community at a time. With students at the heart of our mission, BCTC supports student access, success, and completion of educational goals through comprehensive services, high-quality career and technical education for workforce skills, transfer education for baccalaureate degrees, and life skills development.

BCTC promotes cultural awareness and inclusion, critical thinking, and civic responsibility. Through excellence in teaching and learning and strong partnerships, BCTC supports regional economic vitality and quality of life as a member college 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.

Filmmaking and Cinematic Arts (C, A)
- Theatre (A)

Occupational/Technical Curricula
Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), 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)
- Apprenticeship Studies (A)
- Architectural Technology (A)
- Automotive Technology (C, D, A)
- Biotechnology Laboratory Technician (C, A)
- Business Studies:
  - Administrative Office Technology (C, D, A)
  - Business Administration Systems (C, A)
  - Medical Information Technology (C, D, A)
  - Supply Chain Management (C, A)
  - Civil Engineering Technology (A)
  - Computer Aided Drafting and Design (C, D, A)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D, A)
- Construction Technology (C, D, A)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Dental Hygiene (A)
- Diagnostic Medical Sonography (A)
- Diesel Technology (C, A)
- Education (A)
- Emergency Medical Services – Paramedic (C, A)
- Energy Technologies (C)
- Engineering and Electronics Technology (C, D, A)
- Environmental Science Technology (A)
- Environmental Technology (C)
- Equine Studies (C, D, A)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Graphic Design and Library Technologies (C, A)
- Health Science Technology (A)
- Human Services (C, A)
- Integrated Engineering Technology (C, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Engineering Technology (C)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
- Medical Assisting (C, D, A)
- Nursing (A)
- Pharmacy Technology (C, D)
- Radiography (A)
- Respiratory Care (C, A)
- Security Management (C)
- Surgical Technology (A)
- Welding Technology (C, D, A)

Contact Information

Cooper Campus
470 Cooper Drive
Lexington, KY 40506-0235
(859) 246-6200
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Leestown Campus
164 Opportunity Way
Lexington, KY 40511-2623
(859) 246-6200
bluegrass.kctcs.edu

Newtown Campus
500 Newtown Pike
Lexington, KY 40508-1207
(859) 246-6200
bluegrass.kctcs.edu

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 40391-6078
(859) 737-3098
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Additional Sites
Newtown North Campus
Adult Education Building
690 Newtown Pike
Lexington, KY 40508-1207
(859) 246-6611
BCTCAdultEd.Fayette@kctcs.edu

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

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

Phone Numbers
General Information
(859) 246-6200
Admission
1-855-246-BGRS (1-855-246-2477)
Adult Education
(859) 246-6611
Student Billing
1-855-246-BGRS (1-855-246-2477)
Advising and Assessment
(859) 246-6220
Disability Support Services
(859) 246-6534
Financial Aid
1-855-246-BGRS (1-855-246-2477)
Human Resources
(859) 246-6643
Learning Resource Center
(859) 246-6380
Office of Communications
(859) 246-6507
Records and Registration
1-855-246-BGRS (1-855-246-2477)
Transfer Center
(859) 246-4620
Workforce Solutions
(859) 246-6666

Faculty
Adair, Gerald M, Associate Professor, MA, Florida Atlantic University, 2000
Akins, Justin, Instructor, MS, University of Kentucky, 2014
Akins, Marilyn, Associate Professor, PhD, Cornell University, 1993
Anderson, Stephanie A, Associate Professor, BA, University of Kentucky, 1987
Baker, Lucinda, Associate Professor, MA, Ohio University, 1997
Baker, Ashley, Instructor, BSN, Eastern Kentucky University, 2005
Baker, Melinda, Assistant Professor, DNP, University of Kentucky, 2013
Ball, Andrew Barrett, Associate Professor, MA, University of Kentucky, 1988
Barber, Antonio, Instructor, MS, Eastern Kentucky University, 2013
Barber, Cynthia E., Professor, MAT, University of Kentucky, 1984
Bell, Mark, Professor, M.S. University of Baltimore, 1994
Bentley, Michael D, Associate Professor, MA, Bowling Green State University, 2000
Biega, Robert J, Associate Professor, MAEd, Eastern Kentucky University, 1998
Binzer, Michael A, Associate Professor, BS, University of Cincinnati, 1987
Birch, Timothy E, Associate Professor, MFA, University of Kentucky, 2012
Blaydes, Mary, Professor, MS, University of Kentucky, 2002
Boes, Don, Associate Professor, MFA, Indiana University, 1985
Bond, Sarah, Instructor, MSN, Northern Kentucky University, 2016
Bottoms, Tabitha, Instructor, AAS Somerset Community College, 2012
Bradley, James W, Associate Professor, MS, University of South Carolina, 1999
Breening, Sharon K, Professor, MA, Morehead State University, 1983
Bronner, Nancy, Professor, MSN, University of Kentucky, 1979
Brown, Dana, Associate Professor, BS, Murray State University, 2002
Bucksner, Terry, Professor, MSLS, University of Kentucky, 2001
Bukowski, Susan, Associate Professor, MSN, Wichita State University, 1999
Campbell, Lauren, Assistant Professor, MBA, Eastern Kentucky University, May 2013
Casey, Crystal, AS, Eastern Kentucky University, 2003
Cavallaro, Morgan, BS, Spencerian College, 2016
Chirwa, Robert M, Professor, MS, University of Kentucky, 1990
Clark, Jamie, Assistant Professor, BBA, Morehead State University, 2002
Clifford, Holly, Instructor, MS, Eastern Kentucky University, 2015
Coffey, Bobby J, Associate Professor, MA, Eastern Kentucky University, 2006
Congleton, Yasemin K, Professor, PhD, University of Kentucky, 2005
Cook, Kara Lynne, Assistant Professor, MS, Brigham Young University, 1996
Craft, Saretta, Assistant Professor, MS, University of Kentucky, 2003
Craycraft, Kevin, Associate Professor, AAS, Central Kentucky Technical College, 2005
Cropper, Maureen Elizabeth Tobin, Professor, MSIS, Louisiana State University, 2004
Davis, James Scott, MS, Instructor, University of Nebraska at Kearney, 2015
Davis, Jody, MSN, Kaplan University, 2016
Davis, Timothy J, Associate Professor, MFA, University of Southern Mississippi, 1997
Davis, William, Professor, MAEd Georgetown College, 1995
Disco-Bogg, Tamara, Associate Professor, BS, University of Kentucky, 1981
Dragan, Judy, Associate Professor, MS, University of Florida, 1982
DuKate, Amy, Instructor, MEd, William Woods University, 2019
Dunn, Kevin R, Professor, EdD, University of Kentucky, 2017
Durham, Jeffrey L, Associate Professor, BArch, University of Kentucky, 1992
Eldridge, Brent A, Professor, PhD, University of Kentucky, 2014
Elzey, Barbara, Professor, MA, University of Kentucky, 1997
Embry-Bailey, Nolen, Professor, MA, University of North Alabama, 1979
Fairchild, Virginia R, Professor, MBA, Eastern Kentucky University, 1993
Farrell, Carla, Instructor, MSN, Indiana Wesley University, 2016
Fenton, James P, Associate Professor, PhD, Columbia University, 1991
Fitch, Stephanie, Assistant Professor, MA, Communication, Regent University, 2003
Franklin, William, Assistant Professor, BS, University of Kentucky, 1992
Frisbie, Elizabeth C, Professor, PhD, Pennsylvania State University, 1987
Galvin, Sarah J, Professor, MA, Murray State University, 2005
Gannon, Shawn, Assistant Professor, AAS KCTCS, BCTC, 2010
Gauthier, Karen, Associate Professor, PhD, University of Kentucky, 2012
Grigsby, Adam, Instructor, A.A.S. Bluegrass Community and Technical College, 2008
Hackney, Sandra M, Associate Professor, AAS, Lexington Community College, 1996
Hagan, Kelly, Associate Professor, MA, Ball State University, 1992
Haggerty, Robin, Professor, MA, Indiana University of Pennsylvania, 1993
Hakcomb, Don Anthony, Associate Professor, MS, University of Kentucky, 2005
Haley, Rebecca J, Professor, MA, Eastern Kentucky University, 2002
Hardin, Michael, Associate Professor, BS, Eastern Kentucky University, 1993

Administration
President/CEO
Dr. Koffi C. Akakpo
Vice President, Academics and Workforce Development
Greg Feeney
Dean of Academics
Karen Mayo
Dean of Academics
Tammy Liles
Dean, Workforce Development
Pam Hatcher
Dean, Academic Support
Rebecca Simms
Vice President, Student Development and Enrollment Management
Palisa Williams-Rushin
Vice President Advancement and Organizational Development
Mark Manuel
Vice President, Finance and Operations
Lisa Bell
Chief Officer, Public Information and Marketing
Mark Manuel
Chief Development Officer
Laurel Martin

11
Harlow, Aaron, Instructor, AAS, Parkland College, 2009
Hayes, Dixie, Instructor, BA, Midway College, 2008
Healander, Beth J, Professor, MED, University of Minnesota, 1996
Hedgcock, Susan, Assistant Professor, MSN, University of Kentucky, 2004
Herrin, Jeffrey, Associate Professor, MAT, Eastern Kentucky University, 2002
Herschleb, Matthew, Assistant Professor, MA, University of Kentucky, 2011
Hinkle, Robert R, Professor, MA, University of Kentucky, 2000
Hoeftstra, Joshua M, Professor, PhD, University of Kentucky, 2019
Holderness, Staci, Associate Professor, MA, Eastern Kentucky University, 2004
Holt, Deborah Jones, Professor, MS, University of Kentucky, 1995
Hopper, Kevin R, Professor, PhD, University of Kentucky, 1998
Houghton, Lori, Professor, MA, Eastern Kentucky University, 1995
Howell, Gary, Instructor, BS, Liberty University, 2010
Huddleston, Angela, Associate Professor, MS, Eastern Kentucky University, 2010
Humble, Jeanne Sue, Associate Professor, MA, University of Kentucky, 1970
Hunt, Andrew Franklin, Associate Professor, MSED, University of Kentucky, 2006
Jenkins, Marly G, Instructor, AAS, Bluegrass Community and Technical College, 2016
Jensen, Kevin, Assistant Professor, BA, Brigham Young University, 1987
Jent, Ashley, Assistant Professor, BS, Midway University, 2019
Johnson, Tanya R, Assistant Professor, BA, University of Kentucky, 1992
Jones, Jenny, Associate Professor, PhD, Capella University, 2018
Jones, Mary W, Associate Professor, MPhi, Eastern Kentucky University, 2013
Kalala, Nkongo, Associate Professor, PhD, University of Kentucky, 1997
Kelly, Ryan S, Professor, MS, Florida State University, 1995
King, Angella M, Professor, MA, University of South Carolina, 2000
King, Richard N, Professor, MS, University of Kentucky, 1994
Klosterman, Lesley, Assistant Professor, MRS, Northwestern State University, 2017
Knight, Brandon, Professor, MA, Texas Tech University, 1998
Knowles, Tracy Lyn, Professor, MS, University of Indiana, 1998
Kolasa, James Reid, Professor, MS, University of Kentucky, 1994
Lanier, Rebecca A, Associate Professor, MA, University of Kentucky, 1993
Larabee, Shelley, Instructor, PhD, University of Kentucky, 2008
Lelle, Patricia Sue, Professor, PhD, University of Indiana, 2004
Leon, Ana E, Professor, MS, Jackson State University, 1987
Liles, Tammy Jo, Professor, MS, University of Kentucky, 1994
London, Rosalind, Instructor, MSN, Frontier Nursing University, 2012
Livingston, Daniel, Assistant Professor, Savannah College of Art and Design, 2016
Long, Jarvis, Instructor, BBA, Eastern Kentucky University, 1974
Lynch, Laura, Assistant Professor, MS, Eastern Kentucky University, 2006
Magee, David A, Professor, MBA, University of Cincinnati, 1981
Marraccini, Patricia, Instructor, MSN, University of Kentucky, 2002
Matcheny, James K, Associate Professor, BS, University of Indiana, 1987
Matthews, Holly, Instructor, MSN, Walden University, 2016
Mayer, Danny, Associate Professor, PhD, University of Kentucky, 2007
Mayo, Karen, Associate Professor, PhD, University of Kentucky, 2015
McCane, Rebecca, Associate Professor, MS, Morehead State University, 1988
Merrill, Colleen, Assistant Professor, MFA, University of Kentucky, 2013
Miller, Kausha C, Professor, MNS, Northeast Missouri State University, 2000
Miller, Patricia P, Professor, MAEd, University of Kentucky, 1994
Miriti, Landrea A, Professor, PhD, University of Louisville, 2014
Motamedi, Hossein, Associate Professor, MA, University of Kentucky, 1986
Mullins, Larry McDowell, Associate Professor, MS, Eastern Kentucky University, 1973
Murphy, Donna L, Professor, MHE, Morehead State University, 1982
Murphy, William Kevin, Professor, MBA, University of Kentucky, 1991
Ottone, Idah Ako, Professor, PhD, University of Kentucky, 2012
Papanicolaou, Thomas, Associate Professor, MS, University of Kentucky, 1994
Partin, Vicki D, Professor, MS, University of Kentucky, 1981
Pelfrey, DeAnna S, Professor, MS, Eastern Kentucky University, 2005
Pelfrey, Holly Joyce, Associate Professor, MSED, University of Kentucky, 1993
Perry Jr, Clevis C, Associate Professor, MA, Western Kentucky University, 1985
Pevley, Jennifer, Professor, MAEd, Eastern Kentucky University, 2007
Phillips, Erica, Instructor, Biology, Eastern Kentucky University, 2013
Potter, William "Ralph", Assistant Professor, BS, Western Kentucky University, 2014
Puckett, Cheryl L, Associate Professor, MSN, Eastern Kentucky University, 2000
Relford, LaVetta, Assistant Professor, MSRS, Midwestern State University, 2001
Richardson, Kathleen E, Professor, MALRS, Rosary College, 1983
Rickett, Gregory W, Professor, MA, University of Kentucky, 1972
Rigney, Leif E, Associate Professor, MA, Eastern Kentucky University, 2001
Ripley, Michael Bret, Professor, Eastern Kentucky University, 1990
Richley, Stacy, Instructor, DNP, University of Kentucky, 2016
Roberts, Danny D, Instructor, AAS, Central Kentucky Technical College, 2004
Robertson, Allan S, Associate Professor, MS, University of Louisville, 2008
Roemnele, Lise I, Professor, MSN, State University of New York at Stony Brook, 1997
Rogers, Thomas Foster, Professor, MA, University of Kentucky, 2007
Ross-Brown, Kimberly, Associate Professor, MA, University of Nebraska, 1996
Rutherford, Maria, Professor, MA, Regent University, 2006
Saladin, Todd, Instructor, BS, University of Kentucky, 1993
Sallee, Melanie D, Professor, DNP, Eastern Kentucky University, 2017
Sauer, Sara, Assistant Professor, BS, University of Kentucky, 2009
Saulnier, Margaret E, Professor, PhD, University of Kentucky, 1987
Schuman, Daniel B, Professor, PhD, University of Kentucky, 2002
Scott Jr, John C, Associate Professor, MA, Eastern Kentucky University, 1990
Shelton, Becky, Assistant Professor, MEd, Indiana and Wesleyan, 2004
Simms, Ruth A, Professor, MS, Eastern Kentucky University, 1995
Simpson, Zachary, Associate Professor, BHSc, University of Kentucky, 2011
Smith, Virginia Kay, Instructor, MSN, Grand Canyon University, 2017
Smoot, Richard C, Professor, PhD, University of Kentucky, 1988
Snyder, William D, Associate Professor, DMD, University of Kentucky, 1993
Spencer, Janella, Professor, MSN, University of Kentucky, 1992
Steele, Brian, Instructor, BA, University of Kentucky, 1990
Stone, Steven A, Associate Professor, MBS, University of Illinois, Urbana-Champaign, 1991
Story, John E, Associate Professor, PsyD, Forest Institute of Professional Psychology, 1991
Strobel, Norman E, Professor, PhD, Cornell University, 1989
Sturdivant, Ty, Associate Professor, MBA, University of Kentucky, 1992
Sturgill, David, Assistant Professor, MA, Eastern Kentucky University, 2018
Sullivann-Davis, Deborah, Associate Professor, PhD, University of Kentucky, 2003
Swango, Kathleen, Professor, MA, Morehead State University, 1982
Sword, Erza, Instructor, MA, University of Texas at Austin, 2008
Thompson, Janie, Professor, MSN, University of Kentucky, 1999
Thrower, Jon, Instructor, MA, Southeast Missouri State University
Todd, Adrienne H, Assistant Professor, MA, Eastern Kentucky University, 1997
Travis, Rebekah, Instructor, AAS, Bluegrass Community and Technical College, 2012
Tucker, Cindy, Professor, MS, University of Kentucky 1999
Turner, Paul A, Professor, MS, University of Kentucky, 2008
Uhuru, Timothy J, Associate Professor, BS, University of Louisville, 1996
Vice, Diana, Assistant Professor, MSN, Northern Kentucky University, 2016
Watts, Jean, Associate Professor, MEd, Duke University, 1987
Webb, Dixie, Assistant Professor, MSN, University of Kentucky, 1977
Webster-Little, Stacy, Associate Professor, MA, University of Nebraska Lincoln, 1996
Wheeler, Yules, Professor, MA, Campbellsville College, 2008
White, Steven J, Professor, PhD, University of Illinois, 1990
White, Tanya, Associate Professor, MA, University of Kentucky, 1971
William, Ruth, Instructor, DNP, American Sentinel University, 2018
Williams, Laura A, Associate Professor, MA, Eastern Kentucky University, 1997
Williams, Myra L, Associate Professor, MSN, University of Kentucky, 1991
Williamson, Melanie Gail, Professor, MS, University of Kentucky, 2005
Wilson, Vicki Kegley, Professor, MA, University of Kentucky, 1982
Wiseman, Jackie, Professor, MS, Eastern Kentucky University, 1988
Zeps, Valdis J, Associate Professor, PhD, University of Washington, 1989
Mission Statement/Status of Accreditation

Elizabethtown Community and Technical College (ECTC) educates, empowers, and equips the diverse members of our region to compete in a complex workforce and improve their quality of life.

Mission Accomplished by providing:

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

Advanced Nursing Assistant (C)
Agriculture (C, A)
Air Conditioning Technology (C, D, A)
Apprenticeship Studies (A)
Automotive Technology (C, D, A)
Business Studies:
  Administrative Office Technology (C, D, A)
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D, A)
Computer Aided Drafting and Design (C, D, A)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D, A)
Criminal Justice (C, A)
Culinary Arts (C, D, A)
Diagnostic Medical Sonography (A)
Diesel Technology (C, D, A)
Emergency Medical Technician (C)
Engineering and Electronics Technology (C, D, A)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Science Technology (A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  Electrical Technology (C, D, A)
  Industrial Maintenance Technology (C, D, A)
Nursing (A)
Plumbing Technology (C, D, A)
Practical Nursing (C)
Radiography (A)
Real Estate (C)
Respiratory Care (C, A)
Social Media Marketing (C)
Welding Technology (C, D, A)

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

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

Springfield Campus
160 Corporate Drive
Springfield, KY 40069
(859) 336-1361

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

General Information
(270) 769-2371; (855)7GO-ECTC

Counseling, Advising & Transfer
(270) 706-8695
Disability Services
(270) 706-8455
Human Resources
(270) 706-8450
Library
(270) 706-8812
Public Relations
(270) 706-8530
Veterans Affairs
(270) 706-8815
Workforce Solutions
(270) 706-8700
Website
elizabethtown.kctcs.edu
**Administration**

President/CEO  
Provost/Chief Academic Officer  
Chief Student Affairs Officer  
Chief Financial Facilities Officer  
Dean of Business  
Dean of Workforce Development and Technical Programs  
Campus Director Springfield/Leitchfield  
Human Resources Director  
Financial Aid Director  
Public Relations Director  
Cultural Diversity Director  
Information Technology Director  
Educational Excellence Director  
Institutional Effectiveness Coordinator  
Distance Learning  
Division of Fine Arts & Humanities  
Division of Biological & Health Sciences  
Division of Physical Sciences  
Division of Social & Behavioral Sciences  

Dr. Juston C. Pate  
Dr. Tiffany Evans  
Dr. Dale Buckles  
Brent Holscaw  
Kris Wood  
Michael Hazzard  
Darrin Powell  
Whitney Taylor  
Michael Barlow  
Mary Jo King  
Noel Helm  
Chris Lee  
Pat Harper  
Sarah Edwards  
Gwen Sutherland  
Jacqueline Hawkins  
Lois Chandler-Cousins  
Shawn Kellie  
Ramona Barrow

**Faculty**

Barrow, Ramona, Associate Professor, MS, Strayer University, 2004  
Beauchamp, Cheryle, Associate Professor, MBA, DeVry University, 2008  
Blanks, Rhonda, Associate Professor, MSN, University of Phoenix, 2010  
Bradley, Joseph, Instructor, PhD, University of Louisville, 2018  
Bratcher, Tracy Renea, Professor, MA, Western Kentucky University, 1998  
Brookman, Douglas W, Associate Professor, AAS/AAT, Elizabethtown Technical College, 2000  
Brooks, Joshua David, Instructor, AS, Colorado Technical University, 2014  
Brothers, Stephanie, Assistant Professor, BS, University of Louisville, 2011  
Brown, Charles J, Professor, MBA, University of Louisville, 1969  
Brown, Margaret, Associate Professor, MA, Western Kentucky University, 2007  
Brown, Shawn, Associate Professor, MS, Northern Kentucky University, 2014  
Burns, Erin, Instructor, BS, Morehead State University  
Cameron, Sandra W, Professor, ME, University of Louisville, 2007  
Cantrell, Douglas E, Professor, MA, University of Kentucky, 1985  
Cantrell, Lisa A, Professor, MA, Morehead State University, 1986  
Chandler-Cousins, Lois, Associate Professor, MED, University of North Carolina, 1997  
Chism, John, Associate Professor, AAS, Elizabethtown Community & Technical College, 2002  
Clemons, Jerry I, Professor, MS, Eastern Kentucky University, 2010  
Cole, William, Professor MS, Murray State University, 2001  
Condiff, Sara E, Associate Professor, MAE, Western Kentucky University, 2007  
Cooper, Yavaelita K, Assistant Professor, MS, Delta State University, 2012  
Cordova, Timothy M, Professor, MA, Midwestern State University, 2002  
Coulston, Charles, Associate Professor, MS, University of Kentucky, 2006  
Counts, Gideon John, Instructor, AAS, Elizabethtown Community & Technical College, 2017  
Coy, Julie S, Professor, MAE, Western Kentucky University, 1998  
Csonka, Thomas Allen, Assistant Professor AAS, Elizabethtown Community & Technical College, 2013  
Davis, John D, Associate Professor, PhD, University of Kentucky, 2003  
Dile, Beverly, Professor, MA, West Virginia University, 1984  
Dixson, Lucinda, Associate Professor, DVM, Auburn University, 2010  
Doty, Brent Morgan, Professor, MA, Western Kentucky University, 2003  
Drucn, Joshua William, Associate Professor, Morehead State University, 2012  
Dryden, John, Associate Professor, PhD, University of Louisville, 2013  
Edwards, Sarah, Associate Professor, MS, Walden University, 2007  
Eicher, Katrina M, Professor, MA, University of Nebraska, 1989  
Embry, Robin D, Professor, MSN, University of Louisville, 1994  
Faherty, Erin G, Instructor, MA, Northern Illinois University, 1992  
Fox-Angerer, Amy, Assistant Professor, MFA, Spalding University, 2009  
Gabehart, Stephen, Associate Professor, AS, Western Kentucky University, 2008  
Galloway, Joseph, Associate Professor, MS, Western Kentucky University, 2005  
Glutting, Martha J, Professor, MSN, University of Louisville, 1989  
Hamilton, Anna, Assistant Professor, MA, St. Catharine College, 2014  
Hampton, Julie R, Instructor, BS, Walden University, 2017  
Haque, Khondaker E, Professor, MA, University of Pittsburgh, 1981  
Harper, Pamela, Professor, MA, SCT, Murray State University, 1980  
Harris, Robert L, Professor, MA, Western Kentucky University, 1975  
Hasty, Heidi Salena, Instructor, AAS, Elizabethtown Community & Technical College, 2014  
Hawkins, Jacqueline, Professor, MA, Florida State University, 2006  
Hazzard, Michael W, Professor, BS, Western Kentucky University, 2007  
Henderson, JoNell, Assistant Professor, MBA, Amberton University, 1989  
Hicks, McLeah Dyer, Professor, MA, Western Kentucky University, 1994  
Higdon, Rebecca, Professor, MS, University of Louisville, 2011  
Hines, Brian A, Instructor, MS, Morehead State University, 2016  
Holman, Richard, Associate Professor, MBA, Georgia State University, 1976  
Hornback, Mary C, Professor, MA, Western Kentucky University, 1989  
Howard, Linda G, Professor, MAE, Western Kentucky University, 1980  
Johnson, Cyril, Associate Professor, BS, Western Kentucky University, 2006  
Kelley, Lawrence, Associate Professor, MA, University of Memphis, 2006  
Kellie, Shawn A, Professor, PhD, University of Louisville, 2005  
Kennedy, Kevin, Professor, MA, Indiana University, 1996  
Kroll, Daniel, Associate Professor, AAS, Elizabethtown Community & Technical College, 2008  
Likins, Stephen S, Associate Professor, AS, Western Kentucky University, 1999  
Lingrey, Deena, Associate Professor, MA, University of Louisville, 2009  
Lindsay, Rebecca, Instructor, BS, University of Missouri-Kansas City, 2012  
Lloyd, Daniel Montgomery, Associate Professor, MS, Eastern Illinois University, 1998  
Logsdon, Charles G, Professor, MA, University of Louisville, 1999  
Low, Robert Alan, Professor, AAS, Elizabethtown Technical College, 2010  
MacKellar, Laurie A, Professor/Library IMLS, University of Kentucky, 1992  
Madras, Navin, Associate Professor, MS, Marquette University, 2001  
Mallard, Jamie, Instructor, BS, Eastern Kentucky University, 2002  
Massaroni, Nolan, Instructor, AAS, Community College of the Air Force, 1995  
McFalls-Smith, Tiffany, Associate Professor, MS, Southeastern Louisiana University, 2004  
Meredith, Rosemary L, Professor, BS, University of Louisville, 1995  
Metzger, Revel I, Professor, MA, Western Kentucky University, 1999  
Meyer, Callista, Associate Professor/ Librarian II, MLS, University of Kentucky, 2007  
Mihales, Michael, Assistant Professor, MS, University of Maine, 2007  
Nail, Joe J, Professor, BS, University of Louisville, 2000  
Nason, Dean W, Associate Professor, MA, Western Kentucky University, 1979  
Nuszbaum, David D, Associate Professor, MA, University of Montana, 1992  
Owens, Johnny, Professor, MA, Western Kentucky University, 1986  
Owsley, Wanda D, Professor, PhD, University of Louisville, 2009  
Page, Martha, Associate Professor, MS, Vanderbilt University, 1979  
Parrett, Kevin, Associate Professor, MS, Sullivan University, 2005  
Pate, Fredericka Susie, Professor, AS, Sullivan University, 1995  
Pate, Lloyd, Associate Professor, AAS, Elizabethtown Technical College, 2003  
Poteet, Gordon D, Associate Professor, AS, Western Kentucky University, 1997  
Puckett, Thomas Lee, Instructor, AAS, Elizabethtown Community & Technical College, 2010  
Raizer, Glenn, Associate Professor, AAS, Elizabethtown Community & Technical College, 2005  
Ray, Rachel, Associate Professor, MA, Indiana University, 2005  
Rheinhardt, Andrew, Instructor, PhD, University of Kentucky  
Rigney, Mary Alisa, Associate Professor, MA, Western Kentucky University, 2001  
Rivera, Jeffrey, Professor, AAS, Elizabethtown Technical College, 2005  
Roberts, Phillip, Associate Professor, MBA, University of Phoenix, 2011  
Schor, James E, Professor, EdD, Northern Illinois University, 1994  
Slone, Anthony, Associate Professor, MBA, Ashland University, 2001  
Smith, Benjamin, Instructor, BS, Eastern Kentucky University  
Spalding, Jared C, Professor, BS, Western Kentucky University, 2002  
Spratt, Sharon I, Professor, MA, Western Kentucky University, 1989  
Stearns, Gary M, Professor, PhD, University of Kentucky, 1990  
Sutherland, Marty L, Professor, BS, Southern Illinois University, 1996  
Wolfe, Martha T, Professor, MS, University of Kentucky, 1978  
Wright, Myk, Assistant Professor, MS, Western Kentucky University, 2015  
Yates, Jennifer, Assistant Professor, MS, Western Kentucky University, 2012  
Young, Cody, Associate Professor, AAS, Bluegrass Community & Technical College, 2004
Mission Statement/Status of Accreditation
Gateway Community and Technical College provides high quality, affordable, accessible, and inclusive postsecondary education and training resulting in a positive contribution to the economic vitality of the region and enhanced quality of life for all citizens.

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

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

Advanced Manufacturing (C)
Air Conditioning Technology (C, D, A)
Apprenticeship Studies (A)
Auto Body/Collision Repair Technology (C, D)
Automotive Technology (C, D, A)
Business Studies:
  - Business Administration Systems (C, D, A)
  - Business Foundations (C)
  - Supply Chain Management (C, A)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Criminal Justice (C, A)
Diesel Technology (C, D, A)
Education (A)
Emergency Medical Services – Paramedic (C, A)
Emergency Medical Technician (C)
Energy Technologies (C, A)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Information Technology (C, A)
Health Science Technology (A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Engineering Technology (C, A)
Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
Massage Technology (C, A)
Medical Assisting (C, A)
Nursing (A)
  - Kentucky Medication Aide (C)
Plumbing Technology (C)
Medicaid Nurse Aide (C)
Truck Driver Training (C)
Welding Technology (C, D, A)

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

Boone Campus
500 Technology Way
Florence, KY 41042

Edgewood Campus
790 Thomas More Parkway
Edgewood, KY 41017

Urban Metro Campus
516 Madison Avenue
Covington, KY 41011

General Information
Admissions 1-855-3GO-GCTC (1-855-346-4282)
Adult Education (859) 442-1186
Advising Center (859) 442-1630
Assessment Center (859) 442-1159
Business Office 1-855-3GO-GCTC (1-855-346-4282)
Communications (859) 442-1172
Disability Services (859) 442-4120
Financial Aid 1-855-3GO-GCTC (1-855-346-4282)
Human Resources (859) 442-1150
Library and Information Services (859) 442-4162
Registrar (859) 442-4176
Safety and Security (859) 442-4129
Transfer (859) 815-7642
Urban Center (859) 442-1601
Veterans Affairs (859) 442-4114
Workforce Solutions (859) 442-4170
Website gateway.kctcs.edu
Facebook facebook.com/GatewayCTC
Administration

President
Executive Assistant to the President
Provost and Vice President, Academic Affairs
Vice President, Administrative and Business Affairs
Vice President, Development and External Relations
Associate Vice President, Academic Services
Associate Vice President, Student Development
Associate Vice President, Workforce Solutions
Dean, Arts and Sciences
Dean, Business, Information Technology and Professional Studies
Associate Vice President, Enrollment
Dean, Health Professions
Dean, Manufacturing and Transportation Technologies
Acting Registrar
Regional Director of Adult Education/Assessment/Placement Testing Coordinator
Director, Counseling Services
Director, Disability Services
Director, Diversity, Equity and Inclusion Initiatives
Director, Early College Opportunities
Director, Financial Aid
Director, Development
Director, Human Resources
Director, Information Services
Director, Knowledge Management
Director, Library and Information Services
Director, Maintenance and Operations
Director, North Central Area Health Education Center
Director, Nursing
Director, Student Record Department
Director, Safety and Security
Director, Student Support Services – Project Aspire
Director, Teaching and Learning

Faculty

Albert, Stephanie Winter, Associate Professor, MA, Northern Kentucky University, 1993
Baugh, Stacey L, Instructor, AAS, Beckfield College, 2009
Blum Pretty, Sherry, Associate Professor, MA, Northern Kentucky University, 2010
Bowen, Richard, Professor, AAB, Cincinnati State Technical and Community College, 1976
Burch, Courtney, Associate Professor, MA, Northern Arizona University, 2009
Camm, Jana, Associate Professor, MEd, Northern Kentucky University, 1981
Carrino, Amy, Associate Professor, JD, Salmon P Chase College of Law, 1988
Carroll, John, Instructor, JD, Salmon P Chase College of Law, 2000
Carter, Amber, Associate Professor, BS, Eastern Kentucky University, 2009
Collier, Samuel E, Associate Professor, MA, Morehead State University, 2018
Comparotto, William J, Instructor, MA, Miami University, 2008
Crawford, Charles, Instructor, AAS, Gateway Community and Technical College, 2018
Da Silva, Fares, Associate Professor, MA, Indiana State University, 2008
Deavy, Margaret S, Instructor, BSN, Northern Kentucky University, 2004
DeBerry, John R, Associate Professor, MA, University of Wyoming, 2003
Declay Willhite, Holly Michelle, Professor, PhD, University of Louisville, 2003
Dicke, Alexandria D, Instructor, BA, Northern Kentucky University, 2013
Donahue, William, Instructor, AAS, Bluegrass Community and Technical College, 2012
Donohoo, Kevin H, Associate Professor, AS, University of the State of New York, 1982
Down, Sharon, Assistant Professor, MA, University of Virginia, 1993
Ervin, Justin, Associate Professor, PhD, Northern Arizona University, 2011
Fitzgerald, Ty E, Instructor, MEd, Miami University, 2013
Foltz, Rodney, Instructor, 5 Years Occupational Experience, ASE Master Certification
Frazier, Paul, Associate Professor, PhD, University at Albany SUNY, 2001
Fritsch, Denise, Librarian III, MS, University of Kentucky, 2007
Gallagher, Richard, Instructor, BA, Thomas More College, 2014
Griffin, Josie, Instructor, BS, Eastern Kentucky University, 2016
Grooms, Chad M, Assistant Professor, MBA, Morehead State University, 1998
Hall, Gregory T, Instructor, BS, Northern Kentucky University, 1994
Haysbert, Ronald, Assistant Professor, BTM, DeVry University, 2009
Honu, Yohanes, Professor, PhD, Southern Illinois University, 2004
Hubbard, Lisa, Instructor, DNP, Vanderbilt University, 2012
Hughes, Keith, Assistant Professor, PhD, LSU Health Sciences Center, 1994
Jing, Weizhong, Associate Professor, MS, New Jersey Institute of Technology, 1998
Karlage, Martha, Instructor, BS, Eastern Kentucky University, 1986
Laws, Sarah, Instructor, AAS, Gateway Community and Technical College, 2008
Lutes, Paul Alan, Instructor, BS, Northern Kentucky University, 1995
Mathew, George, Professor, PhD, University of Kentucky, 1994
McKenna, Kerri, Associate Professor, EdD, Northern Kentucky University, 2011
Myka, Jennifer, Associate Professor, PhD, University of Kentucky, 2003
Neeley, Ron, Assistant Professor, BS, Northern Kentucky University, 2010
Necely, Rocky, Associate Professor, MA, University of Cincinnati, 2008
Nelson, Lance, Associate Professor, BA, Marshall University, 1987
Norris, Robert E, Instructor, 25 years of industry experience, Mssc Certified Logistics Technician, MA, Religion, 1992
Ostendorf, Audrey, Assistant Professor, MA, Northern Kentucky University, 2014
Owsey, Adarrell, Assistant Professor, MEd, Indiana Wesleyan University, 2012
Poppel, Elizabeth, Assistant Professor, BA, College of Mount St. Joseph, 1993
Ramanayake, Deepanishanthara, Associate Professor, MS, Morehead State University, 2008
Ramler, Meredith, Assistant Professor, MSW, University of Michigan, 2011, MS, University of Cincinnati, 2015
Reynolds, Jon, Instructor, BA, Centre College, 1995
Rickels, Christopher, Assistant Professor, MA, The University of Toledo, 2013
Rickert, Patrick E, Associate Professor, MS, University of Wisconsin, 2000
Riley, Michael P, Instructor, MBA, Morehead State University, 2005
Russell, Margaret, Instructor, MEd, Xavier University, 1990
Russey, Christopher D, Assistant Professor, MS, Syracuse University, 2006
Santos, Susan, Associate Professor, PhD, Walden University, 2004
Schafer, David, Assistant Professor, MA, Northern Kentucky University, 2013
Settlement, Beth, Associate Professor, ME, University of Cincinnati, 2008
Simms, Michele, Instructor, MSN, University of Phoenix, 2013
Smith, Sarah, Assistant Professor, MA, College of Mount St. Joseph, 2008
Stroud, Reva, Assistant Professor, BS, Northern Kentucky University, 2010
Thapa, Gajendra, Instructor, MS, University of Nevada, Reno, 2016
Vallette, Natasha, Associate Professor, MA, Bowling Green State University, 2012
Walter, Eileen, Instructor, MA, University of Cincinnati, 1998
Warburton, Charles, Professor, MA, University of Cincinnati, 2006
Wright, Dee, Associate Professor, 18 Years Teaching Experience, 26 Years Occupational Experience
Mission Statement/Status of Accreditation

Hazard Community and Technical College empowers students by providing educational opportunities that lead to student success, rewarding careers and community enhancement.

Hazard Community and Technical College is a member of the Kentucky Community and Technical College System serving the needs of South-eastern Kentucky.

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

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)
Agricultural Technology (C)
Air Conditioning Technology (C, D)
Automotive Technology (C, D, A)
Business Communications (C)
Business Studies:
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D, A)
Computer Aided Drafting and Design (C, D)
Computer and Information Technologies (C, A)
Construction Technology (C, D)
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 Care Foundations (C)
Health Care Specialist (C)
Health Information Technology (C, A)
Heavy Equipment Operation (C, D)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Engineering Technology (A)
Manufacturing Industrial Technology:
  Electrical Technology (C, D)
Medicaid Nurse Aide (C)
Medical Assisting (C, D, A)
Medical Laboratory Technology (C)
Nursing (A)
Physical Therapist Assistant (A)
Practical Nursing (D)
Professional Studio Artist (C, D, A)
Radiography (C, A)
Surgical Technology (A)
Surveying & Mapping Technology (C)
Telehealth Technician Associate (C)
Truck Driver Training (C)
Unmanned Systems Technology (C, A)
Visual Communication:
  Multimedia (C, D, A)
  Welding Technology (C, D)

Contact Information

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

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

Lees College Campus
601 Jefferson Ave.
Jackson, KY 41339

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

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

General Information

Academics (606) 487-3502
Admissions (606) 487-3293
Business Office 1-855-6GO-HCTC (1-855-646-4282)
Disability Services (606) 487-3486
Financial Aid (606) 487-3080
Human Resources (606) 487-3111
Library (606) 487-3304
Marketing/Public Relations (606) 487-3141
Records (606) 487-3311
Transfer Information (606) 487-3077
Veterans Affairs (606) 487-3059
Workforce Solutions (606) 487-3287
Website hazard.kctcs.edu
Administration

President/CEO
Dr. Jennifer Lindon
Delcie Combs

Assistant to the President
Dr. Sandra Kiddoo
Germaine Shaffer

Chief Academic Officer
Connie Watts
Donna Roark

Chief Information Officer
Vickie Combs
Keila Miller

Senior Director of Human Resources
Stu Fugate
Evelyn Wood

Dean of Operations
Dr. Paul Currie
Dr. Ella Strong

Public Relations Coordinator
Dr. Deronda Mobelini
Leila Sandlin Smith

Dean of Allied Health Science Technologies
Tony Back

Dean of Computer and Online Technologies
Dr. Beth Pennington

Dean of Heritage and Humanities

Dean of Sciences, Mathematics and KSBTM

Dean of Occupational Technologies

Dean of Retention Services

Faculty

Abney, Rebekah E, Assistant Professor, BSN, Eastern Kentucky University, 2017
Adams, Douglas D, Professor, AAS, Hazard Technical College, 2002
Back, Tony, Professor, MS, Eastern Kentucky University, 2012
Barnes Jr, Donald R, Professor, MS, Oklahoma State University, 1992
Boothe, Jenna L, Associate Professor, DNP, Western Kentucky University, 2015
Bowlin, Virgil L, Instructor, University of the Cumberlands, 1997
Bowling, Randy L, Assistant Professor, 48 years Teaching Experience, 29 years Occupational Experience
Browning, Tracy L, Professor, DPT, University of Kentucky, 2010
Branson, Cathy A, Professor, Librarian II, MLS, University of Kentucky, 2005
Brunty, Helen F, Professor, MSW, University of Kentucky, 2000
Bryant, Jeremiah, Professor, MA, Morehead State University, 2000
Bryant, Randall K, Professor, MA, West Georgia College, 1988
Caudill, Jimmy D, Professor, Diploma, Hazard Technical College, 1987
Clemons, Mavis, Assistant Professor, MS, Eastern Kentucky University, 2010
Collins, Gwendolyn, Professor, MSN, University of Kentucky, 1982
Combs, Jerry M, Professor, MA, Morehead State University, 2011
Cornett, Willie, Associate Professor, AAS, Hazard Community and Technical College, 2009
Couch, Melissa, Associate Professor, BS, Morehead State University, 2012
Cravens, Thomas L, Assistant Professor, MS, University of Kentucky, 1989
Currie, Paul B, Professor, DVM, University of Georgia, 2000
Davidson, Gwendolyn, Assistant Professor, MS, Morehead State University, 2014
Davis, Tammy A, Assistant Professor, MHA, Western Kentucky University, 2018
Dunn, Timothy J, Professor, MA, University of Kentucky, 1989
Flannery, Madeline K, Professor, MA, Columbia University, 1986
Francis, Sam W, Professor, PhD, University of Kentucky, 1998
Frazier, David L, Professor, MBA, Morehead State University, 1998
Frazier, Misty, Assistant Professor, MSW, University of Kentucky, 2011
Fugate, Renee Tabor, Professor, MS, University of Kentucky, 1993
Gibson, Diane A, Associate Professor, MS, Louisiana Tech University, 2009
Globig, Sabine A, Professor, MS, Rutgers University, 1988
Hagans-Shepherd, Ludiena Sue, Professor, MSN, Eastern Kentucky University, 2000
Herald, Patricia Ann, Professor, DSN, University of Alabama, 1993
Holl, Richard E, Professor, PhD, University of Kentucky, 1996
Holliday, Charmion, Instructor, AAS, Hazard Community and Technical College, 2014
Howard, Arzella W, Associate Professor, MSN, University of Phoenix, 2008
Howard, Cluster C, Professor, MA, Morehead State University, 1983
Hudson, Evelyn, Instructor, Librarian IV, MS, University of Kentucky, 2015
Ingram, Danny M, Professor, BS, Eastern Kentucky University, 2008
Johnson, Lisa, Instructor, MS, Chamberlain College of Nursing, 2016
Johnson, R Susan, Professor, BS, Eastern Kentucky University, 2007
Kidd Jr, Ralph E, Professor, MS, Eastern Kentucky University, 1991
Lewis, Everett C, Associate Professor, 26 years Occupational Experience
Lucero, Scott C, Professor, MA, University of Kentucky, 1992
Lutes, Jennifer, Assistant Professor, MA, Morehead State University, 2010
Maggard, Wilma, Assistant Professor, Certificate, Hazard Community and Technical College, 2003
Martin, Christina R, Professor, MSN, Eastern Kentucky University, 2009
Martin, Joanna H, Associate Professor, Diploma, Cumberland Valley Technical College, 1999
May, Scott R, Professor, MS, Indiana State University, 1990
Medlin, Rex, Lecturer, MS, Arkansas State University, 2007
Mobelini, Deronda C, Professor, Ed. D., University of Kentucky, 2012
Neace, Shaun, Instructor, AAS, Hazard Community and Technical College, 2003
Neace, Thomas D, Professor, MA, Eastern Kentucky University, 1996
Nichols, Ralph D, Instructor, 23 years Occupational Experience
Osborne, Norman Dean, Instructor, 34 years Teaching Experience, 30 years Occupational Experience
Pennington, Beth Ann, Associate Professor, Ed. D., Morehead State University, 2013
Petrey-Blandau, Sandra E, Professor, MA, Eastern Kentucky University, 1982
Reed, Ronald S, Professor, MA, University of Dayton, 1985
Richie, Tammy Lene, Professor, MBA, Morehead State University, 1985
Sasser, Lynn D, Professor, MS, Eastern Kentucky University, 1972
Shaffer, Germaine B, Professor, JD, University of Louisville, 1990
Sexton, Rachel Juunita, Professor, Diploma, East Kentucky Beauty College, 1998
Smith, Leila Sandlin, Professor, MBE, Morehead State University, 1987
Smith, Penny, Assistant Professor, MA, University of Kentucky, 1992
Smith, Walter, I Assistant Professor, MS, University of Cincinnati, 2007
Sears, April J, Instructor, MS, Eastern Kentucky University, 2008
Spencer-Barnes, Amanda G, Associate Professor, MA, Morehead State University, 2007
Stamper, Vera Dawn, Associate Professor, DPT, University of Kentucky, 2011
Strong, Ella J, Professor, Ed. D., University of Kentucky, 2011
Sturgill, Sherri M, Instructor, AAS, Hazard Community and Technical College, 2012
Swafford, Bryan, Associate Professor, BA, Alice Lloyd College, 2000
Terry, Homer, Professor, MS, Eastern Kentucky University, 2004
Turner, Tina, Instructor, BSN, Indiana Wesleyan University, 2016
Vergne, Stephanie L, Professor, MA, Morehead State University, 2001
Wernette, Amy S, Professor, MS, University of Michigan, 1996
Whittaker, Timothy, Professor, BS, Midwestern State University, 2005
Williams, Jenny D, Professor, MA, University of Kentucky, 1992
Wilkerson, April Graham, Instructor, MA, Eastern Kentucky University, 2005
Wood, Jeremy R, Professor, MS, University of Tennessee, 1993
The mission of Henderson Community College is to enhance the quality of life and employability of our community by serving as the leading provider of:

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

- Agriculture (C, D, A)
- Business Studies:
  - Business Administration (C, A)
- Business Management and Marketing (C)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C)
- Engineering and Electronics Technology (C)
- Health Science Technology (A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C)
  - Industrial Maintenance Technology (C, A)
- Medical Assisting (C, D, A)
- Medical Laboratory Technology (C, A)
- Nursing (A)
- Welding Technology (C)

Contact Information

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

General Information

Welcome Center
(270) 827-1867 or (800) 696-9958
Admissions
1-855-GO-HCC44 (855-464-2244)
Advancement
(270) 831-9626
Advising
(270) 831-9610
Assessment Center
(270) 831-9783
Business Office
1-855-GO-HCC44 (855-464-2244)
Continuing Education
(270) 831-9847
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
1-855-GO-HCC44 (855-464-2244)
Technology Solutions Help Desk
(270) 831-9616
Transfer Information
(270) 831-9828
Veterans Affairs
(270) 831-9627
Workforce Solutions
(270) 831-9847

Administration

President and CEO
Dr. Jason Warren
Provost
Dr. Renae Waggoner
Chief Business Officer
Ms. Christina Stinson
Chief Advancement Officer
Ms. Jennifer Preston
Director of Cultural Diversity
Mr. William L. Dixon
Director of Human Resources

Director of Knowledge Management
Mr. Brian McMurtry
Director of Preston Arts Center
Mr. Eric Kerchner
Chair, Allied Health Division
Dr. Carole Mattingly
Chair, Liberal Arts and Professional Studies Division
Ms. Sharon Burton
Chair, STEM Division
Mr. Barry Phelps
Associate Dean for Student Services
Mr. Cary Conley
Director of Nursing
Dr. Lori Donahoo
Director of Library and Tutor Services
Mr. Mike Knecht

Faculty

Becker, Kara, Associate Professor, ME, Western Kentucky University, 2003
Bell, Callie, Instructor, BSN, Murray State University, 2014
Belt, David, Instructor, MA, Lindenwood University, 2007
Blackburn, Catherine, Professor, MFA, East Carolina University, 1993
Blair, Adam, Instructor, MA, Oakland City University, 2011
Boles, Elaina, Instructor, BSN, Grand Canyon University, 2018
Burton, Sharon, Professor, MA, Ohio University, 1983
Chappell, Michelle, Associate Professor, MS, Morehead State University, 2011
Christen, Kathy, Instructor, MSN, University of Southern Indiana, 2017
Crack, Sarah, Assistant Professor, MNE, University of Southern Indiana, 2015
Dean, Kim, Professor, MS, Western Kentucky University, 1986
Donahoo, Lori, Assistant Professor, DNP, Western Kentucky University, 2017
Fritts, David, Professor, PhD, Ohio University, 2012
Furbush, Frank, Associate Professor, MS, Southern Connecticut College, 1982
Gary, William, Professor, MA, Florida State University, 1991
Griffis, Kacie, Associate Professor, MA, Eastern Illinois University, 2007
Hawa, Randa, Professor, MS, University of Evansville, 1991
Hunt, Cathy, Professor, MS, University of Kentucky, 1980
Jones, Mei, Associate Professor, MS, University of Southern Indiana, 2006
Joy, Brian, Associate Professor, MBA, National University, 2000
Joy, Lilia, Professor, MA, Murray State University, 2003, MFA, Murray State University, 2015
Knecht, Michael, Professor, MLS, Emporia State University, 1992, MBA, Western Kentucky University, 1999
Macke, Kaelyn, Instructor, MS, University of Southern Indiana, 2017
Maltby, Lorie, Professor, MA, Ohio University, 1983
Mattingly, Carole, Associate Professor, DNP, Western Kentucky University, 2015
McCarty, Steven, Professor, MA, Western Kentucky University, 1991
McGovern, Kimberly, Instructor, MSN, Western Kentucky University, 2019
Murray, Bridget, Professor, MEd, Indiana State University, 1998, EdD, Oakland City University, 2017
Patsalides, Eugenios, Professor, MA, Western Kentucky University, 1997
Phelps, Barry, Associate Professor, MA, Western Kentucky University, 2015
Reid, Kevin, Professor, MLS, University of Kentucky, 1993, MA, Purdue University, 1986
Smith, Mark, Instructor, MBA, University of Southern Indiana, 1999
Strawn, Anthony, Professor, MA, University of Evansville, 1979
Taylor, Scott, Associate Professor, MS, Murray State University, 2010, EdD, Western Kentucky University, 2017
Wells, Rebecca, Professor, MS, Eastern Kentucky University, 1985
Winstead, Laura, Professor, MS, Murray State University, 1996
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 and enables students to be responsible citizens in a global society.

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

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

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

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

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 Studies (A)
- Agriculture (C, D, A)
- Automotive Technology (C)
- Business Studies:
  - Administrative Office Technology (C, A)
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
  - Supply Chain Management (C)
- Computer Aided Drafting and Design (C)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D)
- Construction Technology (C)
- Criminal Justice (C, A)
- Diesel Technology (C, D, A)
- Emergency Medical Services – Paramedic (C, A)
- Emergency Medical Technician (C)
- Engineering and Electronics Technology (C, D, A)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Health Science Technology (A)
- Human Services (C, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
- Massage Therapy Technology (C)
- Medical Assisting (C, D, A)
- Medical Information Technology (C, D, A)
- Medical Laboratory Technician (C)
- Nursing (A)
- Pharmacy Technology (C, D)
- Physical Therapist Assistant (A)
- Practical Nursing (C, D)
- Radiography (A)
- Respiratory Care (A)
- Surgical Technology (A)
- 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

General Information
(270) 707-3700

Admissions
Larissa Horn
(270) 707-3813
(1-855-22GO-HCC (1-855-224-6422)

Adult Education
Gary Dawson
(270) 707-3926

Advising Center
Deloria Scott
(270) 707-3820

Testing Center
Martha Metcalfe
(270) 707-3826

Business Office
Matthew Davenport
(1-855-22GO-HCC (1-855-224-6422)
(270) 707-3729

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

President/CEO
Dr. Alissa Young

Chief Academic Affairs Officer (Interim)
Mr. James T. Hunter

Chief Student Affairs Officer
Mrs. Angela Prescott

Chief Business Affairs Officer
Dr. Dale Leatherman

Chief of Community, Workforce and Economic Development
Mrs. Carol Kirves

Chief of Institutional Advancement
Mrs. Yvette Y. Eastham

Fort Campbell Campus Director
Mrs. Allisha Lee

Division of Allied Health
Dr. Elizabeth Beverly

Division of Liberal Arts & Social Sciences
Mrs. Julia Laflloon-Jackson

Division of Mathematics and Sciences
Mr. Ted Wilson

Division of Nursing
Mrs. Joyce Lambruno

Division of Professional and Technical Studies
Mr. Arthur Pendleton

Faculty

Akpm, Reginald C, Associate Professor, PhD, Southern Illinois University, 2013
Anderson, Brian, Instructor
Anderson, Danny L, Assistant Professor, BSN, Austin Peay State University, 2013
Arnold, Jason E, Professor, MS, Murray State University, 2008, MS, Southern Illinois University at Carbondale, 1997
Aussenbaugh, Yasamin, Instructor, MA, Western Kentucky University, 2005
Beverly, Elizabeth A, Associate Professor, MS, University of Louisville, 2009
Beverly, Justin, Assistant Professor, MA, Ohio University, 2002
Burrell, Jahrel Victor, Assistant Professor, PhD, Kansas State University, 2009
Carlisle II, Thomas T, Professor, MA, Murray State University, 1994
Case, Kenneth Stewart, Professor, PhD, Vanderbilt University, 1991
Cawood, Marketa Liska, Professor, MA, State University of New Jersey Rutgers, 2007
Chester, Caitlin, Instructor, MA, Murray State University, 2010
Core, Dale, Instructor, AAS, KCTCS - Hopkinsville Community College, 2014
Cummins, Christopher Mark, Assistant Professor, MS, The University of Tennessee Knoxville, 2013
Davis, John P, Assistant Professor, PhD, University of Kentucky, 2012
Dougherty, Melissa, Instructor, MS, Miami University, 2016
Evans, Audrey D, Professor, EDS, Austin Peay State University, 1998
Felton, Kevin E, Professor, EdD, Tennessee State University, 1986
Folz, Julie, Instructor, AAS, KCTCS - Hopkinsville Community College, 2008
Higdon, Terri, Associate Professor, MSN, Murray State University, 2013
Howard, Yvette, Instructor, Ed.D., The University of Georgia, 1993
Hunter, James T, Professor, MS, University of Kentucky, 1984
Jackman, Sarah F, Associate Professor, ME, University of Texas at El Paso, 1980, MET, University of Texas at El Paso, 1992
James, Addison, Instructor, MA, Western Kentucky University, 2015
Laffoon-Jackson, Julia, Associate Professor, MA, Western Kentucky University, 1981
Lambruno, Joyce, Associate Professor, MSN, Murray State University, 2010
Larkin, Vernel D, Professor, EdD, University of Kentucky, 2001
Lee, Jason, Assistant Professor, MS, Murray State University, 2014
Lemons, Sherry L, Professor, MS, Austin Peay State University, 1994
Loggins, Nicole L, Instructor, MSN, Vanderbilt University, 2013
Lutz, Roger, Associate Professor, AAS, KCTCS - Hopkinsville Community College, 2004, Certification, CPPHM and CFPIHT, 2001
McCormack, Sherry Lynn, Associate Professor, MS, Murray State University, 2009
McGowen, Tonya, Instructor, AAS, KCTCS - Madisonville Community College, 2005
Meade, Beth, Assistant Professor, DNP, University of Kentucky, 2017
Meador, Barbara W, Professor, MA, Austin Peay State University, 1978
Nichols, Linda A, Professor/CC Library Services Director, MA, University of Louisville, 2006, MLIS, University of Kentucky, 2000
Offutt, Cynthia Whitsett, Instructor, MSN, Chamberlain College of Nursing, 2013
Partney, Jeffrey A, Associate Professor, Certificate, National Occupational Competency Testing Institute, 1999
Pendleton, Arthur D, Professor, MBA, Western Kentucky University, 2003
Pullen, Sherri, Assistant Professor, MSN, University of Southern Indiana, 2017
Ralph, Brett E, Professor, MFA, University of Massachusetts, 1993
Revelett, Rita Denise, Instructor, MSN, Chamberlain College of Nursing, 2017
Riley, Patrick J, Professor, MA, University of Missouri, 1997
Sandifer, Dana R, Professor, MSN, Murray State University, 1996
Sauer mann, Amanda C, Professor, MA, Gannon University, 1993
Schultz, Arthur Ray, Associate Professor, MS, Tennessee State University, 2009
Scott, Deloria A, Professor/CC Counselor, MS, Murray State University, 1996
Sims, Derek, Associate Professor, MBA, Murray State University, 2011, MS, Southern Illinois University, 2007
Smith, Robert William, Associate Professor, MAE, Marian University, 2009
Stone, Abby L, Assistant Professor, BS, Indiana Wesleyan University, 2013
Wilkinson, Daniel M, Professor, MM, Western Kentucky University, 1984
Wilson, Ted H, Professor, MA, Baylor University, 1983
Wingate, Matthew, Instructor, BSN, American Military University, 2015
Worley, Brenda, Instructor, EdD, Northcentral University, 2019
Young, Alissa L, Professor, EdD, University of Kentucky, 2013, MS, Murray State University, 1993
Zienman, Stuart David, Associate Professor, AAS, KCTCS - Hopkinsville Community College, 2006
Mission Statement/Status of Accreditation

Mission
Jefferson Community and Technical College transforms lives and communities through educational excellence in an inclusive environment that opens doors for all students.

Values
Academic Excellence. We strive to excel in teaching, learning, and student support. We engage in ongoing professional development to learn, grow, and improve.

Accessibility. We minimize barriers and provide educational pathways to technical and career training, general education and transfer, workforce development, and lifelong learning. To meet the diverse needs of our students we offer certificates, diplomas, associate degrees, and non-credit programming.

Collaboration. We build alliances with adult education providers, secondary school systems, regional postsecondary institutions, community groups, and business and industry partners to create seamless educational experiences. We are responsive and adaptable to the evolving needs of our students and community.

Continuous Improvement. We gather, analyze, and assess data to make informed decisions that drive institutional improvement.

Diversity. We treasure the many identities and perspectives in our community. We provide an inclusive, accessible, and safe learning and working environment that fosters participation and belonging.

Equity. We emphasize policy and practice that promotes opportunity and diminishes disparity within the college community.

Integrity. We act ethically and maintain an environment that encourages honesty, transparency, and accountability.

Respect. We recognize the contributions and expertise of all members of the college community. We understand that education relies on human connections, and we value the dignity and wellbeing of all people.

Stewardship. We exercise responsible management of the college’s fiscal and physical resources.

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.

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)
- Automotive Technology (C, D, A)
- Aviation Maintenance Technology (C, D, A)
- Business Studies:
  - Administrative Office Technology (C, D, A)
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D)
  - Computer Aided Design and Drafting (C, D)
  - Computer and Information Technologies (C, A)
  - Computerized Manufacturing and Machining (C, D)
  - Construction Technology (C, D)
- Cosmetology (C, D)
- Criminal Justice (A)
- Culinary Arts (C, A)
- Education (A)
- Emergency Medical Services – Paramedic (C, A)
- Emergency Medical Technician (C)
- Engineering and Electronics Technology (C, D, A)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Geospatial Technology (C)
- Global Studies (C)
- Health Information Technology (C, A)
- Health Science Technology (A)
- Historic Preservation Technology (C)
- Human Services (C, A)
- Industrial Chemical Technology (A)
- Insurance and Risk Management (C)
- Interdisciplinary Early Childhood Education (C, A)
- Invasive Cardiology (C)
- Manufacturing Industrial Technology:
  - Electrical Technology (C)
  - Industrial Maintenance Technology (C, D, A)
- Mechatronics (C)
- Medical Administrative Services (C)
- Medical Assisting (C, D, A)
- Medical Laboratory Technology (C, A)
- Multi-skilled Systems Technician (C)
- Nursing (A)
- Occupational Therapy Assistant (A)
- Pharmacy Technology (C, D)
Physical Therapist Assistant (A)  
Plumbing Technology (C, D)  
Practical Nursing (C, D)  
Radiography (A)  
Respiratory Care (C, A)  
Surgical Technology (D, A)  
Truck Driver-Training (C)  
Unmanned Systems Technology (C)  
Visual Communication:  
Communication Arts Technology (C, A)  
Multimedia (C)  
Printing (C, D)  
Visual Arts (C)  
Welding Technology (C, D, A)
White, Deborah C, Professor, MSN, University of Kentucky, 1982
Wilburn, Mark S, Professor, PhD, Ohio University, 1987
Wilkerson, Andrew, Assistant Professor, MS, University of Nebraska, 2010
Williams, Lawrence, Instructor, Instructor, PhD, Capella University, 2013
Williams, Sheree Huber, Professor, MLS, University of Kentucky, 1981
Wright, Mark, Professor, MEng, University of Louisville, 1992
Yocum, Heather L, Assistant Professor, MA, Northern Kentucky University, 2010
Young, Tiffany, Instructor, M.A., English, Florida State University, 2007

Correctional Sites

Green River*
Edelen, Cathy L, Associate Professor, MA, Murray State University, 1983
Piper, Sherry A, Professor, MA, Western Kentucky University, 1998

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

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

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

Pewee Valley (KCIW)*

West Kentucky*
Herring, Steven M, Associate Professor, MS, Murray State University, 1999
Walker, Margaret, Assistant Professor, BA, Murray State University, 1992

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

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

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

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

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

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

Advanced Integrated Manufacturing (C)
Advanced Integrated Technology (C, A)
Agriculture (C, D, A)
Air Conditioning Technology (C, D, A)
Automotive Technology (C)
Biomedical Technology Systems (A, C)
Business Studies:
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D, A)
  Supply Chain Management (C)
Certified Medical Technician (C)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (A)
Criminal Justice (C, A)
Emergency Medical Services – Paramedic (C, A)
Energy Management (C, D, A)
Engineering Related – Project Lead the Way (PLTW) (C)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Science Technology (A)
Health Care Specialist (C)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  Electrical Technology (C, D, A)
Medical Laboratory Technology (C, D, A)
Mining Technology (C, A)
Nursing Integrated (C, D, A)
Occupational Therapy Assistant (A)
Paralegal Technology (C, A)
Physical Therapist Assistant (A)
Radiography (A)
Respiratory Care (A)
Social Media Marketing (C)
Surgical First Assisting (C, A)
Surgical Technology (C, D, A)
Truck Driving Training (C)
Unmanned Systems Technology (C)
Welding Technology (C, D, A)

Contact Information

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

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

ACE2 and Assessment Center
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** (270) 824-8643
**Business Office** 1-855-55GO-MCC (1-855-554-6622)
**Workforce Solutions** (270) 824-8659
**Continuing Education** (270) 824-8660
**Disability Services** (270) 824-1708
**Financial Aid** 1-855-55GO-MCC (1-855-544-6622)
**Human Resources** (270) 824-8649
**Library** (270) 824-1722
**Public Relations** (270) 824-8581
**Records and Registrar** (270) 824-8575
**Veterans Affairs** (270) 824-1708

**Website** madisonville.kctcs.edu

**Administration**

President
\[\text{Dr. Cynthia S. Kelley}\]

Provost
\[\text{Dr. R. Scott Cook}\]

VP, Quality Assurance & Administration
\[\text{Dr. Jonathan V. Parrent}\]

Chief Business Affairs Officer
\[\text{E. Ray Gillaspie}\]

Workforce Solutions
\[\text{Michael A. Davenport}\]

Grants, Planning, and Effectiveness
\[\text{David A. Schuermer}\]

Institutional Advancement
\[\text{Ragina D. Scott}\]

Public Relations Coordinator
\[\text{Matthew S. Luckett}\]

Division of Applied Technologies
\[\text{Christy S. Adkins}\]

Division of Arts & Humanities
\[\text{Tonia R. Gibson}\]

Division of Allied Health
\[\text{Marsha D. Woodall}\]

Division of Nursing
\[\text{M. Dawn Tillen}\]

Division of Mathematics and Sciences
\[\text{Natalie F. Cooper}\]

Division of Social and Behavioral Sciences

**Faculty**

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

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

Allen, Barton E, Assistant Professor, BS, Western Kentucky University, 2002

Allen, Clarissa E, Associate Professor, MA, East Tennessee State University, 2007

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

Bailey Archila, Amberly Brooke, Associate Professor, MA, Murray State University, 2009

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

Bidwell, Jeffrey L, Professor, MA, Murray State University, 1999

Burton, Misty Y, Associate Professor, BS, Eastern Kentucky University, 1995

Clayton, Wendy Dall, Professor, MSN, Western Kentucky University, 2008

Cook, Ava M, Associate Professor, MSN, Northern Kentucky University, 2014

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

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

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

Davis, Sharon D, Associate Professor, MA, University of Kentucky, 1993

Davis, Timothy F, Professor, MS, Murray State University, 2013

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

Deal, Robert Michael, Associate Professor, MS, Western Kentucky University, 2017

Duncan, April M, Instructor, BS, Western Kentucky University, 2012

Edens, Kellie Brooke, Associate Professor, DNP, Eastern Kentucky University, 2017

Elder, Loretta J, Associate Professor, DNP, Eastern Kentucky University, 2016

Florea, Jeffrey M, Professor, MS, Murray State University, 2000

Florea, Katrina M, Associate Professor, MS, Murray State University, 1999

Fouse, Patricia F, Assistant Professor, MA, Murray State University, 2007

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

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

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

Gibson, Molly E, Associate Professor, MPA, Western Kentucky University, 2008

Gibson, Tonia R, Professor, MS, Murray State University, 2008

Gooch, Joe T, Professor, MA, University of Indiana, 1966

Grace, April M, Professor, MA, Western Kentucky University, 2005

Hayes, Kelly A, Professor, MS, Murray State University, 2014

Hernandez-Stevenson, Brittny, Assistant Professor, MS, Murray State University, 2013

Howell, Sherry D, Professor, MEd, University of Louisville, 1993

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

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

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

Jones, Sara Jane, Associate Professor, DNP, Eastern Kentucky University, 2016

Latham, Dawn L, Associate Professor, MSN, Western Kentucky University, 2015

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

Lear, Tracie D, Associate Professor, MSN, Northern Kentucky University, 2014

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

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

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

Luckett, Matthew S, Associate Professor, MS, Western Kentucky University, 2017

Lutz, Rebecca Faith, Associate Professor, DNP, Northern Kentucky University, 2017

Markwell, Greshin M, Assistant Professor, MSN, Western Governors University, 2014

Martin, Timothy S, Assistant Professor, M-DIV, Liberty University, 2016

McClearn, Nancy J, Professor, MA, Murray State University, 1997

Melton, Chandy D, Associate Professor, MA, Murray State University, 2000

Mitchell, Judith A., Associate Professor, MSN, Western Kentucky University, 2015

Modestou, Modestos, Assistant Professor, MS, Murray State University, 2016

Morris, Aaron D, Instructor, AAS, Madisonville Community College, 2011

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

Payton, Amanda L, Instructor, BIS, Murray State University, 2017

Qualls, Mary Kim, Associate Professor, DOT, Eastern Kentucky University, 2016

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

Schnapf, Barbara A, Assistant Professor, MS, University of Evansville, 1997

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

Siddon, Tina M, Professor, MS, Murray State University, 2014

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

Sinopoli Bascom, Paula J, Lecturer, MS, University of Southern Mississippi, 1996

Skeen, Amanda F, Associate Professor, MPT, University of Evansville, 2003

Talukdar, Asem, Associate Professor, PhD, University of Cincinnati, 2008

Taylor, Stephanie A, Professor, MAE, Western Kentucky University, 2013

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

Welch, Jennifer R, Associate Professor, MA, Western Kentucky University, 2009

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

West, Robin R, Associate Professor, PhD, Indiana State University, 2008

Woodall, Marsha Dianne, Professor, DNP, Eastern Kentucky University, 2016
Maysville Community and Technical College

Mission Statement/Status of Accreditation
Maysville Community and Technical College (MCTC) challenges learners to accomplish their educational, career, and personal development goals.

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

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

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 Integrated Technology (C)
Advanced Nursing Assistant (C)
Air Conditioning Technology (C, D)
Automotive Technology (C, D)
Business Studies:
  Administrative Office Technology (C, D, A)
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D, A)
Computer Aided Drafting & Design (C)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D)
Criminal Justice (C, A)
Culinary Arts (C, A)
Diesel Technology (C, D)
Emergency Medical Services – Paramedic (C)
Emergency Medical Technician (C)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Horticulture (C, D)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  Electrical Technology (C, D)
  Industrial Maintenance Technology (C, D, A)
Medical Assisting (C, D)
Medical Laboratory Technology (C, A)
Nursing (A)
Plumbing Technology (C, D)
Practical Nursing (C, D)
Respiratory Care (A)
Unmanned Systems Technology (C)
Welding Technology (C, D)
Workplace Safety Specialist (C)

Contact Information

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

Rowan Campus
400 Rocky Adkins Tech Drive
Morehead, KY 40351
(606)783-1538
maysville.kctcs.edu

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

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

Additional Sites

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

General Information (606) 759-7141
Admissions Ext. 66185
Business Office 1-855-GO-9MCTC (1-855-469-6282)
Workforce Solutions Ext. 66120
Continuing Education Ext. 66120
Disability Services Ext. 66209
Financial Aid 1-855-GO-9MCTC (1-855-469-6282)
Human Resources Ext. 66119
Library Ext. 66206
Public Relations Ext. 66247
Records Ext. 66184
Transfer Information Liaison Ext. 66148
Veterans Affairs Ext. 66196
Website maysville.kctcs.edu

Rowan Campus

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

Licking Valley Campus

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

Administration

President/CEO Stephen M. Vacik, Ed.D.
Rowan Campus Director Russ Ward
Provost Thomas Ware, Ed.D
Chief Finance Officer Barbara Campbell
Chief Operations Officer Russ Ward
Chief Officer of Enrollment & Student Services Jessica Kern
Licking Valley Campus Branch Campus Director Lori Gauce
Montgomery Campus Education Center Director Rebecca Morton
Director, Institutional Advancement Cara Clarke
Director, Marketing and Public Relations Brandy Shultz
Division of Industrial Technologies Tony Wallace
Division of Liberal Arts and Education Alex Hyrcza
Division of Math, and Natural Science Angela Fultz, Ph.D.
Division of Health Science Technologies Debbie Nolder
Division of Business and Related Technologies Natasha Maddox
Coordinator, Distance Learning Rita Thomas
Coordinator, Dual Credit Emily Thurman

Associate Dean, Institutional Planning, Research, and Effectiveness Dana Calland, Ed.D.
Associate Dean, Academic Support Services; Transfer Coordinator Dana Calland, Ed.D.
Director, Adult Education/College Preparation Sherry Stacy
Director, Cultural Diversity Millicent Harding
Director, Financial Aid Sandy Power
Director, Human Resources Sandi Estill
Director, Information Technology Brett Cable
Director, Library Services Sonja Eads
Director, Workforce Solutions Brittany Corde
Registrar Lori Gauce

Faculty

Adler, Jennifer, Instructor, MS, Eastern Kentucky University, 2010
Alburg, Tammy, Instructor, MA, Morehead State University, 1994
Barnett, Allie, Instructor, BSN, Palm Beach Atlantic University, 2012
Barnett, Kelly, Instructor, AAS, Maysville Community College, 2012
Bishop, Melissa, Instructor, MA, Morehead State University, 2016
Boone, Deborah A, Associate Professor, BSN, University of Phoenix, 2009
Boyd, Tony, Associate Professor, MA, Morehead State University, 1989
Burns, Tammy B, Assistant Professor, AAS, Maysville Community College, 1988
Butler, Deanna J, Associate Professor, AAS, Morehead State University, 1981
Calland, Dana J., Professor, Ed.D, Grambling State University, 2007
Collins, Jeffrey L, Professor, BSN, Morehead State University, 2002
Carroll, Melissa L, Professor, MA, Morehead State University, 1999
Crabtree, Ashley, Instructor, BSN, Shepherd College, 2017
Curtis, Tina, Assistant Professor, MA, Northern Kentucky University, 2009
Dement, Elizabeth, Instructor, MA, Morehead State University, 2016
Eads, Sonja R, Professor/Library, 1, MLS, University of Kentucky, 1985
Flora, Charlene, Assistant Professor, BA, University of Tennessee, 2010
Fultz, Angela, Professor, PhD, University of Kentucky, 1996
Garrison, Janet L, Professor, MBA, University of Kentucky, 1992
Graves, Robert L, Professor, MA, Morehead State University, 1992
Greenfield, Dawn, Instructor, BSN, Indiana Wesleyan University, 2014
Haley-Rosser, Vicky, Assistant Professor, BSN, University of Kentucky, 1984
Hammer, Robert G, Professor, BS, Morehead State University, 1985
Hatton, David, Instructor, AAS, Maysville Community and Technical College, 2015
Hawkins, Adam, Assistant Professor, BS, Morehead State University, 2010
Hawkins, Jack, Assistant Professor, AAS, Maysville Community and Technical College, 2010
Hyrce, Alexander L, Professor, MA, Western Kentucky University, 1990
Jones, Gordon, Instructor, AAS, Maysville Community and Technical College, 1989
King, John E, Professor, AA, Morehead State University, 2007
Klee, John R, Professor, MHE, Morehead State University, 1977
Lawson, Tiffany, Instructor, BSN, Kentucky Christian University, 2010
Lightner, Rebecca S, Professor, MSN, Morehead State University, 1995
Lykins, Charles, Instructor, MA, Morehead State University, 2000
Maddox, Natasha, Assistant Professor, MBA, Morehead State University, 2013
May, Elena, Associate Professor, MA, Northern Kentucky University, 1990
Mays, Tara, Instructor, BSN, Morehead State University, 2014
McCleanhan, Christina, Instructor, MFA, Mills College, 2008
McDowell, Susan E, Professor, BSN, Morehead State University, 2003
McKinney, Dallas, Instructor, AAS, Morehead State University, 2010
McNutt, Mike, Instructor, BS, Morehead State University, 2009
Miller, John S, Associate Professor, BS, University of Kentucky, 1988
Moore, Brenda, Assistant Professor, MA, University of New York at Binghamton, 1988
Morris, Melanie J, Associate Professor, BSN, University of Kentucky, 1991
Muenks, Martha J, Professor, MA, University of Kentucky, 1993
Napier, Jerry, Associate Professor, PhD, University of Kentucky, 1997
Netherly, Preston, AAS, Maysville Community College, 2014
Newton, Tyler, Instructor, AAS, Maysville Community College, 2012
Noble, Wendy, Professor, MA, Morehead State University, 2009
Nolder, Deborah B, Professor, Northern Kentucky University, 2005
Onderkirk, Jennifer, Instructor, AAS, Maysville Community and Technical College, 2011
Parker, Sally, Professor, BSN, College of Mt Saint Joseph on the Ohio, 1979
Pasley, Terry L, Professor, MA, Northern Kentucky University, 1998
Pecco, Nicholas, Associate Professor, BS Morehead State University, 2005
Peeff, Pamela, Instructor, AAS Nursing, Jefferson Community and Technical College, 1997
Perkins, Brandin, Professor, MS, Morehead State University, 2005
Porter, Matthew, Instructor, AAS, Maysville Community and Technical College, 2010
Prater, Mary Alice, Instructor, DPT, Arcadia University, 2017
Redden, Carla S, Assistant Professor/ Librarian II, MLS, University of Kentucky, 2009
Reeder, Diana L, Associate Professor, AAS, Morehead State University, 1979
Richardson, James, Instructor, MS, Oklahoma State University, 2015
Sears, Christopher M, Associate Professor, PhD, University of Wisconsin-Milwaukee, 2007
Sharp, Mary J, Professor, MS, Morehead State University, 1994
Sims, Rhonda Y, Professor, PhD, Walden University, 2014
Slone-Crumbie, Donna, Associate Professor, MA, University of Kentucky, 2008
Staviski, Sharon, Instructor, BS, Northern Kentucky University, 1990
Taylor, Carrie L, Associate Professor, MA, Northern Kentucky University, 2009
Thornberry, Tara C, Professor, MBA, Morehead State University, 1984
Thoroughman, Michelle, Instructor, BS, University of Kentucky, 2002
Vice, Marlene K, Professor, AA, Morehead State University, 2001
Walker, Melinda F, Associate Professor, MA, Morehead State University, 2004
Wallace, Tony L, Professor, BS, Morehead State University, 2007
Ward, Russell C, Professor, MA, Morehead State University, 1989
Weiss, Justin A, Associate Professor, MS, Marshall University, 2009
Whitten, Brianna C, Associate Professor, MA, Georgetown College, 2004
Wilson, Luanne, Instructor, BSN, Eastern Kentucky University, 1990
Wilson, Sharon G, Professor, MS, Auburn University, 1985
Wylie, Jeff B, Professor, MA, Morehead State University, 1977
Zanakis, Rena, Instructor, MA, Western Kentucky University, 2015
Zemba, Patrick, Instructor, AAS, Columbus State Community College, 1991

**Correctional Campuses**

East Kentucky Correctional Complex *

Cloud, Chalmer L, Professor, MS, Morehead State University, 1993
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 improve our community’s economic development and competitive advantage by providing high-quality, world-class learning experiences through career degree programs, workforce development, and transfer to baccalaureate degree programs.

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Transfer Curricula/Art Related

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

  - Theatre (A)
  - Visual Art (A)

Occupational/Technical Curricula

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

- Advanced Nursing Assistant (C)
- Agricultural Studies (D, A)
- Air Conditioning Technology (C, D, A)
- Automotive Technology (C, D, A)
- Business Communication (C)
- Business Studies:
  - Administrative Office Technology (C, A)
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, A)
- Computer and Information Technology (C, A)
- Computerized Manufacturing and Machining (C, D, A)
- Construction Technology (C)
- Criminal Justice (C, A)
- Diesel Technology (C, D, A)
- Emergency Medical Services – Paramedic (C, A)
- Emergency Medical Technician (C)
- Engineering and Electronics Technology (C, D, A)
- Engineering Related: Project Lead the Way (C)
- Financial and Customer Service (C)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Healthcare Facilities Leadership (C, D, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
- Medicaid Nurse Aide (C)
- Medical Assisting (C, D, A)
- Nursing (A)
- Pharmacy Technology (C)
- Radiography (C, A)
- Surgical Technology (C, A)
- Technical Theatre (C)
- Veterinary Technology (A)
- Welding Technology (C, D, A)

Contact Information

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

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

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

General Information

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

President
Chief Academic Officer
Chief Business Officer
Chief Information Technology Officer
Chief Institutional Officer
Chief Student Affairs Officer
Chief Workforce Solutions Officer
Interim Dean of Academic Affairs — Technical Programs
Interim Dean of Academic Affairs — General Education Programs
Dean of Student Affairs
Associate Dean of Business Affairs
Associate Dean of Nursing
Associate Dean of Advanced Manufacturing Technologies
Associate Dean, Humanities and Fine Arts
Associate Dean of Personal Services and Skill Trades
Associate Dean, Student Affairs, Cultural Diversity
Director, Marketing & Communications
Director, Public Safety
Director, Human Resources

Faculty

Abell, Donna, Professor/Librarian, MS, Florida State University, 2004
Achselbach, Matthew, Associate Professor, MA, San Diego State University, 2008
Ash, Angela, Associate Professor, EdD, Western Kentucky University, 2018
Basham-Edge, Zara, Professor, AAS, Owensboro Community and Technical College, 2013
Boarman, Keith, Associate Professor, Murray State University, 1999
Booker, Connie, Assistant Professor, MA, Western Kentucky University, 1997
Bowlds, Barry R, Professor, AAS, Western Kentucky University, 2003
Boyd, Michael, Professor, MBA, Southwest Missouri State University, 1987
Boyd, Vicki H, Professor, MA, Murray State University, 1981
 Branham, Matthew, Professor, MA, Morehead State University, 2000
Brown, Kathryn, Professor, MA, Western Kentucky University, 1994
Canales, Michael, Associate Professor, BS, DeVry University, 1987
Caplan, Geralyn M, Professor, EdD, Western Kentucky University, 2015
Clark, Robin, Instructor, BS, Western Kentucky University, 2016
Collins, Shannon Quinette, Professor, MA, Morehead State University, 2000
Crowe, Randy Keith, Professor, BS, Western Kentucky University, 1999
DePasquale, Donna, Associate Professor, MS, Western Kentucky University, 2013
Dick, Timothy T, Professor, PhD, University of Kentucky, 2002
Drane, Tabitha, Instructor, BSN, University of Louisville, 2012
Ebelhar, Bethany, Associate Professor, MSN, Murray State University, 2011
 Edwards, Lois M, Associate Professor, EdD, Western Kentucky University, 2005
Emby, Julie, Instructor, AA, Owensboro Community and Technical College, 2014
Ford, Constance R, Professor, DME, Indiana University, 1983
Gesser, Chad, Associate Professor, MA, Western Kentucky University, 1997
Gish, Misty, Professor, MS, Murray State University, 2001
Glenn III, Robert J, Professor, PhD, University of Southern Mississippi, 2009
Glenn, James H, Professor, EdD, University of Kentucky, 2001
Gore, Michael G, Professor, BS, Western Kentucky University, 2009
Hamilton, Cassandra, Associate Professor, MA, Western Kentucky University, 2003
Hammonds, Gary S, Associate Professor, AAT, Institute of Electronic Technology, 1986
Head Jr, Gerald M, Assistant Professor, MS, Western Kentucky University, 1995
Hehn, Monty J, Professor, MFA, Southern Illinois University - Carbondale, 1988
Higdon, F. Martin, Associate Professor, BS, Western Kentucky University, 2018
Hildreth, Daniel R, Associate Professor, MA, Southern Illinois University - Carbondale, 1982
Hoffman, Kathy, Associate Professor, MS, Catholic University of America, 1986
James, Walter, Associate Professor, AAS, Owensboro Community and Technical College, 2017
Johnson, Connie F, Associate Professor, MBA, Morehead State University, 2006
Johnson, James L, Professor, MA, Western Kentucky University, 1987, M.A.
University of Kentucky, 1998
Johnson, Ryan, Instructor, ASE Certification, 2016
Kobella, Peter, Associate Professor, MA, Matej Bel University, 1998
Leach, Eddie, Associate Professor, DVM, Auburn University, 1984
Lewis, Courtland, Associate Professor, PhD, University of Tennessee, 2012
Lutzel, John, Professor/Librarian IV, MLS, University of Southern Mississippi, 2004
Martin, David C, Professor, MS, Western Kentucky University, 2007
McDonough, Greta J, Professor, MSSW, Western Kentucky University, 1978
Mense, Nadine Joyce, Associate Professor, EdD, Western Kentucky University, 2015
Monsour, Matthew, Assistant Professor, MA, Saint Meinrad School of Theology, 2010
Morris, Edward J, Professor, PhD, Southern Illinois University, 1989
Morris, Kelly, Associate Professor, PhD, University of Kentucky, 2009
Moseley, Daniel Joe, Professor, BS, Western Kentucky University, 2008
Mowers, Kathleen A, Professor, MAT, Indiana University, 1975
Northenor, Tonya, Professor, MFA, University of Memphis, 1999
Obiade, Anthony, Associate Professor, PhD, Southern Illinois University, 2001
Payne, Justin, Associate Professor, AAS, Owensboro Community and Technical College, 2005
Payne, Shawn, Professor AAS, Owensboro Community and Technical College, 2007
Perkins, Micah W, Professor, PhD, University of Louisville, 2016
Peterson, Brock, Instructor, MPA, Western Kentucky University, 2012
Pippin, Madeline, Instructor, BSN, University of Louisville, 2014
Revlett, Kimberly, Instructor, ADN, Kentucky Wesleyan College, 2000
Rice, Tammy M, Associate Professor, MA, Western Kentucky University, 1984
Runyon, Carl R, Associate Professor, MA, University of Evansville, 1973
Ruth, Deborah L, Associate Professor, MA, Western Kentucky University, 1993
Saam, Amanda, Instructor, AAS, Somerset Community College, 2015
Schmitt, Theresa M, Professor, MBA, University of Akron, 1992
Siljander, Jacequeline, Assistant Professor, BS, Murray State University, 2009
Skaggs, Meredith, Associate Professor, EdD, Western Kentucky University, 2015
Stone, Larry G, Assistant Professor, Diploma, Owensboro Community and Technical College, 2000
Swanson, Susan, Professor MA, Western Kentucky University, 2007
Taylor, Eunice K, Professor, PhD, Capella University, 2015
Tudor, Michelle G, Associate Professor, AAS, Owensboro Community College, 2000
Wallace, Albert F, Professor, MBA, Xavier University, 1978
Wetzel, William F, Professor, PhD, Southern Illinois University - Carbondale, 1987
Wilson, Pamela S, Professor, MA, Southern Illinois University - Carbondale, 1995
Wood-Graesla, Vickey A, Associate Professor, AAS, Owensboro Community and Technical College, 2003
Wright, Frederick, Instructor, ASE Certification, 2012
Somerset Community College

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
- 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.

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

- Air Conditioning Technology (C, D)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, D)
- Aviation Maintenance Technology (C, D, A)
- Business Studies:
  - Business Administration Systems
  - Medical Information Technology (C, D, A)
- Certified Medical Technician (C)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D)
- Construction Technology (C, D)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Culinary Arts (C, D, A)
- Diesel Technology (C, D)
- Digital Printing Technology (C)
- Emergency Medical Services - Paramedic (C, A)
- Emergency Medical Technician (C)
- Engineering and Electronics Technology (C, A)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D, A)
- Masonry (C)
- Medical Assisting (C, D)
- Medical Laboratory Technology (C, A)
- Multi-skilled Systems Technician (C)
- Natural Gas Technology (C)
- Nursing (A)
- Pharmacy Technology (C, D)
- Physical Therapist Assistant (A)
- Practical Nursing (C, D)
- Radiography (C, A)
- Respiratory Care (A)
- Surgical Technology (C, A)
- Truck Driving Training (C)
- Visual Communication:
  - Design & Technology (C)
  - Multimedia (C, D, A)
  - Printing (C, D)
- Welding Technology (C, D)

Contact Information

Somerset Community College

SCC 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
141 College St.
Whitley City, KY 42653

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

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

SCC Casey Center
1 Pettyjohn St.
Liberty, KY 42539

General Information

General Information (877) 629-9722
Admissions/Records 1-855-66GO-SCC (1-855-664-6722)
Business Office 1-855-66GO-SCC (1-855-664-6722)
Career Services (606) 451-6657
Disability Services (606) 451-6706
Financial Aid 1-855-66GO-SCC (1-855-664-6722)
Human Resources (606) 451-6620
Institutional Advancement (606) 451-6618
Library/Learning Commons (606) 451-6710
Lineman Training Center (606) 451-6697
Marketing/Public Relations (606) 451-6618
Transfer Center (606) 451-6650
University Center of Southern Kentucky (606) 451-6730
Veterans Affairs (606) 451-6857
Workforce Solutions (606) 451-6692
Website somerset.kctcs.edu
Administration

President/CEO
Carey Castle, EdD
Senior Vice President of Academic Affairs
Clint Hayes, EdD
Vice President of Institutional Effectiveness
Bruce Gover, EdD
Vice President of Administration
Jill Meece
Vice President of Advancement
Cindy Clouse
Vice President of Operations
Larry Abbott
Vice President of Student Affairs
Tracy Casada
Dean of Health Sciences
Alesa Johnson
Dean of Arts and Sciences
Nancy Powell
Dean of Business and Applied Technology
Jon Burlew
Kevin Bradford

Faculty

Abner, Jeffery, Assistant Professor, BS, Eastern Kentucky University, 2015
Allen, Melinda J, Associate Professor, MA, Eastern Kentucky University, 1993
Anderson, Anita, Instructor, Liberty University
Asher, Jason, Associate Professor, MA, Lindsey Wilson College, 2010
Atkinson-Bigelow, Johnna, Professor, MA, University of Kentucky, 1988
Ballard, Linda K, Professor, EdD, Eastern Kentucky University, 2016
Barnes, Kelly J, Associate Professor, MS, Eastern Kentucky University, 2006
Beatty, Frances M, Associate Professor, AS, Eastern Kentucky University, 1986
Bell, Christopher, Instructor, AAT, Somerset Community College, 2001
Bentley, Shelia, Assistant Professor, MS, Eastern Kentucky University, 2009
Blevins, JoY, Professor, DNP, University of Kentucky, 2010
Bloomington, Michael S, Associate Professor, MA, Eastern Kentucky University, 2005
Bowling, Victoria, Instructor, MSN, Capella University, 2018
Bradley, Daniel A, Associate Professor, MA, Morehead State University, 2007
Bridgman, Pamela S, Professor, MS, Capitel College, 1999
Brook, Brandy, Associate Professor, BS, Eastern Kentucky University, 2013
Brown, Eddie, Associate Professor, AAS, Somerset Community College, 2003
Bryoles, Angela W, Associate Professor, MS, Eastern Kentucky University, 1999
Burton, Cindy, Associate Professor, BFA, American Intercontinental University, 2009
Byrd, Cynthia G, Instructor, MAEd, Eastern Kentucky University, 1986
Calcattera, Carol L, Associate Professor, MBA, Eastern Kentucky University, 1993
Cash, Curtis F, Professor, MA, Union College, 2007
Chadwell, Clevern, Associate Professor, AAS, Somerset Community College, 2007
Childress, Margaret L, Associate Professor, MBA, Morehead State University, 2008
Cleberg, Kimberle S, Associate Professor, MA, Eastern Kentucky University, 2001
Cleberg, Steven F, Professor, MFA, University of Portland, 1982
Colley, David A, Associate Professor, MS, Eastern Kentucky University, 2015
Conaway, Vicki L, Professor, MSN, University of Kentucky, 1984
Deaton, Eric D, Associate Professor, MS, Eastern Kentucky University, 1997
Decker, Doyle, Assistant Professor, MA, California State University, 2010
Doobs, Billy W, Associate Professor, MS, University of Kentucky, 1994
Duvall, Billie, Associate Professor, MSN, Eastern Kentucky University, 2012
Eastham, Donna S, Professor, M.A.Ed., Western Kentucky University, 1994
Eastham, Tamara K, Instructor, MSN, Eastern Kentucky University, 2006
Elam, Debra L, Associate Professor, AS, Somerset Community College, 2014
Farmer, Adam, Assistant Professor, BS, Berea College, 2004
Feldman, Samantha, Assistant Professor, BS, Eastern Kentucky University, 2004
Flynn, Lynsey R, Instructor, MSN, Western Kentucky University, 2016
Franklin, Tracey, Assistant Professor, BA, Midway College, 2014
Fries, Wanda F, Professor, MFA, Bennington College, 1986
Fugate, Dena, Instructor, AAS, Somerset Community College, 2009
Gadd, Belinda P, Associate Professor, MA, Eastern Kentucky University, 2002
Gadd, Susan G, Professor, MS, University of Kentucky, 1989
Gammage, Simeon D, Associate Professor, AAS, Somerset Community College, 2010
Gaskin, Tom P, Associate Professor, MS, Eastern Kentucky University, 2007
Goleman, Michael J, Associate Professor, PhD, Mississippi State University, 2010
Graham, Gerald M, Associate Professor, AAS, Somerset Community College, 2000
Graves, Heather, Instructor, BS, Northern Kentucky University, 2018
Greene, Charles D, Instructor, BS, Eastern Kentucky University, 2017
Grover, Alyce A, Professor, MA, Southwest Missouri State University, 1989
Hammons, John S, Professor, DPT, Shenandoah University, 2006
Harris, James Ricky, Associate Professor, AAS, Somerset Community College, 2007
Harris, Jeffrey D, Professor, MA, Eastern Kentucky University, 1998
Hawk, Jillisa D, Instructor, MSN, Eastern Kentucky University, 2008
Hewitt, John, Associate Professor, MSN, Western Kentucky University, 2016
Hinkle, Teresa, Assistant Professor, MS, Eastern Kentucky University, 2010
Howe, Ashley, Instructor, BSN, Northern Kentucky University, 2017
Hoskins, Jess, Associate Professor, BA, Eastern Kentucky University, 1975
House, Debra J, Professor, MS, University of Kentucky, 1994
Hove, Julie M, Associate Professor/Librarian, MSLS, University of Kentucky, 2010
Huffaker, Lorra S, Professor, MSN, Eastern Kentucky University, 2003
Huntsman, Mary Taylor, Professor/Librarian, MA/MSLS, University of Kentucky, 1994
Jacques, Kenneth R, Professor, MBA, Ball State University, 1987
Johnson, Kelly, Associate Professor, MA, Eastern Kentucky University, 2003
Kelgore, April L, Professor, PhD, University of Kentucky, 1994
Land, Kimberly, Instructor, AAS, Temple College, 1999
Larason, Irene J, Associate Professor, MA, National University, 2010
Lawless, Gary W, Instructor, AAS, Somerset Community College, 2017
Lewis, Kathy S, Professor, MS, Eastern Kentucky University, 1994
Logan, Donna L, Professor, MA, Eastern Kentucky University, 1997
Macx, Ronald W, Associate Professor, MA, Morehead State University, 1984
Martin, Ruth S, Professor, DNP, Western Kentucky University, 2017
Martinez, George M, Professor, MS, Murray State University, 1991
Matika, Richard S, Associate Professor, EdD, University of Kentucky, 2012
McClendon, Steven S, Associate Professor, EdD, University of the Cumberlands, 2012
McQueen, Travis, Professor, MS, Eastern Kentucky University, 2001
Meade, Ronald L, Professor, DPT, Shenandoah University, 2006
Meier, Tina M, Instructor, AAS, Somerset Community College, 2010
Merritt, Lorrenda D, Instructor, BA, Eastern Kentucky University, 2005
Metcalfe, Virginia E, Associate Professor, MS, Eastern Kentucky University, 2002
Mills, Angela N, Associate Professor, BS, Northern Kentucky University, 2014
Mills, Craylon T, Associate Professor, PhD, Capella University, 2015
Morris, Amanda K, Associate Professor, MA, University of Kentucky, 2009
Musa, Dana, Professor, MS, University of Kentucky, 1998
Nazario, Eduardo, Assistant Professor, AS, Sullivan University, 2005
Noel, Megan, Instructor, AAS, Somerset Community College, 2011
Null, George Curtis, Assistant Professor, AAS, Lexington Electronic Institute, 1995
Osborne, Roger, Professor, MA, University of Louisville, 2002
Owens, Jennifer, Associate Professor, AAS, Somerset Community College, 2008
Peterson, Betty W, Professor, MA, University of Kentucky, 1986
Phipps, David A, Associate Professor, AAS, Somerset Technical College, 2004
Phipps, Devin, Associate Professor/Librarian, MSLS, University of Kentucky, 2011
Phillips, Christopher M, Professor, EdD, University of Kentucky, 2011
Pierce, Christopher A, Associate Professor, BS, University of Kentucky, 2003
Powell, Nancy L, Professor, M.A.Ed., Eastern Kentucky University, 1987
Poyner, Carol A, Associate Professor, MSN, Eastern Kentucky University, 2014
Ramilo, Celia A, Associate Professor, PhD, Washington State University, 1996
Randall, Marc B, Associate Professor, MA, Ed., Eastern Kentucky University, 2011
Ratliff, Donna R, Professor, M.A.Ed., Eastern Kentucky University, 1999
Roberts, Laura E, Associate Professor, BSN, Eastern Kentucky University, 1991
Shearer, Elizabeth, Professor, MA, Western Kentucky University, 1988
Sherlet, Billie J, Professor, DNF, Eastern Kentucky University, 2017
Sherman, Gary J, Professor, MS, University of Wyoming, 1979
Simpson, William Stuart, Professor, MS, Eastern Kentucky University, 2004
Spencer, Robert T, Professor, MA, Eastern Kentucky University, 1993
Starnes, John H, Associate Professor, PhD, University of Kentucky, 2013
Stephens, Erin, Associate Professor, MA, Eastern Kentucky University, 2007
Stringer, Gail S, Professor, MS, Eastern Kentucky University, 1989
Sumner, Stephanie, Instructor, University of the Cumberlands, 2015
Swanner, Regina K, Professor, BS, Eastern Kentucky University, 2007
Taylor, Guy E, Instructor, BS, University of Kentucky, 1981
Taylor, James H, Associate Professor, MA, Eastern Kentucky University, 2002
Thacker, James, Instructor, AAS, Somerset Community College, 2018
Thomas, Brandi W, Professor, MS, Eastern Kentucky University, 2001
Thomas, Janice E, Associate Professor, MSN, Eastern Kentucky University, 2008
Tinch, James E, Assistant Professor, AAT, Somerset Technical College, 2000
Toby, Kimberly L, Associate Professor, MS, University of Kentucky, 1998
Upchurch, Joni M, Associate Professor, BS, Eastern Kentucky University, 2016
Ware, Lisa N, Associate Professor, MAEd, Eastern Kentucky University, 2010
Waterstrat, Amanda J, Associate Professor, PhD, University of Kentucky, 2009
Watson, Karl D, Professor, BS, Eastern Kentucky University, 2002
Watters, Tammy R, Associate Professor, BSN, Eastern Kentucky University, 2015
Weatherford, Megan, Instructor, MA, Western Kentucky University, 2013
Wells, Michael, Assistant Professor, BS, Indiana Wesleyan University, 2013
Westerfield, Mary Jo, Instructor, ASN, Eastern Kentucky University, 1991
Wheet, Dee, Assistant Professor, BSN, Eastern Kentucky University, 2017
Wilson, Jennifer K, Professor, MSN, Eastern Kentucky University, 2000
Wooldridge, Eric N, Professor, BS, University of Kentucky, 2001
Xia, Zhiming, Associate Professor, MS, University of Mississippi, 1999
Mission Statement/Status of Accreditation

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

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

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

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

Contact Information

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Off Site Locations

Glasgow Campus
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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

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Denna White

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Brian Becker

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Jennifer Noble

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(270) 901-1033
Dr. Kim Myers

Assessment & Testing
(270) 901-1036
Elaine Yates

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Sherita Clark

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1-855-246-2482
Jennifer Wells

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(270) 901-1115
Sherri Forester

Institutional Advancement
(270) 901-1116
Heather Rogers

Library
(270) 901-1155
Janice Gabbard

Public Relations
(270) 901-1117
Mark Brooks
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
Interim Vice President of Student and Organizational Success
Brooke Justice
Vice President of Finance and Administration
Chris Cumes
Vice President of Outreach and Community Development
Dr. James McCailn
Executive Director of KYCTC Foundation & Vice President of Advancement
Heather Rogers
Director of Human Resources
Sherri Forester

Deans
Academic Services
Lisa Hunt
Interim Arts and Humanities
Lisa Hunt
Advanced Manufacturing Technologies
Dr. Gene Basil
Interim Business
Chris Royse
Interim Allied Health and Nursing
Dr. Angie Harlan
Mathematics and Sciences
Dr. Jennifer Shoemake

Faculty
Adams, Elizabeth C, Associate Professor, MA, Western Kentucky University, 2012
Adams, Jessica L, Associate Professor, MS, Murray State University, 2001
Bayer, Jessica, Assistant Professor, MS, Southern Illinois University, 2007
Banks, Deborah P, Assistant Professor, MA, Western Kentucky University, 2006
Beagle, Gary W, Associate Professor, MA, Western Kentucky University, 1995
Bourque, Brittany, Associate Professor, BSN, Western Kentucky University, 2001
Bradford, Jocelyn, Associate Professor, BS, Western Kentucky University, 2006
Case, Joseph C, Associate Professor, MA, Trevecca Nazarene University, 2011
Cassidy, Scott, Instructor, MS, Florida State University, 1995
Combs, Rex Allen, Professor, MS, Western Kentucky University, 2007
Conner, Rebecca E, Assistant Professor, Ph.D. Texas Woman’s University, 1996
Dent, Julie G, Instructor, MBA, University of Kentucky, 1997
Dowell, Ryan, Instructor, University of Kentucky, 2016
Eadens, Brian, Assistant Professor, BS, Western Kentucky University, 2012
Ellis, Claudean, Assistant Professor, MA, Nova Southeastern University, 2005
Embry, Amy B, Instructor, DC, National University of Health Science, 2007
Faine, John B, Associate Professor, MS, Northern Kentucky University, 2006
Finley, Joseph Lynn, Professor, MS, University of Kentucky, 2002
French, Esther G, Assistant Professor, MA, University of Southern Mississippi, 2005
Florence, Christina M, Associate Professor, MA, Western Kentucky University, 2012
Fose, Jacob F, Instructor, MS, Western Kentucky University, 2013
Fose, Margaret R, Associate Professor, MA, Western Kentucky University, 2012
Galloway, Angela M, Associate Professor, MS, University of Kentucky, 2005
Gardner-Palmer, Jali M., Instructor, MS, Western Kentucky University, 2014
Gaskins, Carmen C, Professor, MS, Western Kentucky University, 1994
Gentry, Traci, Professor, MSN, Western Kentucky University, 2011
Gibbons, Jacqueline R, Instructor, MS, Western Kentucky University, 2011
Gilbert, Bobby R, Assistant Professor, MSN, Western Kentucky University, 2010
Gilpin, Rachel, Assistant Professor, MSN, Western Kentucky University, 2009
Gooden, Chloe, Instructor, MA, The University of Alabama, 2013
Grant, Brayden, Instructor, MAcc, Western Kentucky University, 2014
Greer, Michael, Associate Professor, AA, Bowling Green Technical College, 2012
Harlan, Angela K, Professor, DNP, Northern Kentucky University, 2016
Harris, Patricia A, Instructor, MBA, Western Kentucky University, 1999
Hatcher, Steve A, Professor, BS, Western Kentucky University, 2011
Houchens, Charles D, Professor, MS, Western Kentucky University, 2009
Hunt, Jon D, Professor, AAS, Bowling Green Technical College, 2006
Insoo, Tammy, Instructor, AAS, Southcentral Community and Technical College, 2009
Jeter, Chris, Assistant Professor, BIS, Western Kentucky University, 2009
Jones, Charles D, Associate Professor, MA, Savannah College of Art and Design, 1990
Keel, Sue, Assistant Professor, MSN, Western Kentucky University, 2015
Kennedy, Barry A, Associate Professor, MA, Western Kentucky University, 2003
King, Brian D, Instructor, AAS, Southcentral Kentucky and Community Technical College, 2014
Kirby, Matthew R, Instructor, MFA, Western Kentucky University, 2015
Laupheimer, Tonya S, Instructor, MA, Western Kentucky University, 2011
LeFevre, Katheyna A, Associate Professor, MS, University of Kentucky, 2007
McFadden, Art A, Instructor, BS, Western Kentucky University, 1995
McKenney, Ken D, Associate Professor, BS, Western Kentucky University, 2014
Moore, Wendy B., Associate Professor, MSN, Western Kentucky University, 2006
Moorman, John K, Assistant Professor, BS, Western Kentucky University, 1997
Moss, Timothy, Instructor, AAS, Southcentral Kentucky Community and Technical College, 2012
Mulally, Aaron T., Assistant Professor, MA, The College of Saint Scholastica, 2007
Norrod, Amy Paige, Associate Professor, BS, Mid-Continent University, 2008
Otto, Kimberly D, Associate Professor, MA, Western Kentucky University, 2006
Papalouca, Loucas, Professor, MS, Western Kentucky University, 1989
Patel, Virendrakumar Anikumar, Associate Professor, MA, Eastern Kentucky University, 2010
Pennycook II, Donald B, Associate Professor, MS, Western Kentucky University, 2007
Peyton, Natassia L, Assistant Professor, MSN, Western Kentucky University, 2016
Pharris, Kimberly, Assistant Professor, MSN, Western Kentucky University, 2016
Phelps, Jeffery W, Professor, BS, Western Kentucky University, 2000
Poteet, Bruce D., Assistant Professor, MA, Western Kentucky University, 2004
Proffitt, Jessica, F, Associate Professor, BSN, Western Kentucky University, 2012
Purpus, Carmen E, Assistant Professor, MPA, Western Kentucky University, 2007
Rhodes, Lisa, Instructor, MA, Western Kentucky University, 1993
Richardson, Merrie, R, Instructor, MS, Western Kentucky University, 2014
Shive, April, Professor, MSN, Western Kentucky University, 2011
Slaughter, Lori A, Professor, MA, Western Kentucky University, 2010
Smith, Shellenia R, Associate Professor, MA, Eastern Kentucky University, 2011
Sparks, Richard B, Professor, BS, University of Kentucky, 2003
Stephens, Jeremy, D, Associate Professor, AAS, Bowling Green Technical College, 2010
Tackett, Kristina, Associate Professor, MS, Western Kentucky University, 2009
Taylor, Beau H, Instructor, AS, Southcentral Kentucky Community & Technical College, 2013
Taylor, Michael O, Professor, BA, Western Kentucky University, 1972
Turner, James R, Assistant Professor, MA, Western Kentucky University, 1972
Turner, Kerry S, Associate Professor, AAS, Bowling Green Technical College, 2008
Varney, Bertena, Associate Professor, MA, Morehead State University, 1998
Waggoner, Constance, J, Associate Professor, MS, Capella University, 2005
Ward, Teresa Y, Assistant Professor, MS, Troy University, 1983
Watkins, Renea, Instructor, BSN, Western Kentucky University, 1999
Wendt, Leah D, Associate Professor, MA, California State Polytechnic University, 2003
West, Jared, D, Assistant Professor, AAS, Southcentral Kentucky Community and Technical College, 2006
White, Renee, Associate Professor, PhD, University of Louisville, 2003
Williams, Thomas W, Associate Professor, MA, Western Kentucky University, 2007
Wilkins, Diane A, Professor, MA, University of Kentucky, 1999
Wolters, Rachel M, Instructor, PhD, Southern Illinois University, 2017
Youngquist, Sherry W, Assistant Professor, MA, Western Kentucky University, 1997
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)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, D)
- Broadband Technology (C)
- Business Communications (C)
- Business Foundations (C)
- Business Studies:
  - Business Administration Systems (C, A)
  - Medical Information Technology (C, D)
  - Computer Aided Drafting and Design (C, D)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D)
- Construction Technology (C, D)
- Criminal Justice (C, A)
- Diesel Technology (C, D, A)
- Education (A)
- Emergency Medical Services – Paramedic (C)
- Emergency Medical Technician (C)
- Engineering Related – Project Lead the Way (PLTW) (C)
- Engineering and Electronics Technology (C, D)
- General Occupational/Technical Studies (A)
- Health Care Foundations (C)
- Human Services (C)
- Interdisciplinary Early Childhood Education (C)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D)
- Medical Assisting (C, D)
- Medical Laboratory Technology (C, A)
- Mining Technology (C)
- Nursing (A)
- Nursing – Academic/Career Mobility (D)
- Physical Therapist Assistant (A)
- Practical Nursing (C)
- Professional Craft: Pottery (C)
- Radiography (C, A)
- Respiratory Care (A)
- Social Media Marketing (C)
- Surgical Technology (D, A)
- Surveying & Mapping Technology (C)
- Telehealth Technician Associate (C)
- Welding Technology (C, D)
- Workplace Safety Specialist (C)

Contact Information
Southeast Kentucky Community and Technical College
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Harlan Campus
164 Ball Park Road
Harlan, KY 40831
(606) 573-1506

Middlesboro Campus
100 College Road
Middlesboro, KY 40965
(606) 242-2145

Pineville Campus
10350 South US 25E
Pineville, KY 40977
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Whitesburg Campus
2 Long Avenue
Whitesburg, KY 41858
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General Information

Academics: Kevin Lambert
Admissions: Felicia Carroll
Bookstore: Stephanie Jenkins
Business Affairs: Sandy Mayes
Director of Advising: Sherry Tinsley
Disability Services: Michael Ingram
Financial Aid: Barbara Gent
Human Resources: Billie Franks
Library: Lynn Cox
Marketing: Shawn Lind
President’s Executive Assistant: Paul Bryant
Public Relations: Amy Simpson
Recruiting: Kim Maynard
Registration/Records: Anita Barnhill
Transfer/Career Information Liaison: Joe Sutton
Veterans Affairs: Kim Hobbs
Website: southeast.kctcs.edu
Workforce Solutions: Sherri Clark

Administration

President/CEO: Dr. Michelle Dykes-Anderson
Vice President of Academic Affairs Officer: Kevin Lambert
Vice President of Student Affairs Officer: Elijah Buell
Vice President of Cultural Diversity Officer: Deborah Young
Vice President of Institutional Advancement Officer: Merrill Galloway
Vice President of Business Affairs Officer: Dr. Joel Michaels
Associate Dean of Academic Affairs: Dr. Rebecca Parrott
Campus Director Cumberland & Harlan Campus: Dr. Rebecca Parrott
Campus Director Middlesboro & Pineville Campus: Deborah Young
Chief Information Technology Officer: Billie Franks
Director of Academic Support: Dr. Carolyn Sundy
Director of Human Resources: Cathy Ditty
Director of Marketing: Peggy Conklin
Director of Operations: Elijah Buell
Director of Public Relations: Kevin Lambert
Director of Safety and Security: Joseph Johnson
Director of Workforce Solutions: Peggy Conklin
Division of Allied Health and Related Technologies/Nursing: Michael S. Good
Division of Business and Technical Studies: Ronnie Daniels
Division of Humanities and Social Sciences: Conklin
Division of Industrial Technology: Ronnie Daniels
Division of Natural Science, Mathematics & Related Technologies: Joseph Johnson

Faculty

Abrams, Emily, Instructor, BS, King University, 2014
Ahlstedt, Lisa A, Librarian I, MS, University of Tennessee, 1995
Awook, Ruthellen, Instructor, BSN, University of the Cumberlands, 2017
Bargo, Glenna, Associate Professor, MSN, Eastern Kentucky University, 2008
Barrick, Lisa, Assistant Professor, MEd, Lincoln Memorial University, 2010
Blanton, Scott, Professor, MSN, Northern Kentucky University, 2011
Bowling, Kenneth N, Professor, BS, Union College, 2003
Bowling, Tracy, Professor, PT, DPT, University of Kentucky, 2010
Bowling, Roger A, Professor, MS, Eastern Kentucky University, 2000
Brooks, Lana, Associate Professor, MSN, Western Kentucky University, 2014
Buell Jr, Elijah, Professor, MBA, Morehead State University, 1980
Burnside, Patricia, Professor, MAEd, Tusculum College, 2007
Carmack, Michael E, Professor, AAS, Harlan Regional Technology Center, 1995
Chapman, Tamnie, Professor, MA, Cumberland College, 1995
Clatts, David W, Professor, EdD, Liberty University, 2010
Collier, William G, Professor, MA, Eastern Kentucky University, 1992
Conklin, Peggy, Professor, MA, Morehead State University, 1985
Conover, Edwin Wheeler, Professor, PhD, Cincinnati, 1996
Cox, Donna, Associate Professor, MA, Union College, 1973
Cox, Lynn, Librarian I, MS, University of Kentucky, 1994
Creek, Rhonda L, Professor, MA, Morehead State University, 1996
Daniels, Ronnie W, Professor, BS, Eastern Kentucky University, 2000
Dingus, Ariel, Assistant Professor, MA, Middle Tennessee State University, 2012
Ditty, Kathy, Associate Professor, Med, Lindsey Wilson College, 2004
Dixon, Jill Suzanne, Associate Professor, DPT, University of Kentucky, 2011
Drum, Matthew, Assistant Professor, Ph.D., University of Louisville, 2010
Dyer, Bradley, Professor, M.S., Eastern Kentucky State University, 1999
Eldahan, Ismail A, Associate Professor, MS, American Sentinel University, 2008
Eldridge, Tracy, Assistant Professor, BS, Lincoln Memorial University, 2010
Epling, Michael, Professor, MBA, Morehead State University, 1995
Fields, Brian, Assistant Professor, M.S., Everest University, 2010
Forbes, Zelma M, Professor, MS, Ohio University, 1983
Forson-Scopa, Elana, Associate Professor, MS, Eastern Kentucky University, 2003
Givens, Kristie, Instructor, BSN, South University, 2016
Good, Michael S, Professor, MS, Eastern Kentucky University, 2001
Gordon, Shelia, Professor, MLS/MSW, University of Kentucky, 2014/1995
Halcomb Jr, Astor, Professor, BUS, Morehead State University, 1992
Herren, Douglas, Professor, AAS, Southeast Kentucky Community and Technical College, 2006
Hollbrook, Sandy, Professor, MEd, Western Kentucky University, 2011
Hughes, Carlton W, Professor, MA, Marshall University, 1987
Jackson, Terri, Associate Professor, MSN, Western Kentucky University, 2014
Johnson, Joseph, Associate Professor, PhD, Clemson University, 2010
Jones, Jamie, Assistant Professor, MA, East Tennessee State University, 2006
Jones, Lynn Y, Professor, MA, Eastern Kentucky University, 1983
Kidwell, David T, Professor, PhD, University of Kentucky, 1993
Lambert, Kevin, Professor, MS, University of Tennessee, 1994
Lawson, Rebecca L, Associate Professor, CST, BA, Ashford University 2007
Layne, Kenneth, Assistant Professor, BS, Eastern Kentucky University, 1988
March, Joseph S, Professor, MA, University of Tennessee, 1980
Massie, Stephanie, Instructor, BSN, University of Pikeville, 2014
Mayes, Caroline, Associate Professor, MA, National University, 2007
Miller, Rebecca D, Professor, MA, Union College, 1998
Mills, Dana, Instructor, AAS, Fugazzi College, 1999
Nolan, Jennifer, Instructor, AAS Nursing, Southeast Community College, 1986
Omar, Sach, Associate Professor, PhD, Mississippi State University, 1987
Pace, Natasha, Assistant Professor, BS, Eastern Kentucky University, 2007
Pennington, Joy, Associate Professor, MSN, Chamberlain College of Nursing, 2013
Scopa Jr, Joseph A, Professor, MFA, Pennsylvania State University, 1976
Shepherd, Deborah Ann, Instructor, BSN, Chamberlain University, 2018
Silver, Roy, Professor, PhD, University of Toledo, 1982
Simpson, Amelia, Professor, MFA, Spaulding University, 2013
Singh, Rajiv, Assistant Professor, MS, University of North Dakota, 2012
Smith, Marshall, Associate Professor, AAS, Southeast Kentucky Community and Technical College, 2011
Steenbergen, Gary L, Professor, MS, Eastern Kentucky University, 1996
Stewart, Jenny, Assistant Professor, BS, University of Kentucky, 1982
Sundy, Carolyn M, Professor, Ph.D., University of Kentucky, 2013
Turner, Delilah, Instructor, BSN, Eastern Kentucky University, 2013
Turner, Mary Leann, Associate Professor, BS from EKU, 1994
Vaught, Jamie, Professor, MBA, Morehead State University, 1996
Walker, Robert, Associate Professor, AAS, Southeast Kentucky Community and Technical College, 2016
Webb, Danny, Associate Professor, MA, Eastern Kentucky University, 1994
Whited, Paula, Associate Professor, MSN, University of Louisville, 2000
Wright, Wendy, Professor, MS, Eastern Kentucky University, 2015
Mission Statement/Status of Accreditation

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

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

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

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

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

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 are noted by an A in parenthesis.

Visual Art (A)

Occupational/Technical Curricula

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

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

Contact Information

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

Accessibility Services  (270) 534-3406
Admissions/Records  1-855-GO-WKCTC (1-855-469-5282)
Advising Center  1-855-GO-WKCTC (1-855-469-5282)
Adult Learning Center (Adult Education/GED program)  
  McCracken County  (270) 534-3451
  Graves County  (270) 856-2422
Assessment Center  1-855-GO-WKCTC (1-855-469-5282)
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
Financial Aid  1-855-GO-WKCTC (1-855-469-5282)
General Information  (270) 554-9206
Human Resources  (270) 534-3091
Library  (270) 534-3197
Nursing  (270) 534-3466
Paducah School of Art & Design  (270) 534-3901
Public Relations  (270) 534-3083
Purchase Training Center (Mayfield)  (270) 247-9633
Security  (270) 564-8403
Skilled Craft Training Center (Mayfield)  (270) 856-2400
Workforce Solutions Assessments  (270) 534-3490
Transfer Advising Center  (270)534-3187
TRIO - Student Support Services  (270) 534-3180
University of Kentucky College of Engineering  (270) 534-3129
Veterans Affairs  (270) 534-3187
Website westkentucky.kctcs.edu

Administration

President/CEO  Dr. Anton Reece
Vice President of Academic Affairs  Dr. David Heflin
Vice President of Workforce & Economic Development  Kevin O’Neill
Vice President of Business Affairs  Susan Graves
Vice President of Operations  Shay Nolan
Vice President of Student Services  Emily Peck
Vice President of Institutional Advancement  Lee Emmons
Associate Vice President of Academic Affairs  TBD
Associate Vice President of Institutional Planning, Research, and Effectiveness  Dr. Renea Akin
Director of Human Resources  Octavia Lawrence
Director of Marketing and Communications  Bridget Canter
Director of the Clemens Fine Arts Center  Janett Blythe
Director of Adult Education  Todd Birdsong
Dean of Allied Health and Personal Services Division  Tammy Maines
Dean of Applied Technologies Division  Carrie Hopper
Dean of Humanities, Fine Arts, Business and Social Science Division  Stephanie Milliken
Dean of Nursing Division  Britton Shurley
Dean of Science, Math, Computers and Information Technology  Shari Gholson

Faculty

Adkins, Rhonda J, Professor, MA, Murray State University, 1985
Adkins, Rhonda J, Professor, MA, Murray State University, 1985
Akin, Paul R, Associate Professor, MFA, University of South Florida, 1979
Akin, Selenia R, Professor, EdD, Vanderbilt University, 2010
Akojie, Felix O, Professor, PhD, University of IFE, Nigeria, 1985
Armstrong, Teresa D, Instructor, MSN, Bellarmine University, 2007
Arnott, Samuel J, Assistant Professor, BS, Southern Illinois University, 1998
Blaine, Patricia A, Professor, MA, Fort Hays State University, 1981
Blanding, Kathry J, Professor, PhD, University of Louisville, 2016
Burgess, Melissa A, Instructor, MS, Murray State University, 2000
Cahill, Charles S, Associate Professor, MS, California Polytechnic State University, 2009
Calhoun, Paul H, Assistant Professor, BS, Murray State University, 2006
Campbell, Mary J, Instructor, MS, Southern Illinois University, 1993
Carrico, Mary C, Professor, MS, Jacksonville University, 2016
Cates, Joel D, Associate Professor, MS, Murray State University, 2011
Colquhoun, Heather L, Professor, MSE, University of Kentucky, 1999
Dickerson, Craig T, Professor, AAS, West Kentucky Community and Technical College, 2008
Dobbins, Gary R, Instructor, MS, McKendree University, 2017
Donahue, Jason W, Associate Professor, MA, Murray State University, 1995
Dotson, Megan E, Associate Professor, MAE, Murray State University, 2010
Draffen, Carla K, Professor, MBA, Murray State University, 1987
Driver, Timmy E, Associate Professor, AAS, West Kentucky Community and Technical College, 2006
Dubois, Evin D, Instructor, MFA, University of Illinois at Urbana-Champaign, 2017
Duncan, Gywnedolyn L, Instructor, MA, International Theological University, 2006
Durbin, Laura R, Associate Professor, MSN, Indiana Wesleyan University, 2013
Durbin, Melissa N, Instructor, MPA, Murray State University, 2006
Engeland, Erik J, Assistant Professor, AAS, West Kentucky Community and Technical College, 2010
Esau, Emily R, Instructor, MFA, Academy of Art University, 2016
Farrell, Laura K, Instructor, BS, Mississippi University for Women, 2009
Fox, Angela M, Instructor, MS, Champlain University, 2016
Gar, Joseph D, Instructor, PhD, University of the Cumberlands, 2015
Gericke, Kevin L, Professor, PhD, Virginia Polytechnic Institute, 1993
Gholson, Shari D, Professor, DNP, Northern Kentucky University, 2017
Grissom, Gary W, Professor, MS, University of Illinois at Urbana Champaign, 1997
Green, Curtis D, Assistant Professor, AAS, Southern Illinois College, 2009
Gunn, Robert G, Associate Professor, BA, University of Alaska Fairbanks, 1981
Harper, Shawn, Professor, MS, Murray State University, 1990
Hale, SueAnn Wade, Professor, MBA, Murray State University, 1983
Henderson, Tara F, Associate Professor, EdD, Murray State University, 2017
Henry, Greta G, Associate Professor, MS, Murray State University, 2004
Hof, William S, Assistant Professor, AAS, West Kentucky Community and Technical College, 2011
Holland, Virgil T, Associate Professor, AS, Murray State University, 2012
Hood, Emily T, Instructor, AAS, West Kentucky Community and Technical College, 2015
Hopper, Carrie, Associate Professor, MS, Murray State University, 2008
Isenberg, Paula R, Associate Professor, MSN, University of Southern Indiana, 2010
Johnson, David C, Instructor, AAS, Ivy Tech Community College, 2008
Johnson, Jonathan B, Associate Professor, MS, Bellevue University, 2012
Jones, Latoya A, Associate Professor, DC, Life University, 2001
Jordan, Tracy L, Associate Professor, MA, Murray State University, 1986
Keeling, Lee Ann, Instructor, BSN, Chamberlain University, 2017
Knapp, Jo A, Professor, MA, Murray State University, 1990
Lee, Bobby A, Professor, PhD, University of Kentucky, 2018
Liu, Sarah S, Professor, PhD, Old Dominion University, 2006
Lyons, Vanessa F, Instructor, PhD, University of Missouri-Columbia, 2015
Mahoney, Joseph D, Professor, MA, Murray State University, 1990
Martens, Amelia R, Instructor, MS, Indiana University, 2013
McDaniel, Tracy L, Professor, BS, Murray State University, 2009
McGuill, Allison S, Associate Professor, MS, University of Colorado at Denver, 1998
Miller, Randa G, Assistant Professor, BSN, Murray State University, 1988
Milliken, Stephanie K, Professor, MS, Murray State University, 1996
Monahan, Tiffinee S, Professor, MA, Murray State University, 1998
Neitzke, Tanya M, Instructor, MFA, Southern Illinois University Carbondale, 2011
Nickell, David L, Professor, MA, Western Kentucky University, 1982
Perry, Carolyn K, Professor, MBA, Thunderbird School of Global Management, 1980
Petit, Christy L, Associate Professor, MSN, University of Southern Indiana, 2007
Potts, Gregory S, Instructor, BAE, University of Kentucky, 2017
Powell, Lyman R, Instructor, AAS, John A. Logan College, 1988
Pruitt, Douglas L, Professor, PhD, Bowling Green State University, 2000
Quimby, Beverly F, Professor, BS, Mid-Continent University, 2007
Ragsdale, Tina L, Associate Professor, MS, Southern Illinois University at Carbondale, 2008
Reese, Gary L, Associate Professor, MPA, Murray State University, 1987
Russell, Kimberly G, Professor, MA, Southeast Missouri State University, 2000
Senn, Catherine E, Professor, MS, Johns Hopkins University, 1995
Sharley, Britton M, Associate Professor, MFA, Indiana University, 2007
Sills, Eric W, Instructor, AAS, West Kentucky Community and Technical College, 2015
Simmons, Randall R, Professor, MFA, University of Cincinnati, 1995
Stephenson, Lisa G, Professor, EdD, University of Kentucky, 2012
Stoffel, Claudia A, Professor, MSN, Bellarmine College, 1992
Stringer, Amanda F, Assistant Professor, BS, West Kentucky University, 2018
Sullivan, Amy L, Librarian IV, MLS, University of Kentucky, 2017
Swain, Deborah J, Professor, BS, Murray State University, 2008
Taveras, Victor M, Associate Professor, PhD, Pennsylvania State University, 2009
Taylor, Brent E, Assistant Professor, MA, Murray State University, 2002
Taylor, Jason D, Professor, MS, Murray State University, 2000
Teague, Canci E, Associate Professor, MA, Murray State University, 2009
Thompson, Julie E, Associate Professor, MAT, Murray State University, 1999
Toon, Nichole M, Professor, MS, Murray State University, 2016
Uthoff, Candace N, Instructor, AAS, Paducah Community College, 1992
Vos, John D, Professor, MBA, Murray State University, 1989
Wade, Constance L, Professor, MA, Murray State University, 1991
Wadlington, Corey M, Professor, MAE, Austin Peay State University, 1999
Walker, Robin N, Instructor, MBA, Murray State University, 2001
Winstead, Jessica K, Instructor, MSN, Capella University, 2017
Wright, Kelly R, Professor, MS, Murray State University, 1984
Applying for Admission

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

Admission and Registration Procedures

- Prospective students visit the college’s website to complete an online application or contact the admission office of the college they wish to attend and request an admission application.
- The full and proper name of the student and KCTCS student ID number must be used in registration and for all other official purposes.
- Freshmen entering a college for the first time will be required to send an official copy of their high school transcript, GED, or state approved high school equivalency to the admission office of the college they plan to attend. Official high school transcripts submitted to KCTCS may be shared with all KCTCS Colleges.
- Applicants entering with transfer credit must have an official transcript from each college attended forwarded to the admission office of the College they plan to attend. Official transcripts submitted to KCTCS may be shared with all KCTCS Colleges.
- Applicants should submit evidence of college readiness as established by the KY Council on Postsecondary Education (CPE) [http://cpe.ky.gov/policies/academicaffairs/collegereadinessindicators2019.pdf](http://cpe.ky.gov/policies/academicaffairs/collegereadinessindicators2019.pdf) which includes results of the American College Test® (ACT), KYOTE, Scholastic Aptitude Test® (SAT), ALEKS and GED College Readiness scores. Applicants who have not achieved college readiness based on one of the CPE recognized readiness assessments must complete a placement examination recognized in the KCTCS Assessment and Placement Policy and 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 [https://publicsearch.kctcs.edu/policies/Admin%20Policies/4-13.pdf?search=assessment%20and%20placement](https://publicsearch.kctcs.edu/policies/Admin%20Policies/4-13.pdf?search=assessment%20and%20placement)
- Admission to a college does not guarantee admission to a specific program. Applicants seeking admission to an occupational/technical program at any KCTCS college should contact the admission office of the college of interest for information regarding any special requirements for program admission.
- Applicants must submit an application for admission and supporting documents prior to the first day of classes of the term or session for which the student plans to enroll. Some colleges, however, may have an earlier deadline date. Students should check with the admission office of the college they plan to attend for registration/application deadlines.
- A student who applies for admission to a KCTCS college will receive instructions to establish access to Student Self-Service. Student Self-Service allows a student access to many services such as registration, grades, class schedule, financial aid awards, bill payment and many other services.
- All enrolled KCTCS students will be given access to a KCTCS-assigned email account. Official communication from faculty and student service personnel will be sent to this address. Students will continue to have access to this account as long as they are enrolled.

After receiving the completed application and other documents, the admission office will notify the applicant of his or her admission status. It is expected that all students will submit all required documents in order to be eligible to register for classes. In the event this is not possible, students should contact the Admissions Office of the KCTCS college they wish to attend for instructions or assistance. While provisions may be provided, students will not be permitted to register for subsequent semesters without all official required documents.

Non-Degree/Non-Credential Students

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

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

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

High School Students

High school students can enroll in college level courses either as a dual credit student or as a dual enrolled student.

Dual Credit

A dual credit course is a college-level course that allows a student to earn credit both at their high school and the KCTCS College for the same course. College credits are awarded for courses taken upon the completion of the course requirements and will become part of the student’s official college transcript.

To enroll and obtain college credit in a dual credit course student must:
- Complete the KCTCS College’s application for admission by the appropriate deadline.
- Be admitted to the KCTCS College as a dual credit student.
- Meet the requirements for enrollment in the General Education and/or Technical Education Courses per the KCTCS Assessment & Placement of Dual Credit High School Students.

Tuition for a dual credit course is one-third (1/3) of the per credit hour tuition charged by KCTCS for in-state students.

There are designated staff available at each KCTCS college to assist students with information and enrollment into dual credit coursework. Their contact information is available at: [https://kctcs.edu/dual-credit/contacts](https://kctcs.edu/dual-credit/contacts)

More information about dual credit, is available at: [https://kctcs.edu/dual-credit](https://kctcs.edu/dual-credit) and on individual college websites.
Dual Enrollment

Students who wish to take a course that is not eligible for or offered for dual credit may do so as a dually enrolled student. For these courses, students must adhere to the KCTCS admission requirements for non-degree/non-credential seeking students and must meet individual course pre-requisites such as those for entry-level English and mathematics courses. Tuition for a dual enrollment course is the standard KCTCS tuition rate.

Freshmen Entering College for the First Time

A student who has graduated from high school or who has earned a high school equivalency diploma will be required to send an official copy of their high school transcript, GED, or state approved high school equivalency to the admission office of the college they plan to attend. Official high school transcripts submitted to KCTCS may be shared with all KCTCS colleges.

Second Chance Students

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

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

Transient/Visiting Students

A student may be admitted as a transient or visiting student. However, the student’s parent college must certify each term that the student is enrolled or eligible to enroll at parent institution. For admission as a visiting student, a student may provide an official transcript or letter of good standing from their parent/home institution. For registration purposes, a transcript may be required to demonstrate completion of pre-requisite courses.

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.

Students with 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 https://publicsearch.kctcs.edu/policies/Admin%20Policies/4-13.pdf#search=assessment%20%20and%20placement.

An official transcript of all previous college work must be submitted. The Council on Postsecondary Education’s (CPE) 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. Official post-secondary transcripts submitted to KCTCS may be shared with all KCTCS colleges.

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

The KCTCS Assessment and Placement Policy (KCTCS Policy No: 4.13 is found at https://publicsearch.kctcs.edu/policies/Admin%20Policies/4-13.pdf#search=assessment%20and%20placement) specifically applies to all credential-seeking students, students who transition from non-credential seeking to credential seeking, and students who are undecided about their choice of program as of Fall 2019, except students identified under 3.5 B Certificate and Diploma Assessment and Placement Exemptions. Assessment and Placement Guidelines specific to dual credit high school students are found in this policy 4.13 Appendix I.

General Provisions

A. Students enrolling in a college credit course for the purpose of earning credit applicable toward an educational credential who meet the college readiness benchmarks as identified by the Council on Postsecondary Education’s (CPE) College Readiness (see 4.13 APPENDIX III) Indicators may enroll in college-level coursework.
B. A credential-seeking student who does not meet the College Readiness standards established by CPE may be required to enroll in no more than one (1) developmental course in each curriculum pathway (Reading, Writing, and Mathematics) in areas in which the student has not met the academic readiness standards. A developmental course means a course that prepares a student for college-level study and does not award credit toward a credential or degree (13 KAR 2:020).

C. A student shall have access to a corequisite or credit-bearing content course in the curriculum pathway (English or mathematics) within the first academic year of enrollment. Corequisite course is defined as a course that includes enhanced academic supports, such as additional hours of instruction, tutoring, mentoring, or advising that awards credit toward a credential or degree (13 KAR 2:020).

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

E. Primary subject-level placement charts for reading, English and mathematics shall state the minimum score on the subject-specific domain for common tests used within KCTCS. Placement scores indicate minimum academic levels required for placement into KCTCS developmental courses, corequisite courses, entry-level reading, English and mathematics courses, and some programs. Colleges shall not require higher than the KCTCS placement scores listed. Placement charts do not indicate course sequences.

F. All exam scores remain an indicator of academic readiness for a minimum of twelve (12) months from the date of administration. An institution shall not determine academic readiness using scores received from exams taken more than four (4) years prior. Administered placement tests, specific course selection, and course sequences may differ by college insofar as this policy allows. Students should refer to their respective colleges for details.

G. Approved methods of assessment and placement are:

• ACT
• Accuplacer
• ALEKS PPL
• ASSET (not administered after November 30, 2016)
• COMPASS (not administered after November 30, 2016)
• EdReady (KCTCS)
• GED College Readiness
• GPA (Cumulative unweighted high school GPA at the end of the first semester senior year)
• KYOTE
• SAT
• TABE 9/10-A
• Wonderlic

Special Provisions

A. College Discretion One-Level Advancement or “One-Up”

KCTCS Colleges, at their discretion, may place credential-seeking students who score within one placement level below the system-wide standard into an entry-level college corequisite course or pathway-appropriate developmental course.

B. Change in Quantitative Reasoning/Math Pathway

KCTCS colleges may establish procedures to address developmental or prerequisite math needs for students who change programs and consequently QR/Math pathways. Placement into a corequisite course in the new pathway is strongly recommended.

C. Alternative Remediation

Students scoring below the college readiness standards may be eligible for high quality basic skills instruction through Kentucky Skills U (formerly Kentucky Adult Education). Students with college readiness scores below the benchmark can take the Test of Adult Basic Education (TABE) at the local Skills U Center to determine eligibility. Additionally, student may take advantage of various pre-enrollment interventions available at many KCTCS colleges.

D. Accommodations

Students with disabilities may request accommodations consistent with the provisions of Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. E. High School and Home-Schooled Students Assessment and Placement Guidelines specific to dual credit students are in 4.13 Appendix I. Home-Schooled students will follow these same guidelines.

F. Waivers

A college may establish procedures to exempt students from assessment and placement criteria. The procedure must include the conditions under which a waiver will be granted, including clearly identifying the students being granted a waiver and the reason for the waiver. The college’s waiver policy must be on file at the college and in the KCTCS Chancellor’s Office.
# Associate Degree-Seeking Students

## Mathematics Placement

For students who do not have the CPE required minimum college readiness indicators for their chosen pathway (see 4.13 Appendix III), below is the KCTCS Mathematics Placement Level Chart. Each test refers to the **minimum** score required on the appropriate subject-specific domain of the indicated test for each Placement Level. Placement charts do not indicate course sequences. Only common tests are listed. For placement using older or uncommon measures, see 4.13 APPENDIX II.

## Mathematics Placement Levels

<table>
<thead>
<tr>
<th>Mathematics Placement Level</th>
<th>ACT Mathematics</th>
<th>SAT Mathematics</th>
<th>KYOTE Mathematics</th>
<th>EdReady Mathematics</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CALCULUS COLLEGE READINESS</strong></td>
<td>27</td>
<td>650</td>
<td>CALCULUS 15</td>
<td>95</td>
<td>MAT 175, MAT 174, MAT 170</td>
</tr>
<tr>
<td><strong>Precalculus</strong></td>
<td>23</td>
<td>560</td>
<td>COLLEGE ALGEBRA 15</td>
<td>80</td>
<td>MAT 171, MAT 160, MAT 159</td>
</tr>
<tr>
<td><strong>COLLEGE ALGEBRA COLLEGE READINESS</strong></td>
<td>22</td>
<td>540</td>
<td>COLLEGE ALGEBRA 14</td>
<td>75</td>
<td>MAT 161, MAT 155, MAT 154, MAT 150</td>
</tr>
<tr>
<td><strong>College Algebra Corequisite OR QUANTITATIVE REASONING COLLEGE READINESS</strong></td>
<td>19</td>
<td>500</td>
<td>COLLEGE ALGEBRA 7 or MATH PLACEMENT 22</td>
<td>65</td>
<td>MAT 150(^1) with MAT 100, OR STA/MAT 151, MAT 146, MAT 141, MAT 126, MAT 116, MAT 110, MAT 105, PHI 250</td>
</tr>
<tr>
<td><strong>College Algebra Associated Developmental</strong></td>
<td>18</td>
<td>490</td>
<td>MATH PLACEMENT 18</td>
<td>60</td>
<td>MAT 085</td>
</tr>
<tr>
<td><strong>Quantitative Reasoning Corequisite OR Associated Developmental</strong></td>
<td>16</td>
<td>430</td>
<td>MATH PLACEMENT 12</td>
<td>55</td>
<td>MAT 146 with MAT 146(^1), MAT 126 with MAT 126(^1), MAT 116 with MAT 116(^1), MAT 110 with MAT 110(^1), MAT 105 with MAT 105(^1), OR MAT 075, MAT 071, MAT 065</td>
</tr>
<tr>
<td><strong>Meta-Major Pathway Corequisites OR Associated Developmental</strong></td>
<td>14</td>
<td>360</td>
<td>MATH PLACEMENT 6</td>
<td>50</td>
<td>MAT 161 with MAT 161(^1), STA/MAT 151 with MAT 151(^1), MAT 141 with MAT 141(^1) OR MAT 062, MAT 061(^2), MAT 055, MAT 011</td>
</tr>
<tr>
<td><strong>Adult Education</strong></td>
<td>NA</td>
<td>NA</td>
<td>MATH PLACEMENT 0 – 5</td>
<td>0 - 49</td>
<td>Refer to Skills U or Pre-Enrollment Interventions</td>
</tr>
</tbody>
</table>

\(^1\)These courses are either new courses or were submitted for minor course revisions to accommodate corequisite enrollment for Fall 2019, as per 2018-2019 KCTCS CRC Cycle B.

\(^2\)This is a new course being developed for a 2019-2020 implementation.
Reading Placement

The pathway to complete READING basic requirements for a credential will, at most, require one developmental course to be followed by a reading corequisite or no further reading courses required.

For institutions offering Integrated Reading and Writing (IRW) developmental courses, a student shall be placed into whichever is LOWER, the Reading Course Placement or the English Course Placement, but will at no time be required to take more than one developmental course per pathway.

Below is the Reading Placement Level Chart. Each test refers to the minimum score required for the appropriate subject-specific domain of the indicated test for each Placement Level. Only common placement tests are listed. For Reading placement using older or uncommon measures, see 4.13 APPENDIX I.

### Reading Placement Levels

<table>
<thead>
<tr>
<th>Reading Placement Level</th>
<th>ACT READING</th>
<th>SAT EVIDENCE-BASED READING &amp; WRITING</th>
<th>TABE 9/10 - A READING</th>
<th>Wonderlic VERBAL</th>
<th>EdReady READING AND WRITING</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>READING COLLEGE READINESS</td>
<td>20</td>
<td>480</td>
<td>12.5</td>
<td>325</td>
<td>75</td>
<td>No Reading Course Required</td>
</tr>
<tr>
<td>Reading Corequisite or Reading Course</td>
<td>16</td>
<td>440</td>
<td>10.0</td>
<td>265</td>
<td>61</td>
<td>RDG 100 with General Education or College Success Course Corequisite OR IRW 095, RDG 185, RDG 030</td>
</tr>
<tr>
<td>Developmental</td>
<td>11</td>
<td>390</td>
<td>6.0</td>
<td>205</td>
<td>41</td>
<td>IRW 085, RDG 020</td>
</tr>
<tr>
<td>Adult Education</td>
<td>0 – 10</td>
<td>0 – 380</td>
<td>0 – 5.9</td>
<td>0 – 200</td>
<td>0 – 40</td>
<td>Refer Skills U or Pre-Enrollment Interventions</td>
</tr>
</tbody>
</table>

1. Completion of any course within the Reading Corequisite or Reading Course Placement Level satisfies reading requirements.

2. The corequisite general education course may vary by institution. To assist with selection of corequisite courses and student registration, general education courses that currently have a reading prerequisite will allow registration with concurrent enrollment in RDG 100.

3. Students who place at the Corequisite Level, but not lower, for both Reading and English, shall be placed in either IRW 095 which will satisfy both the reading requirement and prerequisites for ENG 101, OR a college-level reading course and/or corequisite English and reading courses. At no time shall a student take both IRW 095 and a corequisite or college-level reading or English course in the same term.
English Placement

The pathway to complete English (Writing) basic requirements for a credential will, at most, require one developmental course to be followed by ENG 101 or ENG 101 corequisite.

For institutions offering Integrated Reading and Writing (IRW) developmental courses, a student shall be placed into whichever is LOWER, the Reading Course Placement or the English Course Placement, but will at no time be required to take more than one developmental course per pathway.

Below is the English Placement Level Chart. Each test refers to the minimum score or level required for the appropriate subject-specific domain of the indicated test for each Placement Level. Only common placement tests are listed. For English placement using older or uncommon measures, see 4.13 APPENDIX I.

### English Placement Levels

<table>
<thead>
<tr>
<th>Placement Level</th>
<th>ACT</th>
<th>SAT</th>
<th>TABE 9/10 - A</th>
<th>Wonderlic</th>
<th>EdReady Reading and Writing</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH COLLEGE READINESS</td>
<td>18</td>
<td>480</td>
<td>12.8</td>
<td>310</td>
<td>75</td>
<td>ENG 101</td>
</tr>
<tr>
<td>English Corequisite OR Developmental for ENG 101</td>
<td>14</td>
<td>440</td>
<td>9.0</td>
<td>240</td>
<td>61</td>
<td>ENG 101 Corequisite with ENG 100 OR IRW 095, ENC 091</td>
</tr>
<tr>
<td>Developmental</td>
<td>12</td>
<td>390</td>
<td>6.1</td>
<td>205</td>
<td>41</td>
<td>IRW 085, ENC 096, ENC 090</td>
</tr>
<tr>
<td>Adult Education</td>
<td>0 – 11</td>
<td>0 – 380</td>
<td>0 – 6.0</td>
<td>0 · 200</td>
<td>0 · 40</td>
<td>Refer to Skills U or Pre-Enrollment Interventions</td>
</tr>
</tbody>
</table>

* Students who place at the Corequisite Level, but not lower, for both Reading and English, shall be placed in either IRW 095 which will satisfy both the reading requirement and prerequisites for ENG 101, OR a college-level reading course and/or corequisite English and reading courses. At no time shall a student take both IRW 095 and a corequisite or college-level reading or English course in the same term.

### English as a Second Language (ESL)

Some KCTCS colleges offer instruction to non-native English speakers. Any ESL student who does not meet college readiness levels in English or reading shall take a language placement assessment, currently the Michigan English Placement Test (MEPT). ESL students who do not meet college readiness levels in mathematics shall take the institution’s current mathematics assessment tool.

Below is the ESL Course Placement Chart for the ESL categories of reading, writing, listening/speaking and grammar. Each test refers to the minimum score required. Please refer to the specific institution’s ESL program guidelines for course options.

### ESL Placement Levels at Bluegrass Community & Technical College

<table>
<thead>
<tr>
<th>Placement Level</th>
<th>ACT</th>
<th>MEPT</th>
<th>READING</th>
<th>WRITING</th>
<th>LISTENING/SPEAKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL COLLEGE READINESS</td>
<td>Reading 20 English 18</td>
<td>EPT 71</td>
<td>No Placement</td>
<td>ENG 101 corequisite with ENG 100, or ENG 101 (if ESL Reading Completed)</td>
<td>No Placement</td>
</tr>
<tr>
<td>ESL Level 3</td>
<td>EPT 60</td>
<td>Any 100 Level HUM corequisite with RDG 100, or ESL 030</td>
<td>ESL 130</td>
<td>ESL 110</td>
<td></td>
</tr>
<tr>
<td>ESL Level 2</td>
<td>EPT 41</td>
<td>ESL 120 corequisite with RDG 100, or ESL 020</td>
<td>ESL 091</td>
<td>ESL 100 or ESL 012</td>
<td></td>
</tr>
<tr>
<td>ESL Level 1</td>
<td>EPT 30</td>
<td>FYE corequisite with RDG 100, or ESL 010</td>
<td>ESL 090</td>
<td>ESL 011</td>
<td></td>
</tr>
<tr>
<td>ESL Level 0</td>
<td>EPT 0 – 29</td>
<td>Refer to Skills U or Pre-Enrollment Interventions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ESL Placement Levels at Jefferson Community & Technical College

<table>
<thead>
<tr>
<th>ESL Placement Level</th>
<th>ACT</th>
<th>MEPT</th>
<th>READING</th>
<th>WRITING</th>
<th>GRAMMAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL COLLEGE READINESS</td>
<td>Reading 20</td>
<td>EPT 70</td>
<td>No Placement</td>
<td>ENG 101, FYE 105</td>
<td>No Placement</td>
</tr>
<tr>
<td>ESL Level 4</td>
<td>EPT 60</td>
<td>ESL 053</td>
<td>ESL 063</td>
<td>ESL 063</td>
<td></td>
</tr>
<tr>
<td>ESL Level 3</td>
<td>EPT 50</td>
<td>ESL 052</td>
<td>ESL 072</td>
<td>ESL 082</td>
<td></td>
</tr>
<tr>
<td>ESL Level 2</td>
<td>EPT 40</td>
<td>ESL 051</td>
<td>ESL 071</td>
<td>ESL 081</td>
<td></td>
</tr>
<tr>
<td>ESL Level 1</td>
<td>EPT 21</td>
<td>ESL 031</td>
<td>ESL 041</td>
<td>ESL 041</td>
<td></td>
</tr>
<tr>
<td>ESL Level 0</td>
<td>EPT 0 - 20</td>
<td>Refer to Skills U or Pre-Enrollment Interventions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7 Formerly referred to as CaMLA (Cambridge Michigan Language Assessment)
8 Where available, special sections of corequisite and RDG 100 classes dedicated to ESL students will be designated

Certificate and Diploma-Seeking Students

Certificate and Diploma Minimum Standards (See Exemptions Below)

KCTCS has determined minimum academic standards for placing students in certificate and diploma programs. Some certificates embedded within associate degree programs may have placement levels less than those required for the associate degree and other certificates may require higher assessment and placement levels as determined through the curriculum approval process. All course prerequisites and selective admissions requirements must still be met.

Certificate or Diploma Minimum Standards (Students should meet one of the following):

• ACT Composite Score of 16
• The equivalent of ACT Mathematics 16, ACT Reading 16, and ACT English 14 as indicated on the Placement Tables found in section 3.3 of this policy
• Earned 12 college-level credit hours within the last 7 years
• Completed the appropriate developmental and/or corequisite course sequence(s).
• Met Ability to Benefit standards (students who have not obtained a high school diploma or its equivalent) by completing a Department of Education approved exam with appropriate scores or satisfactorily completing 6 credit hours or the equivalent coursework applicable toward a degree or certificate offered by the institution making the determination.

Certificate and Diploma Assessment and Placement Exemptions

KCTCS grants an exemption from assessment and placement criteria for any student enrolled in a credential or program that requires 18 credits or less, or is listed below. However, any course prerequisites must still be met.

• Detailer (C)
• Electro Hydraulic Technician (C)
• Industrial Maintenance Electrical Mechanic – Industrial (C)
• Maintenance Mechanic Level 1 (C)

Colleges using the waiver process described in section 3.2 of this policy may exempt students enrolled in select certificate and diploma programs from assessment and placement criteria.

If a student has successfully completed all course work for a certificate or diploma, the student shall then be exempt from assessment and placement criteria, thus allowing the student to earn the qualifying credential.

Appendix I: Assessment and Placement of Dual Credit High School Students

All Colleges will utilize this placement guideline/policy as written

To help maximize high school student success in dual credit courses and subsequent college/university coursework upon high school graduation, and to maintain the integrity of college-level coursework, this policy has been developed to assess and place 9th through 12th grade high school students in dual credit classes. All KCTCS Colleges will follow these guidelines as written, which align closely with the CPE Admissions and Placement Regulation and align with but do not completely match the general provisions of the KCTCS Assessment and Placement Policy.

As per KHEAA policy, the Dual Credit and Work Ready Kentucky Scholarships may not be used for a course which previously received a scholarship. So, if a student earned an E, F, I, or W, they may not use either scholarship to repeat the course. Note that KHEAA success policy is different from KCTCS dual credit course success practices as shown below.

Requirements for enrollment into General Education Dual Credit Courses

Students must meet:

• KCTCS’s college readiness benchmarks for English AND Reading for enrollment into all non-QR/Math courses;
• QR Mathematics (at least Meta-Major Pathway benchmarks) for enrollment into all QR/Math courses;
• AND any course-specific requirements noted in the KCTCS course catalog as appropriate to the desired coursework.
• Exception: Dual credit students in the 12th grade who assess/ place into an English, Math or Reading course with a co-requisite course
may enroll in that option if offered by their KCTCS College. Both courses are eligible for any available dual credit tuition waiver.

Students must have a high school grade point average (GPA) of at least 2.5 on a 4.0 unweighted scale.

- Exception: First semester 9th grade students who do not have a high school GPA may enroll in one general education course and/or one technical course if they meet KCTCS college readiness benchmarks as appropriate for their coursework. This requires benchmarks
  * In English AND Reading for enrollment into all non-QR/Math courses;
  * OR the appropriate Mathematics benchmark for enrollment into all QR/Math courses based on the course admission requested;
  * AND any course-specific requirements noted in the KCTCS course catalog as appropriate to the desired coursework.

Dual credit students (not including Early or Middle College students) who do not successfully complete a dual credit course with a C or higher1:

- If enrolled in 9th or 10th grade, the student may repeat that course or take another dual credit course. The student may only register for one dual credit class the returning semester, and, if applicable, the accompanying co-requisite lab. Please note a KHEAA scholarship may not be used to retake a course for which a scholarship has already been utilized.
- If enrolled in 11th or 12th grade, the student may repeat that course, and, if applicable, the accompanying co-requisite lab AND/OR take other dual credit courses. Please note a KHEAA scholarship may not be used to retake a course for which a scholarship has already been utilized.
- Any dual credit student withdrawing from two or more courses in a session or semester must meet with the College Chief Academic Officer or designee before enrolling for any subsequent session or semester.

### Technical Education Course Requirements

Students must meet:

- An ACT Composite Score of 16;
- OR ACT Mathematics 16 AND ACT Reading 16;
- OR any accepted equivalent from the KCTCS Assessment and Placement Policy;
- OR a high school grade point average (GPA) of 2.5;
- AND any course-specific requirements noted in the KCTCS course catalog.

Dual credit students (not including Early or Middle College students) who do not successfully complete a dual credit course with a C or higher1:

- If enrolled in 9th or 10th grade, the student may repeat that course or take another dual credit course. The student may only register for one dual credit class the returning semester, and, if applicable, the accompanying co-requisite lab. Please note a KHEAA scholarship may not be used to retake a course for which a scholarship has already been utilized.
- If enrolled in 11th or 12th grade, the student may repeat that course, and, if applicable, the accompanying lab AND/OR take other dual credit courses. Please note a KHEAA scholarship may not be used to retake a course for which a scholarship has already been utilized.

1 Students with a D, E, F, or I are considered unsuccessful completers for KCTCS dual credit coursework. Most courses will not transfer or count as a course pre-requisite unless the grade earned is a C or higher.

### Appendix II: Course Placement for Older or Uncommon Measures

The following placement charts are for reference to older placement tests no longer being offered but still within the four (4) year period for placement, or for reference to less common measures or pilot measures. Manual prerequisites overrides may be needed for student enrollment based on some of these measures, especially for courses below college readiness.
# Mathematics Placement Levels

<table>
<thead>
<tr>
<th>Mathematics Placement Level</th>
<th>ACT MATH</th>
<th>ALEKS PPL</th>
<th>ASSET (not available as of November 31, 2016)</th>
<th>COMPASS (not available as of November 31, 2016)</th>
<th>GED College Readiness MATHEMATICAL REASONING</th>
<th>MAP MATH</th>
<th>TABE 9/10 - A</th>
<th>Wonderlic QUANTITATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALCULUS (CL) COLLEGE READINESS</td>
<td>27</td>
<td>76</td>
<td>NA</td>
<td>Algebra 93</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Precalculus</td>
<td>23</td>
<td>52</td>
<td>El Alg. 47</td>
<td>Algebra 55</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>355</td>
</tr>
<tr>
<td>COLLEGE ALGEBRA (CA) COLLEGE READINESS</td>
<td>22</td>
<td>46</td>
<td>El Alg. 46</td>
<td>Algebra 50</td>
<td>175</td>
<td>258</td>
<td>NA</td>
<td>340</td>
</tr>
<tr>
<td>College Algebra Corequisite OR QUANTITATIVE REASONING (QR) COLLEGE READINESS</td>
<td>19</td>
<td>30</td>
<td>El Alg. 41</td>
<td>Algebra 36</td>
<td>165</td>
<td>NA</td>
<td>NA</td>
<td>300</td>
</tr>
<tr>
<td>College Algebra Associated Developmental</td>
<td>18</td>
<td>NA</td>
<td>El Alg. 39</td>
<td>Algebra 31</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>280</td>
</tr>
<tr>
<td>Quantitative Reasoning Corequisite OR Associated Developmental</td>
<td>16</td>
<td>NA</td>
<td>El Alg. 34</td>
<td>Algebra 25</td>
<td>NA</td>
<td>NA</td>
<td>10.2</td>
<td>270</td>
</tr>
<tr>
<td>Meta-Major Pathway Corequisites OR Associated Developmental</td>
<td>14</td>
<td>NA</td>
<td>N. Skills 25</td>
<td>Algebra 16</td>
<td>NA</td>
<td>NA</td>
<td>6.4</td>
<td>250</td>
</tr>
<tr>
<td>Adult Education</td>
<td>NA</td>
<td>NA</td>
<td>N. Skills 0 – 24</td>
<td>Prealgebra 0 - 24</td>
<td>NA</td>
<td>NA</td>
<td>0 – 6.3</td>
<td>0 - 245</td>
</tr>
</tbody>
</table>

# Reading Placement Levels

<table>
<thead>
<tr>
<th>Reading Placement Level</th>
<th>ACT READING</th>
<th>Accuplacer READING</th>
<th>ASSET READING (not available as of November 31, 2016)</th>
<th>COMPASS READING (not available as of November 31, 2016)</th>
<th>GED College Readiness Reasoning through the Language Arts</th>
<th>KYOTE READING</th>
<th>MAP READING</th>
<th>SAT Reading Subscore</th>
</tr>
</thead>
<tbody>
<tr>
<td>READING COLLEGE READINESS</td>
<td>20</td>
<td>80</td>
<td>44</td>
<td>85</td>
<td>165</td>
<td>20</td>
<td>237</td>
<td>25</td>
</tr>
<tr>
<td>Reading Corequisite or Reading Course</td>
<td>16</td>
<td>60</td>
<td>39</td>
<td>73</td>
<td>NA</td>
<td>12</td>
<td>234</td>
<td>17</td>
</tr>
<tr>
<td>Developmental</td>
<td>11</td>
<td>41</td>
<td>32</td>
<td>46</td>
<td>NA</td>
<td>6</td>
<td>NA</td>
<td>11</td>
</tr>
<tr>
<td>Adult Education</td>
<td>0 – 10</td>
<td>0 – 40</td>
<td>0 – 31</td>
<td>0 – 45</td>
<td>NA</td>
<td>0 – 5</td>
<td>NA</td>
<td>0 – 10</td>
</tr>
</tbody>
</table>
## English Placement Levels

<table>
<thead>
<tr>
<th>English Placement Level</th>
<th>ACT ENGLISH</th>
<th>Accuplacer WritePlacer</th>
<th>ASSET WRITING (not available as of November 31, 2016)</th>
<th>COMPASS WRITING (not available as of November 31, 2016)</th>
<th>GED College Readiness Reasoning through the Language Arts</th>
<th>KYOTE WRITING</th>
<th>MAP Language Usage</th>
<th>SAT Writing &amp; Language Subscore</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH COLLEGE READINESS</td>
<td>18</td>
<td>5</td>
<td>43</td>
<td>74</td>
<td>165</td>
<td>6</td>
<td>232</td>
<td>25</td>
</tr>
<tr>
<td>English Corequisite or Developmental for ENG 101</td>
<td>14</td>
<td>4</td>
<td>38</td>
<td>39</td>
<td>NA</td>
<td>NA</td>
<td>228</td>
<td>21</td>
</tr>
<tr>
<td>Developmental</td>
<td>12</td>
<td>2</td>
<td>33</td>
<td>26</td>
<td>NA</td>
<td>3</td>
<td>NA</td>
<td>19</td>
</tr>
<tr>
<td>Adult Education</td>
<td>0 – 11</td>
<td>0 – 1</td>
<td>0 – 32</td>
<td>0 – 25</td>
<td>NA</td>
<td>0 – 2</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

## Appendix III: Council on Postsecondary Education College Readiness Indicators

Beginning 2019-2020, all public postsecondary institutions in Kentucky will use the indicators of readiness established by the Council on Postsecondary Education as measures of college academic readiness. Upon admission to a public postsecondary institution, students scoring at or above the established scores or grades will not be required to complete developmental coursework and will be allowed entry into college credit-bearing coursework that counts toward degree credit requirements.

<table>
<thead>
<tr>
<th>Area</th>
<th>ACT Score</th>
<th>SAT Score</th>
<th>KYOTE</th>
<th>GED College Readiness</th>
<th>ALEKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>English (Writing)</td>
<td>English 18 or higher</td>
<td>Evidence-Based Reading and Writing 480 or higher or 25 on the Writing and Language Test</td>
<td>Writing 6 or higher</td>
<td>Reasoning through the Language Arts 165 or higher</td>
<td>Not applicable as a placement score</td>
</tr>
<tr>
<td>Reading</td>
<td>Reading 20 or higher</td>
<td>Evidence-Based Reading and Writing 480 or higher or 25 on the Writing and Language Test</td>
<td>Reading 20 or higher</td>
<td>Reasoning through the Language Arts 165 or higher</td>
<td>Not applicable as a placement score</td>
</tr>
<tr>
<td>Mathematics (Quantitative Reasoning)</td>
<td>Mathematics 19 or higher</td>
<td>Mathematics 500 or higher</td>
<td>College Readiness Mathematics 22 or higher</td>
<td>Mathematical Reasoning 165 or higher</td>
<td>ALEKS PPL 30</td>
</tr>
<tr>
<td>Mathematics (College Algebra)</td>
<td>Mathematics 22 or higher</td>
<td>Mathematics 560 or higher</td>
<td>College Algebra 14 or higher</td>
<td>Mathematical Reasoning 175 or higher</td>
<td>ALEKS PPL 46</td>
</tr>
<tr>
<td>Mathematics (Calculus)</td>
<td>Mathematics 27 or higher</td>
<td>Mathematics 650 or higher</td>
<td>Calculus 15 or higher</td>
<td>Not applicable as a placement score</td>
<td>ALEKS PPL 76</td>
</tr>
</tbody>
</table>

Per the College Readiness Indicators Workgroup, all exam scores remain an indicator of academic readiness for a minimum of twelve (12) months from the date of administration. Individual institutions may extend the length of time scores remain indicators of academic readiness. However, an institution shall not determine academic readiness using scores received from exams taken more than four (4) years prior. Other exams, prior college coursework, and placement exams may be used for course placement after a student is admitted to a postsecondary institution.
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 specifics. Provisions for partial or deferred payment instructions are available in the “Payment Plan Options” section below.

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

Mandatory Student Fee

A mandatory student fee of $8 per credit hour will be assessed in the 2019-2020 academic year. Questions regarding fees may be directed to your college’s business office.

Charges for Customized Course Offerings

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

Charges for Services

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

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

Charges for Special Examination

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

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

Cancellation of Registration for Non-Payment of Charges

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

Payment Plan Options

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

<table>
<thead>
<tr>
<th>Plans</th>
<th>Service Charge</th>
<th>Percent Down</th>
<th>Monthly Payments</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>*</td>
<td>None</td>
<td>4</td>
<td>Advance 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 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 BankMobile Disbursements, a financial services company focused solely on higher education, to process student refund payments. KCTCS has partnered with BankMobile Disbursement, a financial services company focused solely on higher education, to process student refund payments. For more information about BankMobile, visit this link: https://bankmobiledisbursements.com/refundchoices/.

Timeframe for Tuition Refunds*

<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.

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

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

Timeframe for Refunds*

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

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

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

Timeframe for Refunds*

<table>
<thead>
<tr>
<th>Session</th>
<th>100%</th>
<th>50%</th>
<th>No Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-week</td>
<td>Within 7th day</td>
<td>8th - 29th days</td>
<td>After 29th day</td>
</tr>
<tr>
<td>15-week</td>
<td>Within 7th day</td>
<td>8th - 27th days</td>
<td>After 28th day</td>
</tr>
<tr>
<td>14-week</td>
<td>Within 6th day</td>
<td>7th - 25th days</td>
<td>After 25th day</td>
</tr>
<tr>
<td>13-week</td>
<td>Within 6th day</td>
<td>7th - 24th days</td>
<td>After 24th day</td>
</tr>
<tr>
<td>12-week</td>
<td>Within 5th day</td>
<td>6th - 22nd days</td>
<td>After 22nd day</td>
</tr>
<tr>
<td>11-week</td>
<td>Within 5th day</td>
<td>6th - 20th days</td>
<td>After 20th day</td>
</tr>
<tr>
<td>10-week</td>
<td>Within 4th day</td>
<td>5th - 18th days</td>
<td>After 18th day</td>
</tr>
<tr>
<td>9-week</td>
<td>Within 4th day</td>
<td>5th - 16th days</td>
<td>After 16th day</td>
</tr>
<tr>
<td>8-week</td>
<td>Within 4th day</td>
<td>5th - 15th days</td>
<td>After 15th day</td>
</tr>
<tr>
<td>7-week</td>
<td>Within 3rd day</td>
<td>4th - 13th days</td>
<td>After 13th day</td>
</tr>
<tr>
<td>6-week</td>
<td>Within 2nd day</td>
<td>3rd - 10th days</td>
<td>After 10th day</td>
</tr>
</tbody>
</table>
5 week  Within 2nd day  3rd-9th days  After 9th day
4 week  Within 1st day  4th-7th days  After 7th day
3 week  Within 1st day  2nd-5th days  After 5th day
2 week  Within 1st day  2nd-4th days  After 4th day
1 week  Within 1st day  2nd-2nd days  After 2nd day

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

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

## 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, complete testing for Kentucky Medicaid Nurse Aide 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.
Financial Aid

Overview

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

Student Eligibility and Application

To receive student financial aid from any program in which KCTCS participates requires meeting established eligibility criteria. A listing of specific criteria can be found on KCTCS’ website. In general, you must have a demonstrated need as supported by the Free Application for Federal Student Aid (FAFSA) and a high school diploma or a General Education Development (GED) Certificate. You apply for student aid electronically by using the U.S. Department of Education’s website, www.fafsa.ed.gov, for student financial aid is free. You will need the appropriate income tax forms for you and your spouse or you and your parents (1040, 1040A, 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 by the U.S. Department of Education for a process known as verification. If selected for verification, documentation must be provided in order to receive aid. Applying early ensures consideration of your information for maximum funding and applicants are encouraged to apply as soon after October 1 as possible.

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

Program Applicability: For student’s receiving federal student aid, all coursework must be applicable to the student’s program of study. Students enrolled in courses that do not count toward their degree, certificate, or other recognized credential, those courses cannot be used in the determination of financial aid eligibility.

Dual Enrollment/Consortium Agreements

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

Federal Student Loans

KCTCS colleges participate in the Federal Direct Loan Program. Even if you do not qualify for other federal grant aid, you can still qualify for a federal loan. To qualify, you must complete the FAFSA, entrance counseling, and a signed master promissory note. You must also be enrolled for a minimum of six credit hours.

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

Additionally, each year, individuals, organizations and companies make funding available for scholarships to various KCTCS colleges. The amount and criteria for these awards 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 of the KCTCS institutions offer tuition scholarships. Among these scholarships are: foundation scholarships; 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 the 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 Tax Credit and the Lifetime Learning Tax Credit. Please contact your personal tax advisor regarding your eligibility.

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

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

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

For additional information on Satisfactory Academic Progress please contact your local financial aid office.

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

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

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

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

Testing
Many of the KCTCS colleges have been designated as testing centers for administering scholastic examinations. Examinations given at the colleges include the American College Test® (ACT), a Career Planning Program (CPP), 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 (opal.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 any place they have an internet connection and at any time. Circulation and interlibrary loan services for the physical collections are available in 34 locations across the state. The KCTCS libraries participate in the Kentucky Virtual Library (KYVL), providing access to its broad array of online full-text and citation databases. The libraries share information resources extensively with each other as well as other libraries. They provide interlibrary loan services for books, articles and, in most cases, audio visual materials.

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

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

- Counseling, advocacy and mentoring
- Referrals to community resources
- Job references and referrals
- Job readiness, life skills, financial coaching and academic success
- 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 (WL) services have been expanded to include adult basic education students who are working toward their GEDs and college readiness. Work and Learn services are available to adult basic education students to help make their transition to college a smooth and successful one through:

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

Contact your college WL Coordinator to determine if you are eligible for RTW services.

Kentucky Skills U (Formerly KY Adult Education Services)

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

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

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

Policies and Procedures

Right to Know

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

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

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

Student Rights and Responsibilities

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

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

Drug-Free Policy

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

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

Sexual Harassment

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

Pregnancy Related Accommodations

KCTCS procedure 3.2P Pregnancy-Related Accommodations protects and ensures equal treatment of pregnant persons, individuals with childbirth or pregnancy-related conditions, and new parents. Students may request accommodations for pregnancy, childbirth, or related medical conditions by contacting their home school’s Title IX Coordinator to discuss options. The Title IX Coordinator will work with the faculty for academic accommodations. Faculty members have a legal obligation to make reasonable accommodations for pregnant students. Neither academic freedom nor tenure obviate this legal duty.

Grievance Procedures

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

Student Organizations

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

The NVTHS recognizes students who have shown qualities of leadership, scholarship, skill, responsibility, and service. Each student must have the recommendation of his or her major instructor and meet the minimum criteria. Benefits of membership include: the student’s name will be included in the National Register of Vocational Technical Students of America, as well as being able to request up to three letters of recommendation written by the National NVTHS. For more information visit: www.nths.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 the student body president from each college. Members of this organization serve in an advisory capacity to the Vice President responsible for Student Services. The Advisory Council also provides the opportunity for the student body presidents to exchange ideas on topics of mutual concern.

Co-Curricular Activities

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

FERPA

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

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

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

Privacy and Release of Student Records

Students may withhold Directory Information by notifying designated officials at the college in writing within ten (10) calendar days from the first scheduled day of class of the fall term or through their self-service student account. 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 or may be updated in the student’s self-service student account. A request for “non-disclosure” is commonly called a “privacy request”.

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.
Academic Services

Introduction
KCTCS colleges offer the Associate in Arts (AA), the Associate in Science (AS), and the Associate in Fine Arts (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; Associate in Applied Science (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 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 the KCTCS policy regarding general education certification is outlined in the KCTCS Rules of the Senate, Section V 5.0.4.

Fully General Education Certified
Students who have successfully completed a general education program of 33 credit hours (a minimum of 15 hours completed with KCTCS) will be “fully general education certified”. Students may then transfer these hours altogether as a block. Students must fulfill any additional pre-major requirements of the receiving institution that have not been satisfied through the courses included in the full General Education certification.

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

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

Transfer to Baccalaureate Institutions
Transfer is the process by which credit hours students earn at one institution are applied toward a degree at another institution. The Associate in Arts and the Associate in Science degrees at KCTCS are transfer degrees, made up of 60 credit hours of general education course work and electives that can make up the first two years of a bachelor’s degree. All students are encouraged to complete an associate degree at KCTCS prior to transferring to a four-year institution. KCTCS has developed a number of pathways and transfer agreements to assist students in completing an associate’s degree and then seamlessly transfer to a bachelor’s degree programs at a four-year institution, both in and out of state. Those agreements are available at: kctcs.edu/transfer-agreements.

Transfer Contacts and Services
There are a number of people available to assist students with information and assistance for transfer at each KCTCS college and four-year institutions. Students who are interested in transferring, or just have questions about transferring, are encouraged to seek information as soon as possible.

KCTCS contacts are available at: kctcs.edu/education-training/transfer/contacts/index.aspx

Four-year contacts are available at: kctcs.edu/transfer-partners

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

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

<table>
<thead>
<tr>
<th><strong>AP Test</strong></th>
<th><strong>Score</strong></th>
<th><strong>Credit Awarded</strong></th>
<th><strong>Credit Statement</strong></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>4 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>CHE 170 &amp; CHE 180</td>
<td>8 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</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>Computer Science Principles</td>
<td>3.5</td>
<td>Elective Credit</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>
<tr>
<td>Physics 1</td>
<td>3</td>
<td>PHY 201*</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>Physics 2</td>
<td>3</td>
<td>PHY 203*</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
<td>PSY 110</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3</td>
<td>SPA 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>SPA 201 and 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3</td>
<td>TRN 110 (humanities)***</td>
<td>3 credits hours</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>STA 220</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Studio Art 2-D</td>
<td>3</td>
<td>ART 112</td>
<td>3 credit hour</td>
</tr>
<tr>
<td>Studio Art 3-D</td>
<td>3</td>
<td>ART 113</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Studio Art – Drawing</td>
<td>3</td>
<td>ART 110</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>US Government &amp; Politics</td>
<td>3</td>
<td>POL 101</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>US History</td>
<td>3</td>
<td>HIS 108 and HIS 109</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>World History</td>
<td>3</td>
<td>HIS 101</td>
<td>3 credit hours</td>
</tr>
</tbody>
</table>

*Upon presentation of documentation of appropriate laboratory experience, credit will also be given for the laboratory 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 or technical elective 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.

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.

<table>
<thead>
<tr>
<th>Guide to Educational Credit by Exam –CPS/CAP Recommendations</th>
<th>Suggested KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part I – Office Systems &amp; Technology</td>
<td></td>
</tr>
<tr>
<td>Computer Concepts – 3 credits</td>
<td>OST 105 – Introduction to Information Systems (3)</td>
</tr>
<tr>
<td>Computer Information Systems – 3 credits</td>
<td>OST 240 – Software Integration (3)</td>
</tr>
<tr>
<td>Part II – Office Administration</td>
<td></td>
</tr>
<tr>
<td>Business Communications – 3 credits</td>
<td>OST 235 Business Communications (3)</td>
</tr>
<tr>
<td>Records Management 3 credits</td>
<td>OST 160 Records and Database Management (3)</td>
</tr>
<tr>
<td>Part III – Management</td>
<td></td>
</tr>
<tr>
<td>Management &amp; Supervision – 4 credits</td>
<td>BAS 283 – Principles of Management (3)</td>
</tr>
<tr>
<td>Human Resource Management – 3 credits</td>
<td>BAS 274 – Human Resource Management (3)</td>
</tr>
<tr>
<td>Accounting – 1 credit</td>
<td>ACT 101 – Fundamentals of Accounting</td>
</tr>
<tr>
<td>Recommended credit total : 20</td>
<td>Total credit: 21</td>
</tr>
</tbody>
</table>

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, IEC102, 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.

Military School Age (MSA)

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

College Level Examination Program (CLEP)

KCTCS colleges accept the General and Subject Examinations of the College Level Examination Program (CLEP). The Subject Examinations cover specific material which is common to courses in many colleges and universities. The level of proficiency to earn credit through CLEP is approximately equivalent to that required to earn a “C” in the course.
<table>
<thead>
<tr>
<th>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 or above</td>
<td>POL 101</td>
<td>3</td>
</tr>
<tr>
<td>History of the United States I</td>
<td>50 or above</td>
<td>HIS 108</td>
<td>3</td>
</tr>
<tr>
<td>History of the United States II</td>
<td>50 or above</td>
<td>HIS 109</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Psychology</td>
<td>50 or above</td>
<td>PSY 110</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>50 or above</td>
<td>ECO 202</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>50 or above</td>
<td>ECO 201</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>50 or above</td>
<td>SOC 101</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization I: Ancient Near East to 1648</td>
<td>50 or above</td>
<td>HIS 104</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization II: 1648 to the Present</td>
<td>50 or above</td>
<td>HIS 105</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences and History</td>
<td>50 or above</td>
<td>SOC 101</td>
<td>3</td>
</tr>
<tr>
<td>Human Growth and Developmental</td>
<td>50 or above</td>
<td>AHS 100</td>
<td>2</td>
</tr>
<tr>
<td><strong>Science and Mathematics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculus</td>
<td>50 or above</td>
<td>MAT 174 or MAT 175</td>
<td>4, 5</td>
</tr>
<tr>
<td>College Mathematics</td>
<td>50 or above</td>
<td>MAT 146</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50 or above</td>
<td>MAT 150</td>
<td>3</td>
</tr>
<tr>
<td>Pre-calculus</td>
<td>50 or above</td>
<td>MAT 160</td>
<td>5</td>
</tr>
<tr>
<td>Biology</td>
<td>50-59</td>
<td>BIO 112</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>60-64</td>
<td>BIO 120, BIO 112</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>65-80</td>
<td>BIO 150, 152</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>50 or above</td>
<td>CHE 170, 180</td>
<td>8</td>
</tr>
<tr>
<td>Natural Science</td>
<td>50 or above</td>
<td>BIO 112</td>
<td>3</td>
</tr>
<tr>
<td><strong>Business and Computer Applications</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>50 or above</td>
<td>ACC 201</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>50 or above</td>
<td>BAS 283</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>50 or above</td>
<td>BAS 282</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Business Law</td>
<td>50 or above</td>
<td>BAS 267</td>
<td>3</td>
</tr>
<tr>
<td>Information Systems</td>
<td>50 or above</td>
<td>TRN 146</td>
<td>3</td>
</tr>
<tr>
<td><strong>English and Humanities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Literature</td>
<td>50 or above</td>
<td>ENG 251</td>
<td>3</td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>50 or above</td>
<td>ENG 161</td>
<td>3</td>
</tr>
<tr>
<td>English Literature</td>
<td>50 or above</td>
<td>ENG 161</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>50 or above</td>
<td>HUM 120</td>
<td>3</td>
</tr>
<tr>
<td>College Composition, College Composition Modular</td>
<td>50 or above</td>
<td>ENG 101</td>
<td>3</td>
</tr>
</tbody>
</table>
## Industry Standard Certification Examinations

### Military Service Experience

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

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

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

### Special Exam: STEP or Challenge

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

## Non-Classroom Learning Experiences

### Work Based Learning Experiences

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

### Service Learning

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

### Credit for Prior Learning

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

Some KCTCS courses are available in a modularized credit format allowing students to register for courses that are components of the full (or "parent") course. For example, BAS 212 may be taken as a three credit course or students may enroll in BAS 2121, BAS 2122, and BAS 2123 as separate courses which are equivalent to BAS 212. The sum of the modular credit courses is equal to the full course. The student transcript will display the modularized credit course in the term the student earned the credit and once all components of the full course are earned, the full course will appear on the transcript. Modular Credit Courses are designated as a four digit number. The first three digits are those of the parent course. The last digit is the number of the modular credit segment/component, e.g., XXX 2021, XXX 2022, XXX 2023 or XXX 101A, XXX 101B, XXX 101C. When a student registers for a General Education modularized course, the student must complete all of the courses in that session to fulfill General Education category requirements, e.g., ECO 101 – 3 credits meets the Social & Behavioral Sciences category requirement. If ECO 101 has three modules, ECO 1011, 1012, and 1013, all three ECO 101 modules must be completed before the Social & Behavioral Sciences category requirement will be fulfilled. The student cannot take three modularized courses from three different courses to meet the general education category requirement, e.g., ANT 1011, ECO 1011, and PSY 1101. Some modular courses require students to complete a Learning Contract upon registration which defines the student’s responsibilities.

Academic Policies and Rules

Policies Related to Enrollment

Student Load – Full-time Status

Full-time student academic status for the fall and spring term is 12 credit hours. Full-time student academic status for the summer term is 6 credit hours.

Student Load – Maximum Student Load

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

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

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

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

I: means that part of the work of the course remains unfinished. It shall be given only when there is a reasonable possibility that a passing grade will result from completion of the work. The instructor and student will discuss the requirements for completion of course with the time limit for completion not to exceed a maximum of one year; failure to do so will result in an automatic change of grade from I to F. Each college shall maintain a record of incomplete grades recorded in courses of that college. This record, completed by the instructor at the time the grade is reported, shall include: (1) the name and number of the student, (2) the course number and hours of credit, (3) semester or session and year of enrollment, (4) signature of the instructor, (5) a brief statement of the reason(s) for recording the incomplete grade, and (6) an adequate guide for removal of the incomplete grade. In the instructor’s absence, the division chairperson (or designee), shall forward to the college president (or designee) the appropriate letter grade to replace the incomplete grade.
W: represents a withdrawal from class without completing course requirements. A student may officially withdraw from any class up to and including the date of mid-term with a W grade. After the date of mid-term and through the last class of the semester or session, any student may officially request to withdraw from a course and receive a W which may be given at the discretion of the instructor. Each instructor shall state on the first or second class meeting the factors to be used in determining if a student will be allowed to withdraw during the discretionary period. An instructor shall not assign a student a W for a class unless the student has officially withdrawn from that class in a manner prescribed by the college. The grade of W may be assigned by the College Appeals Board in cases involving a violation of student academic rights or for academic offenses.

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

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

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

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

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

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

Academic Probation, Academic Suspension, and Reinstatement

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

Academic Suspension (Dismissal): If a student is placed on academic probation for two consecutive terms (which is noted on the transcript as “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 course work attempted in the colleges prior to the interruption included in the computation of the student’s GPA. The calculation of the GPA after the student declares bankruptcy begins with the semester of readmission. A student who has elected not to count past work in the computation of his or her GPA will continue to receive credit for those courses in which credit was earned with a grade of A, B, C, D, or P prior to readmission, without including those grades in the computation of the student’s GPA. A student who has completed a credential and re-enrolls may not apply the academic bankruptcy rule to courses taken for the credential already completed. A student may only use the academic bankruptcy option once.

Policies Related to Graduation

Graduation Requirements

For all KCTCS degrees (the Associate in Arts, Associate in Science, Associate in Fine Arts, and Associate in Applied Science degrees) students must complete at least 25 percent of the approved curriculum credits at the KCTCS college granting the degree, regardless of the time the student has attended the college. For a diploma or certificate, the KCTCS college will grant credentials from its approved program inventory when a minimum of 25 percent of the required coursework has been completed within KCTCS. Students must complete the college’s application for graduation within the posted deadline for the term.

Additional Requirements

Associate in Arts, Associate in Science, Associate in Fine Arts, and Associate in Applied Science 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: students 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 on the next page 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 track, 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.
### Academic Credentials Awarded

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

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

**Total General Education Core**

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

### Associate in Arts Requirements

<table>
<thead>
<tr>
<th></th>
<th>6 credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Six (6) credit hours must be selected from Arts and Humanities and/or Social and Behavioral Sciences and/or Foreign Language. Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring.</td>
<td></td>
</tr>
</tbody>
</table>

### Associate in Science Requirements

<table>
<thead>
<tr>
<th></th>
<th>6 credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Six (6) credit hours must be selected from Quantitative Reasoning and/or Natural Sciences. Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring.</td>
<td></td>
</tr>
</tbody>
</table>

### Electives

<table>
<thead>
<tr>
<th></th>
<th>21 credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring.</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credit Hours**

<table>
<thead>
<tr>
<th></th>
<th>60 credit hours</th>
</tr>
</thead>
</table>

### Degree Requirements

1) completion of a 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, 5) demonstration of digital literacy, and 6.) completion of a college success course or equivalent.

1Courses 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/.

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

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

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

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**Associate in Fine Arts (AFA)**

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

### General Education Component:

<table>
<thead>
<tr>
<th>Written and Oral Communications</th>
<th>9 credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students who complete ENG 105 must take an additional 3 credit hours of General Education from any of the General Education categories to fulfill the remaining hours in the Written Communication portion of this requirement.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arts and Humanities</th>
<th>3 credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>The course chosen to satisfy this requirement must be from a discipline other than the discipline in the Fine Arts Core and/or concentration.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quantitative Reasoning</th>
<th>3 credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Must include a laboratory experience for general education certification in the Natural Sciences category.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Social and Behavioral Sciences</th>
<th>6 credit hours</th>
</tr>
</thead>
</table>

**Total General Education**

<table>
<thead>
<tr>
<th></th>
<th>24 credit hours</th>
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</thead>
</table>

### Fine Arts Core

<table>
<thead>
<tr>
<th></th>
<th>18 credit hours</th>
</tr>
</thead>
</table>

### Concentration

<table>
<thead>
<tr>
<th></th>
<th>18 credit hours</th>
</tr>
</thead>
</table>

### Total

<table>
<thead>
<tr>
<th></th>
<th>60 credit hours</th>
</tr>
</thead>
</table>

Degree requirements: 1) completion of a 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.

1Courses 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/.

2A 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 Applied Science (AAS)

General Education Component 15

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

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

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

Technical and Support Component 45 - 53

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

Total Credit Hours 60 - 68

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

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

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

Diploma

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

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.

Certificates will address one or more general education competencies. Certificate curricula will be approved through the KCTCS Curriculum process.

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 Neces-
sary 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 within KCTCS.

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 155.
State Fire Rescue Training Coordinators and Contact Information

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

Madisonville Community College (Area 2)
Mark Boaz, Coordinator
2001 Training Center Drive
Princeton, KY  42445
(800#) 888-306-7986
mark.boaz@kctcs.edu
Counties:  Caldwell, Christian, Crittenden, Hopkins, Lyon, Todd, Trigg

Owensboro Community & Technical College (Area 3)
Jimmy VanCleve, Coordinator
P. O. Box 700
1300 HWY 136E
Calhoun, KY  42327
(800#) 888-306-8015
jimmy.vancleve@kctcs.edu
Counties:  Daviess, Hancock, Henderson, McLean, Muhlenberg, Ohio, Union, Webster

Southcentral Kentucky Community and Technical College (Area 4)
John Weatherbee, Coordinator
825 Morgantown Road
Bowling Green, KY  42101
(800#) 888-234-5760
john.weatherbee@kctcs.edu
Counties:  Allen, Barren, Butler, Edmonson, Hart, Logan, Metcalfe, Monroe, Simpson, Warren

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

Jefferson Community & Technical College (Area 6)
Mike Wallingford, Coordinator
11605 Fairmont Rd
Louisville, KY  40291
(800#) 888-306-8064
rick.larkins@kctcs.edu
Counties:  Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer, Trimble

Gateway Community & Technical College (Area 7)
Bill Birkle, Coordinator
P. O. Box 715
Burlington, KY  41005
bill.birkle@kctcs.edu
Counties:  Boone, Campbell, Carroll, Gallatin, Grant, Kenton, Owen, Pendleton

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

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

Big Sandy Community & Technical College (Area 11)
Greg Gray, Coordinator
45 Gorman Hollow Road
Hazard, KY  41701
(800#) 888-302-8935
greg.gray@kctcs.edu
Counties:  Floyd, Johnson, Magoffin, Martin, Pike

Hazard Community & Technical College (Area 12)
Greg Reams, Coordinator
1791 Barbourville Street
London, KY  40741
(800#) 888-234-6759
greg.reams@kctcs.edu
Counties:  Breathitt, Knott, Lee, Leslie, Letcher, Owsley, Perry, Wolfe

Somerset Community College/Laurel Campus (Area 13)
Chantz Mcpeek, Coordinator
219 Industry Dr
Jamestown, KY  426269
(606) 219-2243
chantz.mcpeek@kctcs.edu
Counties:  Adair, Casey, Clinton, Cumberland, Green, McCreary, Pulaski, Russell, Taylor, Wayne

Somerset Community College (Area 14)
Josh Whitis, Coordinator
219 Industry Dr
Jamestown, KY  426269
(606) 219-2243
josh.whitis@kctcs.edu
Counties:  Adair, Casey, Clinton, Cumberland, Green, McCreary, Pulaski, Russell, Taylor, Wayne

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

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

Competencies will be met at the level appropriate to the credential.

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

General Education Competencies:

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

A. Knowledge of human cultures and the physical and natural worlds through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.

B. Intellectual and practical skills, including

- inquiry and analysis
- critical and creative thinking
- written and oral communication
- quantitative literacy
- information literacy
- teamwork and problem solving

C. Personal and social responsibility, including

- civic knowledge and engagement (local and global)
- intercultural knowledge and competence
- ethical reasoning and action
- foundations and skills for lifelong learning

D. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.

Written Communication

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

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

Oral Communications

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

Quantitative Reasoning

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

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

AA, AS & AFA
MAT 141 Liberal Arts Mathematics .................................................. 3
MAT 146 Contemporary College Mathematics .................................... 3
MAT 150 College Algebra ............................................................... 3
MAT 151 Introduction to Applied Statistics ....................................... 3
MAT 154 Trigonometry ................................................................. 2
MAT 155 Trigonometry* ............................................................... 3
MAT 159 Analytic Geometry and Trigonometry .................................. 4
MAT 160 Precalculus ................................................................. 5
MAT 161 Statistics and Algebra ....................................................... 3

MAT 165 Finite Mathematics and its Applications ......................... 3
MAT 170 Brief Calculus with Applications ...................................... 3
MAT 171 Precalculus ................................................................. 5
MAT 174 Calculus I ................................................................. 4
MAT 175 Calculus I ................................................................. 5
MAT 184 Calculus II ................................................................. 4
MAT 185 Calculus II ................................................................. 5
MAT 206 Mathematics for Elementary and Middle School Teachers II ....... 3
MAT 261 Introduction to Number Theory ........................................ 3
MAT 275 Calculus III ................................................................. 4
MAT 285 Differential Equations ................................................... 3
PH 250 Symbolic Logic ............................................................. 3
STA 151 Introduction to Applied Statistics ...................................... 3
STA 210 Statistics: A Force in Human Judgment ............................... 3
STA 220 Statistics ................................................................. 3
STA 251 Applied 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 153/BIO 153 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 ................................................................. 3
BIO 117 Biology Laboratory II* ..................................................... 1
BIO 118 Microbes and Society ...................................................... 3
BIO 120 Human Ecology ............................................................. 3
BIO 121 Introduction to Ecology Laboratory* .................................... 1
BIO 122 Introduction to Conservation Biology ..................................... 3
BIO 124 Principles of Ecology .......................................................... 3
BIO 130 Aspects of Human Biology ............................................... 3
BIO 135 Basic Anatomy and Physiology with Laboratory* ..................... 4
BIO 137 Human Anatomy and Physiology I* .................................... 4
BIO 139 Human Anatomy and Physiology II* ................................... 4
BIO 140 Botany ................................................................. 3
BIO 141 Botany with Laboratory* ................................................... 4
BIO 142 Zoology ................................................................. 3
BIO 143 Zoology with Laboratory* ................................................... 4
BIO 144 Insect Biology .............................................................. 3
BIO 145 Insect Biology Laboratory* ................................................ 1
BIO 150 Principles of Biology I ..................................................... 3
BIO 151 Principles of Biology Laboratory I* ..................................... 2
BIO 152 Principles of Biology II ..................................................... 3
BIO 153 Principles of Biology Laboratory II* ..................................... 2
BIO 155/AST 155 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 Chemistry in Society ...................................................... 3
CHE 125 The Joy of Chemistry Laboratory* ...................................... 1
CHE 130 Introductory General and Biological Chemistry ..................... 3
CHE 135 Introductory General and Biological Chemistry Lab* .............. 1
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 ........................................... 4
CHE 175 General College Chemistry Laboratory I* ................................ 1
CHE 180 General College Chemistry II .......................................... 4
CHE 185 General College Chemistry Laboratory II* ................................ 1
CHE 220 Analytical Chemistry ...................................................... 3
CHE 227 Organic Chemistry I ....................................................... 3
CHE 275 Organic Chemistry Laboratory I* ....................................... 2
CHE 280 Organic Chemistry II ...................................................... 3
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 Diploma .............................................................. 3

AAS, AA, AS, AFA

AGR 101 The Economics of Food and Agriculture ........................................ 3
ANT 101 Introduction to Anthropology .................................................................. 3
ANT 130/REL 1301 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 223 Culture Change and Globalization .......................................................... 3
ANT 235 Food and Culture ..................................................................................... 3
ANT 240 Introduction to Archaeology .................................................................... 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 Communication ................................................................ 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 201 Pollution, Hazards and Environmental Management ................................ 3
GEO 222 Cities of the World .................................................................................. 3
GEO 249 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 212 Culture and Politics in the Third World ..................................................... 3
POL 235 World Politics ......................................................................................... 3
POL 255 State Government ................................................................................... 3
PSY 110 General Psychology .................................................................................. 3
PSY 180 Human Relations ..................................................................................... 3
PSY 185 Human Potential ...................................................................................... 3
PSY 223 Developmental Psychology ..................................................................... 3
PSY 230 Psychosocial Aspects of Death and Dying .............................................. 3
PSY 297 Psychology of Aging ............................................................................... 3
PSY 298 Essentials of Abnormal Psychology .......................................................... 3
RAE 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 230 Deviant Behavior .................................................................................... 3
SOC 235 Inequality in Society ............................................................................... 3
SOC 249 Media and Culture ................................................................................... 3
SOC 250 Sociology of Popular Culture .................................................................. 3
SOC 260 Population, Resources and Change .......................................................... 3
SPA 115 Hispanic Culture: (Country or Region) .................................................... 3
SUS 101 Introduction to Sustainability ................................................................... 3
SUS 102 Sustainable Built Environment ............................................................... 3
SUS 201 Sustainable Societies .............................................................................. 3
SUS 202 Sustainable Urban Systems ................................................................. 3
SWK 275 The Family ............................................................................................ 3
WGS 200 Introduction to Women’s and Gender Studies in the Social Sciences ............ 3

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

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

Arts and Humanities

Heritage
Diploma, AAS, AA, AS, AFA

FLK 276 Introduction to Folk Studies .................................................................... 3
HIS 101 World Civilization I ................................................................................ 3
HIS 102 World Civilization II ................................................................................ 3
HIS 104 A History of Europe Through the Mid-Seventeenth Century .................... 3
HIS 105 A History of Europe from the Mid-Seventeenth Century to the Present ......... 3
HIS 106 Western Culture: Science and Technology I ............................................. 3
HIS 107 Western Culture: Science and Technology II .......................................... 3
HIS 108 History of the U.S. Through 1865 ............................................................. 3
HIS 109 History of the U.S. Since 1865 .................................................................. 3
HIS 120 The World at War 1939-45 ..................................................................... 3
HIS 202 History of British People to the Restoration .............................................. 3
HIS 203 History of British People Since the Restoration ......................................... 3
HIS 206 History of Colonial Latin America ............................................................ 3
HIS 207 History of Modern Latin America: 1490 to present .................................. 3
HIS 215 Historical Perspectives on Elections and Policy ....................................... 3
HIS 220 Native American History: Pre-Contact to 1865 .......................................... 3
HIS 221 Native American History: 1865 to Present ................................................ 3
HIS 240 History of Kentucky .................................................................................. 3
HIS 247 History of Islam and Middle East Peoples, 300-1250 A.D. ...................... 3
HIS 248 History of Islam and Middle East Peoples, 1250 to Present ..................... 3
HIS 254 History of Sub-Saharan Africa .................................................................. 3
HIS 260 African American History to 1865 ............................................................ 3
HIS 261 African American History 1865 - Present ................................................. 3
HIS 265 History of Women in America .................................................................. 3
HIS 270 Ancient Europe ....................................................................................... 3
HIS 271 Medieval Europe ...................................................................................... 3
HIS 295 East Asia to 1800 ...................................................................................... 3
HIS 296 History of Asia II ...................................................................................... 3

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**Humanities**

Diploma, AAS, AA, AS, AFA

ANT 130/REL 130 Introduction to Comparative Religion .......................... 3
ART 100 Introduction to Art ........................................................................... 3
ART 104 Introduction to African Art .............................................................. 3
ART 105 Ancient Through Medieval Art History ........................................... 3
ART 106 Renaissance Through Modern Art History ...................................... 3
ART 108 Introduction to World Art ............................................................... 3
ART 201 Ancient Art History ........................................................................ 3
ART 202 Medieval Art History ..................................................................... 3
ART 203 Renaissance Art History ............................................................... 3
ART 204 Modern Art History ...................................................................... 3
ART 205 African American Art ................................................................. 3
ENG 135 Greek and Roman Mythology in Translation .................................. 3
ENG 161 Introduction to Literature ............................................................. 3
ENG 190 Introduction to Dystopian Literature & Film .................................. 3
ENG 221 Survey of English Literature I ...................................................... 3
ENG 222 Survey of English Literature II .................................................... 3
ENG 230 Introduction to Literature (Subtitle Required) .............................. 3
ENG 231 Literature and Genre (Subtitle) ...................................................... 3
ENG 232 Literature and Place (Subtitle Required) ........................................ 3
ENG 233 Literature and Identities (Subtitle Required) .................................. 3
ENG 234 Introduction to Women’s Literature .............................................. 3
ENG 251 Survey of American Literature I .................................................. 3
ENG 252 Survey of American Literature II ................................................ 3
ENG 261 Survey of Western Literature from the Greeks through the Renaissance .................................................. 3
ENG 262 Survey of Western Literature from 1660 to the Present .................. 3
ENG 264 Major Black Writers .................................................................... 3
ENG 270 The Old Testament as Literature ................................................ 3
ENG 271 The New Testament as Literature ............................................... 3
ENG 281/HUM 281 Introduction to Film .................................................... 3
ENG 282/HUM 282 International Film Studies .......................................... 3
FLK 276 Introduction to Folk Studies .......................................................... 3
GEN 125 Applied Meta-Thinking ............................................................... 3
HUM 101 Introduction to Contemporary Thought ..................................... 3
HUM 102 The Ancient World ................................................................... 3
HUM 102 The Medieval and Renaissance World ....................................... 3
HUM 201 The Early and Modern World ................................................... 3
HUM 202 The Contemporary World .......................................................... 3
HRS 101 An Integrated Survey of Western Civilization I ........................... 3
HRS 102 An Integrated Survey of Western Civilization II ......................... 3
HRS 201 An Integrated Survey of Western Civilization III ....................... 3
HRS 202 An Integrated Survey of Western Civilization IV ....................... 3
HUM 120 Introduction to the Humanities .................................................. 3
HUM 121 Peace Studies ............................................................................. 3
HUM 135 Introduction to Native American Literature 2 ......................... 3
HUM 140 Introduction to Latino Literature ................................................ 3
HUM 150 Introduction to African Literature ............................................. 3
HUM 160 Introduction to Holocaust Literature and Film .......................... 3
HUM 202 Survey of Appalachian Studies I 2 ......................................... 3
HUM 203 Survey of Appalachian Studies II 2 ......................................... 3
HUM 204 Appalachian Seminar 2 ............................................................. 3
HUM 220 Historical Perspectives on Peace and War .................................. 3
HUM 230 Contemporary Japanese Literature and Culture in Translation .... 3
HUM 250 Appalachian Literature Survey ................................................... 3
HUM 251 Contemporary Appalachian Literature ...................................... 3
HUM 281/ENG 281 Introduction to Film .................................................... 3
HUM 282/ENG 282 International Film Studies .......................................... 3
MU 101 Folk and Traditional Music of the Western Continents ................. 3
MUS 100 Introduction to Music ................................................................. 3
MUS 104 Introduction to Jazz History ........................................................ 3
MUS 206 American Music ........................................................................ 3
MUS 207 African American Music History ............................................. 3
MUS 208 World Music ............................................................................. 3
MUS 222 History and Sociology of Rock Music ........................................ 3
PHI 100 Introduction to Philosophy: Knowledge and Reality ..................... 3
PHI 110 Medical Ethics ............................................................................. 3
PHI 120 Introductory Logic ....................................................................... 3
PHI 130 Ethics .......................................................................................... 3
PHI 140 The Ethics of War and Peace ........................................................ 3
PHI 150 Business Ethics .......................................................................... 3
PHI 160 Philosophy Through Pop Culture .............................................. 3
PHI 170 Philosophy of Religion ............................................................... 3
PHI 180 Animal and Environmental Ethics .............................................. 3
PHI 200 Professional Responsibility .......................................................... 3
PHI 260 History of Philosophy I: From Greek Beginnings to the Middle Ages .......................................................... 3
PHI 270 History of Philosophy II: From the Renaissance to the Present Era .................................................................................. 3
REL 101 Introduction to Religious Studies ................................................. 3
REL 120 Introduction to the Old Testament ............................................... 3
REL 121 Introduction to the New Testament ............................................... 3
REL 130/ANT 130 Introduction to Comparative Religion ......................... 3
REL 150 Comparative Ethics of Major World Religions .................................. 3
REL 160 Religious Expressions of Forgiveness and Justice ....................... 3
REL 170 Philosophy of Religion ............................................................... 3
THA 101 Introduction to Theatre: Principles and Practices ....................... 3
THA 200 Introduction to Dramatic Literature ........................................... 3
THA 283 American Theatre ...................................................................... 3
WGS 201 Introduction to Women’s and Gender Studies in the Arts and Humanities .......................................................... 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 requirement, but may not be used to fulfill both general education categories.

**Other Degree and/or Credential Requirements**

**College Success Courses**

A College Success course promotes college completion by providing an in-depth experience that helps students learn a model for decision-making of life-defining choices. Students learn to use available resources to develop knowledge, skills, and attitudes to promote success. Students will evaluate a wide range of educational, career and life path options, and establish reasoned and researched goals for their future. For completion of the Associate in Arts and Associate in Science degrees, students must complete a college success course or approved equivalent.

FYE 100 Strategies for College Success
FYE 105 Achieving Academic Success

**Cultural Studies Courses**

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

**Social and Behavioral Sciences**

ANT 130/REL 130 Introduction to Comparative Religion*
ANT 160 Cultural Diversity in the Modern World
ANT 220 Introduction to Cultural Anthropology
ANT 221 Native People of North America
ANT 235 Food and Culture
ANT 240 Introduction to Archaeology
ANT 241 Origins of Old World Civilizations
ANT 242 Origins of New World Civilizations
COM 254 Introduction to Intercultural Communication
ECO 150 Introduction to Global Economics
GEO 152 Regional Geography of the World
GEO 160 Lands and Peoples of the Non-Western World
HUM 135 Introduction to Native American Literature*
HUM 202 Survey of Appalachian Studies I*
HUM 203 Survey of Appalachian Studies II*
HUM 204 Appalachian Seminar*
POL 212 Culture and Politics in the Third World
POL 235 World Politics
PSY 230 Psychosocial Aspects of Death and Dying
RAE 120 Introduction to Chinese Culture
REL 101 Introduction to Religious Studies
SOC 235 Inequality in Society
SPA 115 Hispanic Culture: (Country or Region)
WGS 200 Introduction to Women’s and Gender Studies in the Social Sciences
Digital Literacy

KCTCS defines digital literacy as the ability to ethically and responsibly use technology to skillfully locate, evaluate, use, create, and communicate information to improve the quality of life and employability of students.

Before completing an AA, AS, AFA, AAS or any diploma with KCTCS, students must demonstrate digital literacy by one of the following means:

1. Passing the IC3 Global Standard Fast Track exam (using the most current Global Standard available), 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. Completing a KCTCS program that has been given Digital Literacy status for the program, or
6. Providing documentation of successful completion of other certification exams as approved by KCTCS.

Documentation of digital literacy will be recorded as course credit, program completion, transfer course or external exam credit.

Approved KCTCS Digital Literacy courses

- CAD 100 Introduction to Computer Aided Design
- CIT 105 Introduction to Computing
- DLC 101 Digital Literacy
- DPT 100 Introduction to 3D Printing Technology
- EDU 204 Technology in the Classroom
- EDU 205 Introduction to Technology
- IMD 100 Digital Information & Communication Technologies
- OST 105 Introduction to Information Systems
- VCC 125 Computer Graphics I
- VCC 150 Mac Basics

Approved KCTCS programs with Digital Literacy status

In addition to the courses listed above, the following KCTCS AAS programs are approved for Digital Literacy Status.

Students who complete these programs will not need to take an additional course to fulfill the Digital Literacy requirement.

Heritage

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

Humanities

- ART 104 Introduction to African Art
- ART 108 Introduction to World Art
- ART 205 African American Art
- ENG 135 Greek and Roman Mythology in Translation
- ENG 233 Literature and Identity
- ENG 234 Introduction to Women’s Literature
- ENG 264 Major Black Writers
- ENG 282/HUM 282 International Film Studies
- HUM 135 Introduction to Native American Literature
- HUM 140 Introduction to Latino Literature
- HUM 150 Introduction to African Literature
- HUM 160 Introduction to Holocaust Literature and Film
- HUM 202 Survey of Appalachian Studies I
- HUM 203 Survey of Appalachian Studies II
- HUM 204 Appalachian Seminar
- HUM 230 Contemporary Japanese Literature and Culture in Translation
- HUM 250 Appalachian Literature Survey
- HUM 251 Contemporary Appalachian Literature
- MUS 104 Introduction to Jazz History
- MUS 207 African American Music History
- MUS 208 World Music
- REL 101 Introduction to Religion
- REL 130/ANT 130 Introduction to Comparative Religion
- REL 150 Comparative Ethics of Major World Religions
- REL 160 Religious Expressions of Forgiveness and Justice
- 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 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.

Course Transitions

A significant number of courses have changed prefixes and/or course numbers. This does not change the ability of the courses to fulfill general education course requirements as long as courses were eligible at the time of enrollment. Course changes for General Education courses are available in Appendices -E (through 2013-2014 academic year).

Employment and Earnings Information

Information related to KCTCS graduates employment and earnings can be found in Postsecondary Feedback Reports at https://kcews.ky.gov/Reports/Reports.
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>
<th>College Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASC</td>
<td>Ashland Community and Technical College</td>
<td></td>
</tr>
<tr>
<td>BLC</td>
<td>Bluegrass Community and Technical College</td>
<td></td>
</tr>
<tr>
<td>BSC</td>
<td>Big Sandy Community and Technical College</td>
<td></td>
</tr>
<tr>
<td>ELC</td>
<td>Elizabethtown Community and Technical College</td>
<td></td>
</tr>
<tr>
<td>GTW</td>
<td>Gateway Community and Technical College</td>
<td></td>
</tr>
<tr>
<td>HZC</td>
<td>Hazard Community and Technical College</td>
<td></td>
</tr>
<tr>
<td>HEC</td>
<td>Henderson Community College</td>
<td></td>
</tr>
<tr>
<td>HPC</td>
<td>Hopkinsville Community College</td>
<td></td>
</tr>
<tr>
<td>JFC</td>
<td>Jefferson Community and Technical College</td>
<td></td>
</tr>
<tr>
<td>MDC</td>
<td>Madisonville Community College</td>
<td></td>
</tr>
<tr>
<td>MYC</td>
<td>Maysville Community and Technical College</td>
<td></td>
</tr>
<tr>
<td>OWC</td>
<td>Owensboro Community and Technical College</td>
<td></td>
</tr>
<tr>
<td>SMC</td>
<td>Somerset Community College</td>
<td></td>
</tr>
<tr>
<td>SKY</td>
<td>Southcentral Kentucky Community and Technical College</td>
<td></td>
</tr>
<tr>
<td>SEC</td>
<td>Southeast Kentucky Community and Technical College</td>
<td></td>
</tr>
<tr>
<td>WKC</td>
<td>West Kentucky Community and Technical College</td>
<td></td>
</tr>
</tbody>
</table>
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.

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

KCTCS Online: Learn on Demand is a revolution in online education. KCTCS Online: Learn on Demand offers students 100% online degrees, courses, and certificates in 6-15 week courses.

Additional information about KCTCS Online courses and programs for both Learn on Demand and Learn by Term, including student information, may be viewed at the main KCTCS Online web page https://kctcs.edu/education-training/kctcs-online/index.aspx.

Online Programs

KCTCS Online Learn by Term – Semester-based Online Programs

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

All of the courses required for online programs can be taken fully online; however, some courses may require the student to take proctored exams in order to successfully complete the course. 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.

Students may register for KCTCS Online Learn on Demand by using the online application and registration process described in detail on the website https://kctcs.edu/education-training/kctcs-online/index.aspx.

To review a current list of semester-based Learn by Term online programs, visit the KCTCS Online Learn by Term web page https://kctcs.edu/education-training/kctcs-online/index.aspx.

KCTCS Online Learn on Demand Programs

KCTCS Online Learn on Demand is higher education on your terms. It offers accredited, affordable online programs designed to fit the busy, working adult’s schedule. Through Learn on Demand, students can complete Associate in Arts (AA), Associate in Science (AS), and Associate in Applied Science (AAS) degrees, as well as diplomas and certificates. KCTCS Online Learn on Demand offers full courses with multiple start dates available throughout each semester. Courses with Learn on Demand may vary in length based on the start date you select. Students can work with the Learn on Demand coaching network for specific details as information may vary by program. Students may register for KCTCS Online Learn on Demand by using the online application and registration process described in detail on the website https://kctcs.edu/education-training/kctcs-online/learn-on-demand/.

To review a current list of Learn on Demand online programs, visit the KCTCS Online Learn on Demand web page https://kctcs.edu/education-training/kctcs-online/learn-on-demand/.
## Academic Curricula

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

#### Advanced Integrated Manufacturing

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

The Plastics Processing certificate introduces the basic principles and practices of manufacturing plastic products using various processes. Areas of study include safe work practices around plastic processing equipment, material properties, plastic molding and forming processes, process management, part dimensions and gauging, statistical concepts, problem solving, and team project organization. These skills are geared toward workers in plastic processor positions. Upon completion of the certificate, students are ready to enter the plastics industry as plastic processors.

#### Certificate

**Manufacturing Process Operations – 4805013019**

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIM 100</td>
<td>3</td>
</tr>
<tr>
<td>AIM 110</td>
<td>3</td>
</tr>
<tr>
<td>AIM 120</td>
<td>3</td>
</tr>
<tr>
<td>AIT 1001</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1003</td>
<td>1</td>
</tr>
<tr>
<td>CAD 100</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

**Plastics Processing – 4805013029**

(Offered at ASC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIM 120</td>
<td>3</td>
</tr>
<tr>
<td>AIT 200</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>7</strong></td>
</tr>
</tbody>
</table>

### Advanced Integrated Technology

The Advanced Integrated Technology (AIT) program is a program of study that employs the principle of technology integration within sought after certifications: Multi-skilled Technician, Engineering Controls, Skilled Operator, Industrial Refrigeration, Industrial Electrician and Industrial Mechanic 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 Utility Technician certificate prepares students to be entry level groundman operators for the electric utility industry. From the groundman operator position, students progress to “lineman” after gaining on-the-job experience.

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

#### Associate in Applied Science

**Advanced Integrated Technology – 1504997019**

(Offered at ASC, MDC)

**Required General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 126</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
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<tr>
<td>PHY 151</td>
<td>3</td>
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<tr>
<td>PHY 161</td>
<td>1</td>
</tr>
<tr>
<td>PHY 171</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>ENG 105</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</table>

**Technical Core:**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>AIT 100</td>
<td>4</td>
</tr>
<tr>
<td>AIT 110</td>
<td>3</td>
</tr>
<tr>
<td>AIT 120</td>
<td>3</td>
</tr>
<tr>
<td>AIT 130</td>
<td>4</td>
</tr>
<tr>
<td>AIT 140</td>
<td>4</td>
</tr>
<tr>
<td>AIT 150</td>
<td>4</td>
</tr>
<tr>
<td>AIT 210</td>
<td>4</td>
</tr>
<tr>
<td>AIT 270</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>
Choose 16 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Advanced Integrated Technology Program Coordinator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLW 100</td>
<td>Introduction to Engineering Design</td>
<td>4</td>
</tr>
<tr>
<td>PLW 125</td>
<td>Principles of Engineering</td>
<td>4</td>
</tr>
<tr>
<td>ACR 100</td>
<td>Refrigeration Fundamentals</td>
<td>4</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>2</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>
<td>2</td>
</tr>
<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tools B</td>
<td>3</td>
</tr>
<tr>
<td>AIT 135</td>
<td>Industrial Refrigeration I</td>
<td>3</td>
</tr>
<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>1</td>
</tr>
<tr>
<td>AIT 220</td>
<td>The Integrated Power Grid</td>
<td>1</td>
</tr>
<tr>
<td>AIT 230</td>
<td>Integrated Power Plant Operations</td>
<td>4</td>
</tr>
<tr>
<td>AIT 235</td>
<td>Industrial Refrigeration II</td>
<td>3</td>
</tr>
<tr>
<td>EIT 250</td>
<td>Programmable Logic Controllers</td>
<td>3</td>
</tr>
<tr>
<td>AET 250</td>
<td>PLC Networking</td>
<td>4</td>
</tr>
<tr>
<td>AET 270</td>
<td>Advanced PLC Programming</td>
<td>4</td>
</tr>
<tr>
<td>AIT 290</td>
<td>Selected Topics in Advanced Integrated Technology</td>
<td>2</td>
</tr>
<tr>
<td>AIT 299</td>
<td>Advanced Electromechanical Concepts</td>
<td>4</td>
</tr>
<tr>
<td>AIT 190</td>
<td>Industrial Computer Programming Concepts</td>
<td>4</td>
</tr>
<tr>
<td>AET 270</td>
<td>Approved Technical Courses</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1201</td>
<td>Electrical Installation</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1301</td>
<td>Temperature, Pressure, Flow Level</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1302</td>
<td>Integrated Process Control</td>
<td>2</td>
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<tr>
<td>AIT 1401</td>
<td>Basic Electrical Controls</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1501</td>
<td>Intermediate Electrical Controls</td>
<td>2</td>
</tr>
<tr>
<td>AIT 270</td>
<td>Introduction to Robotics and Programmable Logic Controllers</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total 60**

Demonstration of computer/digital literacy is required for the AAS degree.

## Certificates

### Ammonia Refrigeration Fundamentals – 1504993160

(Offered at MDC, MYC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIT 135</td>
<td>Industrial Refrigeration I</td>
<td>3</td>
</tr>
<tr>
<td>AIT 235</td>
<td>Industrial Refrigeration II</td>
<td>3</td>
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</tbody>
</table>

**Total 6**

### Industrial Refrigeration – 1504993140

(Offered at MDC, MYC, SMC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AIT 135</td>
<td>Industrial Refrigeration I</td>
<td>3</td>
</tr>
<tr>
<td>AIT 235</td>
<td>Industrial Refrigeration II</td>
<td>3</td>
</tr>
<tr>
<td>AET 270</td>
<td>Advanced PLC Programming</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total 21**

### Multi-Skilled Maintenance Apprenticeship – 1504993150

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIT 1001</td>
<td>Basic Electrical Knowledge</td>
<td>2</td>
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</tbody>
</table>

**Total 2**

### Engineering Controls – 1504993120

(Offered at ASC, MDC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>AIT 190</td>
<td>Industrial Computer Programming Concepts</td>
<td>4</td>
</tr>
<tr>
<td>EIT 250</td>
<td>Programmable Logic Controllers</td>
<td>4</td>
</tr>
<tr>
<td>AET 270</td>
<td>Advanced PLC Programming</td>
<td>4</td>
</tr>
<tr>
<td>AIT 270</td>
<td>Introduction to Robotics and Programmable Logic Controllers</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total 26**

### Multi-Skilled Technician – 1504993110

(Offered at ASC, MDC, MYC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIT 100</td>
<td>Refrigeration Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>AIT 101</td>
<td>Welding for Maintenance</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total 2**
African American Studies Certificate Program

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
(Of offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 260</td>
<td>African American History I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 261</td>
<td>African American History II</td>
<td>3</td>
</tr>
<tr>
<td>MUS 207</td>
<td>African American Music History</td>
<td>3</td>
</tr>
<tr>
<td>ENG 264</td>
<td>Major Black Writers</td>
<td>3</td>
</tr>
<tr>
<td>Elective*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 18

Agricultural Studies

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

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

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

Associate in Applied Science

Agricultural Studies – 0103017029
(Of offered at HPC, OWC)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>BIO 112</td>
<td>Introduction to Biology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BIO 150</td>
<td>Principles of Biology I</td>
<td>(3)</td>
</tr>
<tr>
<td>AGR 101</td>
<td>Economics of Food and Agriculture</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Subtotal: 15

Advanced Manufacturing

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

Certificate

Fundamentals of Advanced Manufacturing & Machining - 1506133099
(Of offered at GTW)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 102</td>
<td>Certified Production Technician</td>
<td>4</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CMM 110</td>
<td>Fundamentals of Machine Tools A</td>
<td>3</td>
</tr>
<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tools B</td>
<td>3</td>
</tr>
<tr>
<td>CMM 118</td>
<td>Metrology Control Charts</td>
<td>2</td>
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Total Credits: 16-18

Fundamentals of Advanced Manufacturing & Mechatronics - 1506133089
(Of offered at GTW)

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<tr>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
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<tr>
<td>ETL 110</td>
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<td>MFG 125</td>
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<td>MFG 130</td>
<td>Fundamentals of Mechatronics B</td>
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Total Credits: 18-20

Fundamentals of Advanced Manufacturing & Quality Control - 1506133110
(Of offered at GTW)

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<th>Course</th>
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<tr>
<td>MFG 102</td>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
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<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist</td>
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<td>BRX 210</td>
<td>Mechanical Blueprint Reading</td>
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<td>CMM 118</td>
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<td>QMS 101</td>
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Total Credits: 16-18

Skilled Operator - 1504993190
(Of offered at ASC, MDC, MYC)

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<td>Power Generation and Utilization</td>
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<td>AIT 110</td>
<td>Power Distribution Systems</td>
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<tr>
<td>AIT 1203</td>
<td>Mechanical Installation</td>
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Total: 8

Utility Technician - 1504993210
(Of offered at ASC, HZC, MDC)

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<tr>
<td>AIT 145</td>
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<tr>
<td>AIT 245</td>
<td>Utility Technician II</td>
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Total: 12
Agriculture

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

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

Associate in Applied Science

Agriculture - 0103017039

(Offered at ELC, HEC, HPC, MDC)

General Education:

ENG 101 Writing I ............................................. 3
ENG 102 Writing II ........................................... 3
COM 181 Basic Public Speaking ............................ 3
MAT 110 Applied Mathematics OR ........................ 3
MAT 116 Technical Mathematics OR ........................ 3
MAT 126 Technical Algebra and Trigonometry 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 Laboratory I OR ........................... 1
BIO 116 Biology II AND ..................................... 3
BIO 117 Biology Laboratory II OR ........................... 1
BIO 143 Zoology with Laboratory OR ..................... 4
BIO 141 Botany with Laboratory OR ........................ 4
BIO 150 Principles of Biology I AND ....................... 3
BIO 151 Principles of Biology Laboratory I ................. 2
CHE 130 Introductory General and Biological Chemistry AND 3
CHE 135 Introductory General and Biological Chemistry Lab OR .... 1
CHE 140 Introductory General Chemistry AND .............. 3
CHE 145 Introductory General Chemistry Laboratory OR ....... 1
CHE 170 General College Chemistry I AND ................. 3
CHE 175 General College Chemistry Laboratory I .......... 1

Subtotal 26-27

Technical Core:

AGR 125 Introduction to Fertilizers and Soils ................. 3
AGR 130 Field Application in Agriculture .................. 2
AGR 140 Issues in Agriculture ................................ 3
AGR 230 Career Development in Agriculture ............... 3
AGR 240 Animal Science .................................... 3
AGR 250 Introduction to Plants/Crop Production ............ 3
AGR 295 Capstone ............................................ 3

Total Credit Hours 60-61

Agriculture Business/Marketing Track – 010301705

(Offered at HEC, HPC)

AGR 180 Agricultural Internship I .......................... 2
BAS 120 Personal Finance ................................... 3
ECO 201 Principles of Microeconomics ..................... 3
ECO 202 Principles of Macroeconomics .................... 3
BAS 160 Introduction to Business ........................... 3

Subtotal 20

Total Credit Hours 40-43

Diploma

General Agricultural Studies - 0103014029

(Offered at OWC)

ENG 101 Writing I ............................................. 3
MAT 110 Applied Mathematics OR ........................ 3
MAT 126 Technical Algebra and Trigonometry OR ......... 3
MAT 150 College Algebra ..................................... 3
BIO 112 Introduction to Biology AND ....................... 3
BIO 113 Introduction to Biology Lab OR .................. 1
BIO 114 Biology I AND ...................................... 3
BIO 115 Biology Laboratory I OR ........................... 1
BIO 116 Biology II AND ..................................... 3
BIO 117 Biology Laboratory II OR ........................... 1
BIO 143 Zoology with Laboratory OR ..................... 4
BIO 141 Botany with Laboratory OR ........................ 4
BIO 150 Principles of Biology I AND ....................... 3
BIO 151 Principles of Biology Laboratory I ................. 2
CHE 130 Introductory General and Biological Chemistry AND 3
CHE 135 Introductory General and Biological Chemistry Lab OR ......... 1
CHE 140 Introductory General Chemistry AND .............. 3
CHE 145 Introductory General Chemistry Laboratory OR ....... 1
CHE 170 General College Chemistry I AND ................. 3
CHE 175 General College Chemistry Laboratory I .......... 1

Subtotal 26-27

Technical Core:

AGR 125 Introduction to Fertilizers and Soils ................. 3
AGR 130 Field Application in Agriculture .................. 2
AGR 140 Issues in Agriculture ................................ 3
AGR 230 Career Development in Agriculture ............... 3
AGR 240 Animal Science .................................... 3
AGR 250 Introduction to Plants/Crop Production ............ 3
AGR 295 Capstone ............................................ 3

Subtotal 20

Total Credit Hours 60-61

Agriculture Business/Marketing Track – 010301705

(Offered at HEC, HPC)

AGR 180 Agricultural Internship I .......................... 2
BAS 120 Personal Finance ................................... 3
ECO 201 Principles of Microeconomics ..................... 3
ECO 202 Principles of Macroeconomics .................... 3
BAS 160 Introduction to Business ........................... 3

Total Credit Hours 40-43
### Agriculture Education Track – 010301706
*(Offered at ELC, HEC, HPC)*

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<tr>
<td>AGR 180 Agricultural Internship I</td>
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<tr>
<td>AGR 170 Introduction to Equipment, Machines, and Engines</td>
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### Agriculture Technology Track – 010301707
*(Offered at ELC, HEC, HPC, MDC)*

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<tr>
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<td>AGR 180 Agricultural Internship I</td>
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<td>AGR 170 Agriculture Maintenance OR</td>
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<td>AGR 180 Introduction to Equipment, Machines, and Engines</td>
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### Agronomy Track – 010301708
*(Offered at HEC, HPC)*

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### Horticulture Track – 010301709
*(Offered at)*

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<tr>
<td>HRT 110 Nursery Management</td>
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<td>HRT 210 Landscape Design OR</td>
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<td>HRT 240 Greenhouse Management</td>
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### Sustainable Agriculture Track – 010301710
*(Offered at ELC, HEC, MDC)*

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<tbody>
<tr>
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<tr>
<td>AGR 260 Introduction to Sustainable Agriculture</td>
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<td>AGR 270 Introduction to Organic Agriculture</td>
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### Diploma

#### Agriculture - 0103014039
*(Offered at HEC, HPC, MDC)*

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<tr>
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<tr>
<td>Social/Behavioral Science OR</td>
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<tr>
<td>Natural Science OR</td>
<td>(3)</td>
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<tr>
<td>Quantitative Reasoning OR</td>
<td>(3)</td>
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<td>AGR 101 The Economics of Food and Agriculture</td>
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#### General Education:

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<tr>
<td>Natural Science OR</td>
<td>(3)</td>
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<tr>
<td>Quantitative Reasoning OR</td>
<td>(3)</td>
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<td>AGR 101 The Economics of Food and Agriculture</td>
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### Technical Core:

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<tr>
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<td>AGR 130 Field Application in Agriculture</td>
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<td>AGR 140 Issues in Agriculture</td>
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<td>AGR 230 Career Development in Agriculture</td>
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<td>AGR 240 Animal Science</td>
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### Agriculture Business/Marketing Track – 010301401
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<tr>
<td>BAS 120 Personal Finance</td>
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<tr>
<td>ECO 201 Principles of Microeconomics</td>
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<td>BAS 160 Introduction to Business</td>
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### Agriculture Education Track – 010301402
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<td>AGR 180 Agriculture Maintenance OR</td>
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<td>AGR 180 Introduction to Equipment, Machines, and Engines</td>
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<td>AGR 220 Computers in the Agricultural Environment</td>
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### Agriculture Technology Track – 010301403
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<tr>
<td>AGR 180 Introduction to Equipment, Machines, and Engines</td>
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### Agriculture Business/Marketing Track – 010301401
*(Offered at HEC, HPC)*

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<td>ECO 201 Principles of Microeconomics</td>
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<td>ECO 202 Principles of Macroeconomics</td>
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<td>BAS 160 Introduction to Business</td>
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### Agriculture Education Track – 010301402
*(Offered at HEC, HPC)*

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### Agriculture Technology Track – 010301403
*(Offered at HEC, HPC, MDC)*

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<td>AGR 220 Computers in the Agricultural Environment</td>
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### Agronomy Track – 010301404
*(Offered at HEC, HPC)*

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<tr>
<th>Course</th>
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<td>AGR 215 Weed Management</td>
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<td>AGR 245 Pest Management</td>
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### Horticulture Track – 010301405
*(Offered at)*

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<td>HRT 210 Landscape Design OR</td>
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<td>HRT 240 Greenhouse Management</td>
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### Sustainable Agriculture Track – 010301406
*(Offered at HEC)*

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<td>AGR 260 Introduction to Sustainable Agriculture</td>
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<td>AGR 270 Introduction to Organic Agriculture</td>
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### Air Conditioning Technology

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

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

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

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

### Associate in Applied Science

#### Air Conditioning Technology - 4702017019

(Offered at BLC, BSC, ELC, GTW, MDC, OWC, SKY)

**General Education:**

- Quantitative Reasoning .................................................. 3
- Natural Sciences .............................................................. 3
- Social/Behavioral Sciences ............................................... 3
- Heritage/Humanities ...................................................... 3
- Written Communication ................................................... 3
- Oral Communications ..................................................... 3

**Subtotal Credits** 18

**Technical Courses:**

- Digital Literacy .............................................................. 0-3
- Refrigeration Fundamentals .............................................. 3
- Refrigeration Fundamentals Lab ....................................... 2
- HVAC Electricity AND .................................................... 3
- HVAC Electricity Lab OR ................................................ 2
- Comparable Electrical Course* ........................................ 4-5
- Electrical Components .................................................. 3
- Electrical Components Lab ............................................ 2
- Heat Load/Duct Design .................................................. 3
- Cooling and Dehumidification ........................................ 3
- Cooling and Dehumidification Lab .................................. 2
- Heating and Humidification .......................................... 3
- Heating and Humidification Lab ..................................... 2
- Heat Pump Application .................................................. 3
- Heat Pump Application Lab ............................................ 2
- Electives** ................................................................. 10-12

**Subtotal Credits** 42-48

**Total Credits** 60-66

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

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

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

**General Education:**

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

**Subtotal Credits** 6

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

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<td>Refrigeration Fundamentals</td>
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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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<td>ACR 103</td>
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Comparable Electrical Course* ................................................................. (4-5)

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**Electives** .................................................................................. 9-12

**Subtotal Credits** 42-51

**Total Credits** 48-57

*Comparable Electrical Courses:

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<td>EET 155</td>
<td>Electrical Construction I Lab OR</td>
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<tr>
<td>EET 112</td>
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<td>EET 113</td>
<td>Basic Electrical Theory Lab OR</td>
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<td>ELT 110</td>
<td>Circuits I OR</td>
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<tr>
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<td>Industrial Maintenance Electrical Principles AND</td>
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OR Consent of the instructor

**Certificates**

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

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<th>Course Name</th>
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<tbody>
<tr>
<td>ACR 100</td>
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<td>ACR 101</td>
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<td>ACR 102</td>
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**Total Credits** 20

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

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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab</td>
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<td>ACR 208</td>
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**Total Credits** 19

**Domestic Air Conditioner and Furnace Installer - 4702013029**

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

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<th>Course Name</th>
<th>Credits</th>
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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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</tr>
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<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<td>ACR 130</td>
<td>Electrical Components</td>
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<tr>
<td>ACR 131</td>
<td>Electrical Components Lab</td>
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<tr>
<td>ACR 170</td>
<td>Heat Load/Duct Design OR</td>
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<tr>
<td>ACR 250</td>
<td>Cooling and Dehumidification</td>
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<tr>
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<td>Cooling and Dehumidification Lab</td>
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<td>ACR 260</td>
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<tr>
<td>ACR 262</td>
<td>Heating and Humidification Lab</td>
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<tr>
<td>ACR 270</td>
<td>Heat Pump Application AND</td>
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<td>ACR 271</td>
<td>Heat Pump Application Lab OR</td>
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<td>ACR 290</td>
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**Total Credits** 35-36

**Environmental Control System Servicer - 4702013039**

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

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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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**Total Credits** 24-25

**Environmental System Repair Helper - 4702013069**

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

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<td>HVAC Electricity Lab OR</td>
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**Total Credits** 9-10

**Refrigeration Mechanic - 4702013059**

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

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<td>ACR 102</td>
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<td>Ice Machines</td>
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**Total Credits** 27-28

87
### Air Conditioning Technical Electives**:
This list is not all-inclusive. Other courses may be taken with approval of the program instructor/advisor.

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<td>ACR 295</td>
<td>Special Problems III</td>
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<td>Introduction to Computer-Aided Manufacturing</td>
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<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist</td>
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### Appalachian Studies

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

#### Certificate

**Appalachian Studies - 0501223069**

*Offered at ASC, SEC*

**Core:**
- HUM 202 Survey of Appalachian Studies I .................................. 3
- HUM 203 Survey of Appalachian Studies II ................................ 3
- HUM 204 Appalachian Seminar ................................................. 3
- **Subtotal** 9

---

88
Applied Process Technologies

Prepares the graduate for entry-level operations in the power plant, lineman, 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 shutdown of various system components and units. Offers a choice of AAS degree with chemical/refinery operator, power plant operator, and lineman 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

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<th>Course</th>
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<tr>
<td>MAT 116</td>
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<tr>
<td>CHE 130</td>
<td>Introductory General &amp; Biological Chemistry OR...4</td>
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<td>ENG 101</td>
<td>Writing I...................................................3</td>
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<td>ECO 101</td>
<td>Contemporary Economic Issues (Recommended)........(3)</td>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communication.........3</td>
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Technical Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>APT 142</td>
<td>Instrumentation........................................4</td>
</tr>
<tr>
<td>APT 144</td>
<td>Process Operations......................................4</td>
</tr>
<tr>
<td>APT 146</td>
<td>Process Applications....................................2</td>
</tr>
<tr>
<td>APT 148</td>
<td>Process Operations Safety.............................2</td>
</tr>
<tr>
<td>Total</td>
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</tr>
<tr>
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<td>Subtotal 60-63</td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>APT 158</td>
<td>Lineman Technology I....................................3</td>
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<tr>
<td>APT 159</td>
<td>Lineman Technology I Lab................................4</td>
</tr>
<tr>
<td>EET 150</td>
<td>Transformers..............................................2</td>
</tr>
<tr>
<td>EET 151</td>
<td>Transformer Lab..........................................1</td>
</tr>
<tr>
<td>APT 258</td>
<td>Lineman Technology II.................................3</td>
</tr>
<tr>
<td>APT 259</td>
<td>Lineman Technology II Lab................................4</td>
</tr>
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<td>Subtotal 17</td>
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<td>Total</td>
<td>Subtotal 65-68</td>
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</table>

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

<table>
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<th>Units</th>
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<tbody>
<tr>
<td>APT 142</td>
<td>Lineman Technology I....................................3</td>
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<tr>
<td>APT 144</td>
<td>Lineman Technology I Lab................................4</td>
</tr>
<tr>
<td>EET 150</td>
<td>Transformers..............................................2</td>
</tr>
<tr>
<td>EET 151</td>
<td>Transformer Lab..........................................1</td>
</tr>
<tr>
<td>APT 258</td>
<td>Lineman Technology II.................................3</td>
</tr>
<tr>
<td>APT 259</td>
<td>Lineman Technology II Lab................................4</td>
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<tr>
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<td>Subtotal 17</td>
</tr>
<tr>
<td>Total</td>
<td>Subtotal 65-68</td>
</tr>
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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.

Certificate

Alternative Energy – 1504993099
(Offered at BLC, BSC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AET 102</td>
<td>Introduction to Energy ................................4</td>
</tr>
<tr>
<td>AET 110</td>
<td>Introduction to Circuit Analysis OR.................4</td>
</tr>
<tr>
<td>AET 114</td>
<td>Solar and Wind Energy Generation..................4</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR.............3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR,.....................................3</td>
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### Power Plant Operator Track - 410301702

*Offered at ASC, JFC*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>APT 142</td>
<td>Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>APT 154</td>
<td>Power Plant Practice</td>
<td>6</td>
</tr>
<tr>
<td>APT 156</td>
<td>Power Plant Protection</td>
<td>2</td>
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### Electives

<table>
<thead>
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<tr>
<td>APT 299</td>
<td>Cooperative Education Program</td>
<td>(1-6)</td>
</tr>
<tr>
<td>COE 199</td>
<td>Co-op</td>
<td>(1-8)</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>EX 196</td>
<td>Experiential Education</td>
<td>(1-6)</td>
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### Certificate

#### Chemical/Refinery Operator – 4103013039

*Offered at JFC*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SFA 101</td>
<td>OSHA, Health and Environmental Safety</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>CHE 130</td>
<td>Introductory General &amp; Biological Chemistry OR</td>
<td>4</td>
</tr>
<tr>
<td>CHE 140/145</td>
<td>Introduction to General Chemistry with Lab</td>
<td>(4)</td>
</tr>
<tr>
<td>APT 102</td>
<td>Process Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>APT 104</td>
<td>Rotating &amp; Reciprocating Equipment</td>
<td>3</td>
</tr>
<tr>
<td>APT 108</td>
<td>Stationary Equipment</td>
<td>2</td>
</tr>
<tr>
<td>APT 142</td>
<td>Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>APT 144</td>
<td>Process Operations</td>
<td>4</td>
</tr>
<tr>
<td>APT 146</td>
<td>Process Applications</td>
<td>2</td>
</tr>
<tr>
<td>EES 101</td>
<td>Basic Electronics</td>
<td>2</td>
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#### Industrial Worker - 1507013019

*Offered at ASC, JFC*

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<tr>
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<tbody>
<tr>
<td>SFA 101</td>
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#### Lineman – 4103013049

*Offered at ASC*

<table>
<thead>
<tr>
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<th>Title</th>
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</thead>
<tbody>
<tr>
<td>APT 158</td>
<td>Lineman Technology I</td>
<td>3</td>
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<td>APT 159</td>
<td>Lineman Technology I Lab</td>
<td>4</td>
</tr>
<tr>
<td>EET 150</td>
<td>Transformers</td>
<td>2</td>
</tr>
<tr>
<td>EET 151</td>
<td>Transformers Lab</td>
<td>1</td>
</tr>
<tr>
<td>APT 258</td>
<td>Lineman Technology II</td>
<td>3</td>
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<tr>
<td>APT 259</td>
<td>Lineman Technology II Lab</td>
<td>4</td>
</tr>
<tr>
<td>EES 101</td>
<td>Basic Electronics</td>
<td>2</td>
</tr>
<tr>
<td>TRU 100</td>
<td>Truck Driving</td>
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#### Power Plant Operator – 4103013029

*Offered at ASC*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>SFA 101</td>
<td>OSHA, Health and Environmental Safety</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>CHE 130</td>
<td>Introductory General &amp; Biological Chemistry OR</td>
<td>4</td>
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<tr>
<td>CHE 140/145</td>
<td>Introduction to General Chemistry with Lab</td>
<td>(4)</td>
</tr>
<tr>
<td>APT 102</td>
<td>Process Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>APT 104</td>
<td>Rotating &amp; Reciprocating Equipment</td>
<td>3</td>
</tr>
<tr>
<td>APT 142</td>
<td>Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>APT 154</td>
<td>Power Plant Practice</td>
<td>6</td>
</tr>
<tr>
<td>APT 156</td>
<td>Power Plant Protection</td>
<td>2</td>
</tr>
<tr>
<td>EES 101</td>
<td>Basic Electronics</td>
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<tr>
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### Apprenticeship Studies

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

### Associate in Applied Science

#### Apprenticeship Studies - 3000007019

*Offered at BLC, ELC, GTW, JFC, WKC*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 171</td>
<td>Applied Physics OR</td>
<td>4</td>
</tr>
<tr>
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</table>

### Technical Core:

- Computer/Digital Literacy course OR demonstrated competency
- Apprenticeship Credit*                                           42

### Total Credits

- 60-64

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

### Architectural Technology

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

**Architectural Technology - 1513037019**
*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACH 100</td>
<td>Construction Documents I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 110</td>
<td>Survey of the Architectural Profession</td>
<td>1</td>
</tr>
<tr>
<td>ACH 120</td>
<td>Theory and History of Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 150</td>
<td>Construction Documents II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 160</td>
<td>Building Materials and Construction I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 161</td>
<td>Building Materials and Construction II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 170</td>
<td>Theory and History of Architecture II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 175</td>
<td>Introduction to Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACH 195</td>
<td>Computer Aided Drafting I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 200</td>
<td>Construction Documents III</td>
<td>3</td>
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<tr>
<td>ACH 225</td>
<td>Structures</td>
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<td>ACH 250</td>
<td>Construction Documents IV</td>
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<tr>
<td>ACH 260</td>
<td>Office Practice</td>
<td>3</td>
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<tr>
<td>ACH 275</td>
<td>Mechanical and Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td></td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
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**Additional Suggested General Education Courses (Not Required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 180</td>
<td>Selected Topics in Architectural Technology; (Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>ACH 194</td>
<td>Visual Composition</td>
<td>3</td>
</tr>
<tr>
<td>ACH 198</td>
<td>Practicum in Architectural Technology</td>
<td>1-3</td>
</tr>
<tr>
<td>ACH 280</td>
<td>Revit/Building Information Modeling</td>
<td>2</td>
</tr>
<tr>
<td>ACH 290</td>
<td>Building Codes I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 291</td>
<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>ACH 292</td>
<td>Building Codes II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 293</td>
<td>Presentation Techniques</td>
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</tr>
<tr>
<td>ACH 294</td>
<td>Specification Writing</td>
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</tr>
<tr>
<td>ACH 295</td>
<td>Computer Aided Drafting II</td>
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<tr>
<td>ACH 297</td>
<td>Estimating Techniques</td>
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</tr>
<tr>
<td>ACH 298</td>
<td>Computer 3D Modeling</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education: Arch.Tech</td>
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**Total Credits 65-68**

#### **Technical Courses**

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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>ACH 180</td>
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<td>1-3</td>
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<tr>
<td>ACH 280</td>
<td>Revit/Building Information Modeling</td>
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<td>ACH 290</td>
<td>Building Codes I</td>
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<td>ACH 291</td>
<td>Construction Management</td>
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<tr>
<td>ACH 292</td>
<td>Building Codes II</td>
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<tr>
<td>ACH 293</td>
<td>Presentation Techniques</td>
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<td>ACH 295</td>
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<td>Computer 3D Modeling</td>
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<td>COE 199</td>
<td>Cooperative Education: Arch.Tech</td>
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</table>

**Total Credits 65-68**

### Diploma

**Collision Repair Technician - 4706034019**
*(Offered at BSC, GTW, HZC, SEC, SKY, SMC, WKC)*

#### General Education Courses:

**Area 1 = Written Communication, Oral Communications, or Humanities/Heritage**

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

**Total Credits 51-54**

#### Recommended Program Electives

<table>
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<td>Advanced Practicum OR</td>
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<td>Advanced Cooperative Education</td>
<td>2</td>
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#### Certificates

**Automotive Painter - 4706033119**
*(Offered at BSC, GTW, HZC, SEC, SKY, SMC, WKC)*

#### Technical Courses:

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRT 100</td>
<td>Introduction to Collision Repair</td>
<td>2</td>
</tr>
<tr>
<td>CRT 130</td>
<td>Non-Structural Analysis and Damage Repair</td>
<td>6</td>
</tr>
<tr>
<td>CRT 131</td>
<td>Non-Structural Analysis and Damage Repair Lab</td>
<td>6</td>
</tr>
<tr>
<td>CRT 150</td>
<td>Painting and Refinishing</td>
<td>6</td>
</tr>
<tr>
<td>CRT 151</td>
<td>Painting and Refinishing Lab</td>
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<td>CRT 230</td>
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<tr>
<td>CRT 231</td>
<td>Structural Analysis and Damage Repair Lab</td>
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**Total Credits 38**

#### Automotive Painter Helper - 4706033029
*(Offered at BSC, GTW, HZC, SEC, SKY, SMC, WKC)*

**Required:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CRT 100</td>
<td>Introduction to Collision Repair</td>
<td>2</td>
</tr>
<tr>
<td>CRT 150</td>
<td>Painting and Refinishing</td>
<td>6</td>
</tr>
<tr>
<td>CRT 151</td>
<td>Painting and Refinishing Lab</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Credits 14**

### Auto Body/Collision Repair Technology

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

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

#### Collision Repairer – 4706033109
*(Offered at BSC, GTW, HZC, SEC, SKY)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRT 100</td>
<td>Introduction to Collision Repair</td>
<td>2</td>
</tr>
<tr>
<td>CRT 130</td>
<td>Non-Structural Analysis and Damage Repair</td>
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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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<td>CRT 151</td>
<td>Painting and Refinishing Lab</td>
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<td>CRT 230</td>
<td>Structural Analysis and Damage Repair</td>
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<tr>
<td>CRT 250</td>
<td>Mechanical and Electrical Components</td>
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<tr>
<td>CRT 251</td>
<td>Mechanical and Electrical Components Lab</td>
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</table>

**Total Credits 50**
Collision Repair Helper - 4706033059
(Offered at BSC, GTW, HZC, SEC, SKY, SMJ, WKC)

Required:
CRT 100 Introduction to Collision Repair .............................. 2
Electives (Collision Repair Courses with the exception of CRT 150 and CRT 151) .................. 12
Total Credits 14

Automotive Technology

Instruction in systems such as engines, fuel, on-board computers, transmissions, steering, suspension, and brakes is the basis for this program.

The Automotive Technician option provides knowledge of the various systems used to develop skills in troubleshooting, performing preventative maintenance, servicing and repairing automobiles. The program, which is designed to be completed in two years, prepares graduates for entry-level service technician jobs in the auto repair industry. The student may be provided a work-study experience alternating between periods of work on-site and work in a classroom-laboratory setting.

The Parts/Service Writer option provides knowledge of the various systems and components and how they relate. This knowledge enables the student to more accurately interpret their customers’ automotive complaints, identify and sell automotive parts, and provide efficient customer service within the automotive service and repair industry. The student may take the ASE exams in these areas when they have completed the requirements for these tests.

The Hybrid and Electric Vehicle Technician certificate complements the Associate in Applied Science degree and is designed for students to increase and develop the basic knowledge and skills necessary for diagnosing and repairing hybrid and electric vehicles. The additional credential is designed for students who wish to enhance their knowledge of hybrid and electric vehicles. This credential will make the student more employable in the automotive repair field.

Note: Hours Exception (69-72 for the A. A. S. and 61-64 for the Diploma) approved by the KCTCS Board of Regents in March 2011

Associate in Applied Science

Automotive Technology - 4706047019
(Offered at BLC, BSC, ELC, GTW, HZC, JFC, OWC, SKY, WKC)

General Education:
Quantitative Reasoning .................................................. 3
Natural Sciences .......................................................... 3
Social/Behavioral Sciences ............................................. 3
Heritage/Humanities ..................................................... 3
Written Communication .................................................. 3
General Education Total Credit Hours: 15

Technical Core:
Digital Literacy course OR demonstrated competency .................. 0-3
ADX 120 Basic Automotive Electricity .................................. 3
ADX 150 Engine Repair .................................................. 3
ADX 170 Climate Control ............................................... 3
ADX 260 Electrical Systems ........................................... 3
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 Parts/Service Writer Track - 470604702
(Offered at GTW, JFC, OWC)

ISX 100 Industrial Safety ............................................... 3
TQX 110 Total Quality Management ................................. 3
BE 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

Total Credits: 13

Automotive Technician Track - 470604701
(Offered at BLC, BSC, ELC, GTW, 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: 61-64

Diploma

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:
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
ISX 100 Industrial Safety .............................................. 3
TQX 110 Total Quality Management ............................... 3
BE 100 Introduction to Business and Economics ............... 1
TEC 100 Communication for Business and Industry OR ....... 3
CMS 152 Writing for Business and Industry .................... 3
ACT 101 Fundamentals of Accounting I .......................... 3

Any approved work experience component ..................... 1

Technical or Support Courses
Total Credit Hours: 47-50 credits

Total Credits: 53-56 credits
Automotive Technician - 4706044019

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

General Education:
Area 1 = Written Communication, Oral Communications, or
Humanities/Heritage ......................................................... 3
Area 2 = Social/Behavioral Sciences, Natural Sciences
or Quantitative Reasoning .................................................. 3
General Education Total Credit Hours 6

Technical Core:
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 .................................. 3
AUT 141 Basic Fuel and Ignition Systems Lab ............................. 2
AUT 142 Emission Systems .................................................... 3
AUT 143 Emission Systems Lab .............................................. 2
AUT 160 Suspension and Steering .......................................... 2
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 Lab ................ 2
Any approved work experience component .................................. 1
Subtotal Credits: 55-58
Total Credits: 61-64

Certificates

Automatic Transmission/Transaxle Technician - 4706043079

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 180 Automatic Transmission/Transaxle ................................ 3
AUT 181 Automatic Transmission/Transaxle Lab .......................... 2
Total Credits 5

Automotive Air Conditioning Mechanic - 4706043019

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 170 Climate Control ....................................................... 3
ADX 171 Climate Control Lab .................................................. 1
Total Credits 4

Automotive Electrician - 4706043039

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 120 Basic Automotive Electricity AND ................................ 3
ADX 121 Basic Automotive Electricity Lab .................................. 2
ADX 260 Electrical Systems ................................................... 3
ADX 261 Electrical Systems Lab ............................................ 2
Total Credits 10

Brake Repairer- 4706043069

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 110 Brake Systems ....................................................... 2
AUT 111 Brake Systems Lab ................................................... 2
Total Credits 5

Engine Repairer - 4706043089

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 150 Engine Repair ....................................................... 3
ADX 151 Engine Repairer ....................................................... 2
Total Credits 5

Front End Mechanic - 4706043099

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 160 Suspension and Steering .......................................... 2
AUT 161 Suspension and Steering Lab ...................................... 2
Total Credits 5

Hybrid and Electric Vehicle Technician – 4706043139

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 140 Basic Fuel and Ignition Systems .................................. 3
AUT 141 Basic Fuel and Ignition Systems Lab ............................. 2
AUT 142 Emissions Systems .................................................... 3
AUT 143 Emissions Systems Lab .............................................. 2
ADX 150 Engine Repair ....................................................... 3
ADX 151 Engine Repairer ....................................................... 2
ADX 120 Basic Automotive Electricity ........................................ 3
ADX 121 Basic Automotive Electricity Lab .................................. 2
ADX 260 Electrical Systems ................................................... 3
ADX 261 Electrical Systems Lab ............................................ 2
ADX 275 Hybrid and Electric Vehicle Technology ........................... 3
ADX 276 Hybrid and Electric Vehicle Technology Lab ..................... 2
Total Credits 25

Manual Transmission/Drive Train Technician - 4706043059

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 130 Manual Transmissions .............................................. 3
AUT 131 Manual Transmissions Lab ........................................ 2
Total Credits 5

Tune-up Mechanic - 4706043109

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 120 Basic Automotive Electricity ........................................ 3
ADX 121 Basic Automotive Electricity Lab .................................. 2
ADX 260 Electrical Systems ................................................... 3
ADX 261 Electrical Systems Lab ............................................ 2
AUT 140 Basic Fuel and Ignition Systems .................................. 3
AUT 141 Basic Fuel and Ignition Systems Lab ............................. 2
AUT 142 Emissions Systems .................................................... 3
AUT 143 Emissions Systems Lab .............................................. 2
AUT 240 Computer Control Systems and Diagnosis ..................... 3
AUT 241 Computer Control Systems and Diagnosis Lab ................ 2
Total Credits 25
Expertise in the inspection, repair, service and overhaul of aircraft and engines is the goal of this program certified by the Federal Aviation Agency (FAA). Interpreting specifications from service and technical manuals, using testing procedures and equipment, diagnosing problems and making necessary repairs are the skills taught in aircraft maintenance.

To work in the aircraft industry, the FAA must certify students completing this program.

Students enrolled in the Aviation Maintenance Technology program must achieve a minimum grade of "C" in each FAA accredited course.

Note: Hours Exception (75-76 for the A.A.S. and 66-67 for the diploma) approved by the KCTCS Board of Regents in June 2011.

### Associate in Applied Science

**Aviation Maintenance Technology – 4706087029**

(Offered at JFC, SMC)

**General Education:**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ENG 101</td>
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<tr>
<td></td>
<td>Quantitative Reasoning</td>
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<tr>
<td></td>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities</td>
<td>3</td>
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<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
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<td><strong>Subtotal</strong></td>
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<tr>
<td>ATE 100</td>
<td>Aviation Math</td>
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<tr>
<td>ATE 102</td>
<td>Introduction to Aviation Maintenance Technology I</td>
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<td>ATE 104</td>
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<td>ATE 106</td>
<td>Introduction to Aviation Maintenance Technology III</td>
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<tr>
<td>ATE 108</td>
<td>Introduction to Aviation Maintenance Technology IV</td>
<td>3</td>
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<tr>
<td>ATE 202</td>
<td>Aircraft Structures I</td>
<td>3</td>
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<td>ATE 204</td>
<td>Aircraft Structures II</td>
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<td>ATE 206</td>
<td>Aircraft Structures III</td>
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<td>ATE 208</td>
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<td>ATE 222</td>
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**Total Credits: 67**

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

### Diplomas

**Airframe and Power Plant Maintenance Technician – 4706084049**

(Offered at JFC, SMC)

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

| Area 1 = Written Communication, Oral Communications, or Humanities/Humanities | 3 |
| Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning | 3 |
| **Subtotal** | **6** |

**Diploma**

**Airframe and Power Plant Maintenance Technician – 4706084049**

(Offered at JFC, SMC)

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<th>Credits</th>
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<td><strong>Total Credits</strong></td>
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**Introduction to Aviation Electronics – 4706083099**

(Offered at JFC, SMC)

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<td>ATE 293</td>
<td>GROL+ Radar Exam Prep</td>
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### Certificates

**Airframe Maintenance Technician - 4706083069**

(Offered at JFC, SMC)

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<td>ATE 102</td>
<td>Introduction to Aviation Maintenance Technology I</td>
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<tr>
<td><strong>Total Credits</strong></td>
<td><strong>37</strong></td>
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</tr>
</tbody>
</table>

**NOTE:** Computer/Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.
Biomedical Technology Systems

The Biomedical Technology Systems (BTS) program prepares the adult learner to repair, maintain, test, inspect, calibrate, and manage a wide variety of medical devices, equipment, and systems employed in various healthcare sectors. The learner will gain a holistic perspective of the life-cycle duties and skills needed to assure that medical devices meet safety and performance expectations. The program addresses both general and specialized medical technologies along with how these technologies are interfaced with health IT networks. Upon completion of the program, the graduate will be prepared for immediate employment as an entry-level biomedical equipment technician professional and may pursue employment with a number of employers including, but not limited to: hospitals, clinics, home medical equipment companies, dialysis centers, third-party medical equipment service providers, and medical equipment manufacturers.

The BTS program is uniquely designed with the long distance and/or working adult in mind. The curriculum courses are offered online and all BTS technical courses which have associated lab activities require the student to make only one visit to Madisonville Community College each week during the fall and spring semesters. As an alternative, students may take two, short-term summer sessions at Madisonville Community College which encompasses all the lab activities presented in the BTS courses. Two such sessions are required, with one session taken during one summer term and the other session taken during the following summer term, in which each onsite session includes labs from six different BTS courses. Only one session is offered each summer.

Associate in Applied Science

Biomedical Technology Systems – 1504017029

(Offered at MDC)

General Education Courses

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<tr>
<th>Course</th>
<th>Title</th>
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<td>ENG 101</td>
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<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR</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>PHY 171</td>
<td>Applied Physics</td>
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<td>Social/Behavioral Sciences</td>
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<td></td>
<td>Heritage/Humanities</td>
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Technical Support Courses

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<td>Basic Electrical Knowledge</td>
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<tr>
<td>AIT 1101</td>
<td>Electrical Power Distribution</td>
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<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
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<td>CTT 105</td>
<td>Introduction to Computing (fulfills digital literacy requirement)</td>
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<tr>
<td>CTT 111</td>
<td>Computer Hardware and Software</td>
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</tr>
<tr>
<td>CTT 160</td>
<td>Introduction to Networking Concepts</td>
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<td>CTT 180</td>
<td>Security Fundamentals</td>
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Technical Courses

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<td>BTS 250</td>
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<tr>
<td>BTS 260</td>
<td>Radiographic Imaging Modalities</td>
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<tr>
<td>BTS 270</td>
<td>Therapeutic Equipment Modalities I</td>
<td>2</td>
</tr>
<tr>
<td>BTS 275</td>
<td>Therapeutic Equipment Modalities II</td>
<td>2</td>
</tr>
<tr>
<td>BTS 280</td>
<td>General Care Monitoring and Instrumentation</td>
<td>2</td>
</tr>
<tr>
<td>BTS 285</td>
<td>Critical Care Monitoring and Instrumentation</td>
<td>2</td>
</tr>
<tr>
<td>BTS 290</td>
<td>Clinical Experience in Biomedical Technology Systems Professional</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>31</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>68</strong></td>
</tr>
</tbody>
</table>

Elective

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTS 299</td>
<td>Selected Topics of Investigation in Biomedical Technology Systems</td>
<td>(0.5-5.0)</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Certificate

Foundations in Biomedical Technology Networking Systems - 1504013029

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTT 105</td>
<td>Introduction to Computing (fulfills digital literacy requirement)</td>
<td>3</td>
</tr>
<tr>
<td>CTT 111</td>
<td>Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CTT 160</td>
<td>Introduction to Networking Concepts</td>
<td>4</td>
</tr>
<tr>
<td>CTT 180</td>
<td>Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>BTS 250</td>
<td>Introduction to Medical-Based IT Networks and Standards</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Biotechnology Laboratory Technician

The Biotechnology Laboratory Technician AAS program provides the basic knowledge and laboratory skills needed to prepare for entry-level jobs in university, government, pharmaceutical, or industrial biotechnology laboratories. Graduates of the program will be able to seek employment in biotechnology laboratories such as biomanufacturing, quality control, quality assurance, 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 bioractors, 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 Assistant certificate provides basic training and personal support to prepare students for certificates and degrees in Biotechnology or entry level employment in bioscience laboratories. The program is intended for students with little or no background in science, although the program is open to all students. Students enroll in three integrated courses as a cohort, BTN 100, BTN 103, and BTN 104.

The Basic Biotechnician certificate introduces hands-on laboratory training needed for entry-level employment in a biotechnological laboratory.

The Advanced Biotechnician certificate provides practical laboratory skills to supplement theoretical knowledge gained from previous coursework, to improve employability in the biotechnology industry.

The Bioinformatics certificate introduces interdisciplinary curriculum to gain skills required to seek employment at an entry level in performing data acquisition, management, and analysis in laboratory environments. The certificate program can also benefit working professionals seeking to advance or change their careers. Students will learn basic programming, concepts of molecular biology, and use of bioinformatics applications and resources. Emphasis will be placed on the skills required to become
creative and flexible team members and leaders who can work with others in the dynamic interdisciplinary team environment found in today’s biotechnology companies. The Bioinformatics certificate is a joint credential within the Biotechnology Laboratory Technician and Computer Information Technologies areas.

The Environmental Biotechnician certificate provides hands-on training using an interdisciplinary approach of integrating applied biotechnology to study the natural environment. Green technologies, sustainability, biodegradation, and bioremediation will be explored. Students will collect water, air, and soil samples and conduct experiments related to the detection and monitoring of environmental pollutants. The use of biotechnology laboratory methods, system’s biology, and bioinformatics will be emphasized. Students who complete the curriculum satisfactorily are qualified for entry level positions in laboratories or field research companies, including federal, state, or local agencies, university or privately owned biotechnology research labs, or nature resource management organizations. The Environmental Biotechnician Certificate requires successful completion of 21 hours of coursework, which may be earned in 2 semesters, provided all the prerequisites have been met for the required coursework. This is a joint certificate in the Biotechnology Laboratory Technician and Environmental Science Technician programs.

**Associate in Applied Science**

**Biotechnology Laboratory Technician – 4101017029**  
*(Offered at BLC)*

**Required General Education Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences with Laboratory&lt;sup&gt;1&lt;/sup&gt;</td>
<td>4-5</td>
<td></td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Written Communication</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Subtotal: General Education Requirements** 16-17

<sup>1</sup> Science requirement may be satisfied by:
- One semester of college biology with lab, or
- One semester of college chemistry with lab, or
- Course approved by the program coordinator.

**Required Technical Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</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 108</td>
<td>Digital Literacy&lt;sup&gt;1&lt;/sup&gt;</td>
<td>0-3</td>
</tr>
</tbody>
</table>

**Subtotal: Technical Core Requirements** 12-15

<sup>1</sup> Digital literacy must be demonstrated either by competency exam or by successfully completing a digital literacy course.

**Required Technical Elective Courses**

Choose at least 28 credit hours:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</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 220</td>
<td>Immunological Methods</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&lt;sup&gt;6&lt;/sup&gt; OR</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**BTN 298** Biotechnology Learning Laboratory<sup>6</sup> OR 1-3

**COE 199** Cooperative Education<sup>7</sup> OR 1-3

Or course approved by the program coordinator.

**Subtotal: Technical Elective Courses** 28

**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**

**Advanced Biotechnician - 4101013050**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</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 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>
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<td>BTN 126</td>
<td>Bioinformatics II</td>
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</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 220</td>
<td>Immunological Methods</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&lt;sup&gt;6&lt;/sup&gt; OR</td>
<td>1-3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education&lt;sup&gt;7&lt;/sup&gt;</td>
<td>1-3</td>
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</tbody>
</table>

Or course approved by the program coordinator 4-5

**Total** 27

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**Basic Biotechnician- 4101013020**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</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 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>
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</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 220</td>
<td>Immunological Methods</td>
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</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&lt;sup&gt;6&lt;/sup&gt; OR</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Total** 16-17

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<sup>6</sup> 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.

Students are strongly encouraged to gain hands-on experience by enrolling in BTN 295, BTN 298 or COE 199, to reinforce technical skills learned in the classroom.

Prerequisites:
- At least one semester of college level chemistry and college level biology, with an earned associate’s degree or higher.
- Or consent of program coordinator
**Broadband Technology**

The Broadband Technology program provides training through three distinct tracks—Broadband Technician, Broadband Telecommunications Equipment Installer Track, and Broadband Design and Applications Track. The program includes instruction in telecommunications, outside plant operations, computer networking, communications networks and systems, signals, circuits, fiber optics, and wireless systems and technology. Progression in the Broadband Technology program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

**Broadband Technician Track**

The track provides course work, competencies and experiences to prepare the students for success as Broadband Technicians. Areas of study as related to this track include HFC (Hybrid Fiber Cable), Fiber Optics Systems, Basic Telephony Installations and Maintenance, Outside Plant Pole Climbing and Construction Safety, and Electrical Construction (specifically Fiber Optic and Data Cable Installations).

**Broadband Telecommunications Equipment Installer Track**

This track provides course work, competencies and experiences to prepare the students for success as Broadband Telecommunications Equipment Installers. Areas of study as related to this track include Computer Hardware and Software, Introduction to GIS (Graphical Information Systems), Functions and Operation of PBX Systems, Fiber Optics Systems Splicing and Maintenance, Basic Telephony Installations and Maintenance, Outside Plant Pole Climbing and Construction Safety.

**Broadband Design and Applications Track**

The track provides course work, competencies and experiences to prepare the students for success in Broadband Design and Applications. Areas of study as related to this track include GIS (Graphical Information Systems), Security Systems and Regulations, HFC (Hybrid Fiber Cable), Satellite Dishes, Fiber Optics Systems, NEC (National Electrical Code) outlining the standards for proper installation of communication cables and systems according to the NFPA70 (National Fire Protection Association), and Electrical Construction (specifically Fiber Optic and Data Cable Installations).

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**Bioinformatics—4101013060**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
</tr>
<tr>
<td>BTN 105</td>
<td>Applied Biotechnology Laboratory Calculations</td>
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<tr>
<td>BTN 125</td>
<td>Biometrics</td>
</tr>
<tr>
<td>BTN 126</td>
<td>Biometrics II</td>
</tr>
<tr>
<td>BTN 201</td>
<td>Biotechnology Techniques I</td>
</tr>
<tr>
<td>BTN 202</td>
<td>Biotechnology Techniques II</td>
</tr>
<tr>
<td>CIT 149</td>
<td>Java I OR</td>
</tr>
<tr>
<td>CS 115</td>
<td>Introduction to Computer Programming OR</td>
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<tr>
<td>INF 120</td>
<td>Elementary Programming</td>
</tr>
<tr>
<td>CIT 170</td>
<td>Database Design Fundamentals OR</td>
</tr>
<tr>
<td>INF 282</td>
<td>Introduction to Databases</td>
</tr>
<tr>
<td>CIT 249</td>
<td>Java II OR</td>
</tr>
<tr>
<td>CS 215</td>
<td>Introduction to Program Design, Abstraction, and Problem Solving OR</td>
</tr>
<tr>
<td>INF 260</td>
<td>Object Oriented Programming I AND</td>
</tr>
<tr>
<td>INF 260L</td>
<td>Object Oriented Programming I Laboratory</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development OR</td>
</tr>
<tr>
<td>IMD 133</td>
<td>Beginning Web Design OR</td>
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<tr>
<td>INF 286</td>
<td>Introduction to Web Development</td>
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**Total 28-29**

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**Biotechnology Laboratory Assistant—4101013040**

*(Offered at BLC)*

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>BTN 100</td>
<td>Contextual Science with Laboratory</td>
</tr>
<tr>
<td>BTN 103</td>
<td>Contextual Laboratory Language</td>
</tr>
<tr>
<td>BTN 104</td>
<td>Contextual Laboratory Calculations</td>
</tr>
<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
</tr>
<tr>
<td>BTN 106</td>
<td>Fundamentals of Scientific Communications</td>
</tr>
<tr>
<td>INF 286</td>
<td>Introduction to Web Development</td>
</tr>
</tbody>
</table>

**Total 17**

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**Environmental Biotechnology—4101013070**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
</tr>
<tr>
<td>BTN 201</td>
<td>Biotechnology Techniques I</td>
</tr>
<tr>
<td>BTN 202</td>
<td>Biotechnology Techniques II</td>
</tr>
<tr>
<td>CHE 170</td>
<td>General College Chemistry I</td>
</tr>
<tr>
<td>CHE 175</td>
<td>General College Chemistry Laboratory I</td>
</tr>
<tr>
<td>EST 150</td>
<td>Introductory Ecology</td>
</tr>
<tr>
<td>EST 170</td>
<td>Environmental Sampling Laboratory</td>
</tr>
<tr>
<td>EST 260</td>
<td>Environmental Methods and Analysis Lab</td>
</tr>
</tbody>
</table>

**Total 21**

---

1 BTN 100, BTN 103, and BTN 104 must be taken as a cohort.
Broadband Technician Specialist
The Broadband Specialists (Field Technicians) certificate primarily focuses on new installations of cable television and broadband services. Students learn a variety of duties including installation, changes of service, additional outlet installation, disconnection of service, payment collection, and any special requests customers may have in regard to installation.

**Associate in Applied Science**

**Broadband Technology – 4701037019**
*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
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</tr>
<tr>
<td>MAT 150 College Algebra OR (3)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126 Technical Algebra and Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>PHY 172 Applied Physics OR</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications Course</td>
<td>3</td>
</tr>
<tr>
<td>Program Coordinator of Program Coordinator</td>
<td>(3)</td>
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<tr>
<td>Technical Core</td>
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<tr>
<td>ELT 110 Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ELT 120 Digital I</td>
<td>3</td>
</tr>
<tr>
<td>BBT 289 Broadband Technology Capstone</td>
<td>1</td>
</tr>
<tr>
<td>CIT 105 Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIT 161 Introduction to Networks</td>
<td>4</td>
</tr>
<tr>
<td>ISX 100 Industrial Safety</td>
<td>3</td>
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<tr>
<td>BBT 100 Introduction to HFC Cable TV</td>
<td>3</td>
</tr>
<tr>
<td>BBT 200 Introduction to Cellular Technology</td>
<td>2</td>
</tr>
<tr>
<td>Subtotal</td>
<td>28</td>
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</tbody>
</table>

**Broadband Design and Applications Track - 470103703**
*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 125 Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>BBT 210 Security Systems Applications</td>
<td>3</td>
</tr>
<tr>
<td>BBT 101 HFC Cable-TV Operations</td>
<td>3</td>
</tr>
<tr>
<td>EET 154 Electrical Construction I</td>
<td>2</td>
</tr>
<tr>
<td>EET 155 Electrical Construction I Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 252 Electrical Construction II</td>
<td>2</td>
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<tr>
<td>EET 253 Electrical Construction II Lab</td>
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<tr>
<td>EET 250 National Electrical Code</td>
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<tr>
<td>Track Subtotal</td>
<td>21</td>
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</tbody>
</table>

**Total Credit Hours** 67-68

**Broadband Telecommunications Equipment Installer Track - 470103702**
*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 125 Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>BBT 220 PBX Installation</td>
<td>2</td>
</tr>
<tr>
<td>BBT 201 Advanced Cellular Technology</td>
<td>2</td>
</tr>
<tr>
<td>ELT 224 Basic Telecommunications Installation and Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>ETT 110 Voice &amp; Data Installer Level I</td>
<td>4</td>
</tr>
<tr>
<td>ETT 116 Fiber Optic Systems</td>
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</tr>
<tr>
<td>Track Subtotal</td>
<td>17</td>
</tr>
</tbody>
</table>

**Total Credit Hours** 63-64

**Certificates**

**Broadband Basic Installer – 4701033050**
*(Offered at BSC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 110 Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>BBT 100 Introduction to HFC Cable TV</td>
<td>3</td>
</tr>
<tr>
<td>BBT 200 Introduction to Cellular Technology</td>
<td>2</td>
</tr>
<tr>
<td>ELT 224 Basic Telecommunications Installation and Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
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</table>

**Broadband Cyber Security Technician – 4701033090**
*(Offered at BSC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BBT 210 Security Systems Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIT 110 Voice &amp; Data Installer Level I</td>
<td>4</td>
</tr>
<tr>
<td>CIT 105 Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIT 161 Introduction to Networks</td>
<td>(3)</td>
</tr>
<tr>
<td>ISX 100 Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>BBT 100 Introduction to HFC Cable TV</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 220 Introduction to Computer Forensics for Criminal Justice</td>
<td>3</td>
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<td>Total</td>
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**Broadband Support Technician – 4701033060**
*(Offered at BSC, SEC)*

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<tr>
<td>ELT 110 Circuits I</td>
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<td>ELT 120 Digital I</td>
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<tr>
<td>CIT 105 Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIT 161 Introduction to Networks</td>
<td>(3)</td>
</tr>
<tr>
<td>ISX 100 Industrial Safety</td>
<td>3</td>
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<tr>
<td>BBT 100 Introduction to HFC Cable TV</td>
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<td>BBT 200 Introduction to Cellular Technology</td>
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</table>

**Broadband Technician Specialist – 4701033070**
*(Offered at BSC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BBT 100 Introduction to HFC Cable TV</td>
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</tr>
<tr>
<td>BBT 200 Introduction to Cellular Technology</td>
<td>2</td>
</tr>
<tr>
<td>ETT 110 Voice &amp; Data Installer Level I</td>
<td>4</td>
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<tr>
<td>ETT 116 Fiber Optic Systems</td>
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<tr>
<td>ELT 224 Basic Telecommunications Installation and Maintenance</td>
<td>3</td>
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<tr>
<td>ELT 222 Mechanics of Telephony</td>
<td>3</td>
</tr>
<tr>
<td>ETT 154 Electrical Construction I</td>
<td>2</td>
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<td>ETT 155 Electrical Construction I Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>ETT 252 Electrical Construction II</td>
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<tr>
<td>ETT 253 Electrical Construction II Laboratory</td>
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<tr>
<td>Total</td>
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</tbody>
</table>
Building Controls Technician

The Building Controls Technician Certificate is designed to prepare graduates for a career in the building controls field. The curriculum provides a background in electricity and HVAC technologies, and a hands-on experience in networked building control systems. Graduates will have an understanding of the importance of optimizing and maintaining building control systems in relation to sustainability and economic benefit.

Certificates

Building Controls Technician – 4604013099

ACR 100 Refrigeration Fundamentals .......................... 3
ACR 101 Refrigeration Fundamentals Lab ..................... 2
ACR 102 HVAC Electricity ...................................... 3
ACR 103 HVAC Electricity Lab .................................. 2
CRA 230 Building Controls I ..................................... 5
CRA 232 Building Controls II .................................... 5
Technical Electives .................................................... 10
Total 30

Technical Electives (Must complete 10 credit hours from the list below.)

ACR 206 Boilers ..................................................... 5
ACR 207 Commercial HVAC Systems ......................... 5
ACR 208 Chillers .................................................. 4
Other Technical Electives approved by the Program Coordinator .................................................. 3-10

Business Studies

Four programs are offered under the broader heading of Business Studies. They are Administrative Office Technology, Business Administration, Medical Information Technology, and Supply Chain Management.

Administrative Office Technology

The Administrative Office Technology program is an integrated curriculum, which prepares graduates at the certificate, diploma, and associate degree level. The Administrative Office Technology program prepares students to work in an office environment of people, process, and technologies. Job titles may include Administrative Assistant, Office Assistant, Office Manager, and Financial Assistant. These personnel use a variety of office technology and computer-based applications (word processing, electronic mail, desktop publishing, graphics, database, and spreadsheet). They support and help facilitate accurate communication and information exchange to internal and external customers on a timely basis. Technical courses combined with general education courses prepare students for today’s workforce and provide a basis for lifelong learning, a necessity for the workforce of the future. Students select an area of specialty from the following tracks: financial assistant, administrative, desktop publishing, and legal. Program graduates are employed in professional office, education, government, businesses, and industries. Graduates may choose to sit for the Certified Professional Secretary Examination or Certified Administrative Professional Examination or Microsoft Office Specialists Certifications.

Progression in the Administrative Office Technology program is contingent upon achievement of a grade of “C” or better in all OST courses.

Associate in Applied Science

Administrative Office Technology – 5204027039

(Offered at BLC, ELC, JFC, HPC, MYC, OWC)

General Education:

ENG 101 Writing I .................................................. 3
MAT 105 Business Mathematics OR .......................... 3
MAT 110 Applied Mathematics OR ............................. 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 110 Document Formatting and Word Processing .......... 3
OST 160 Records and Database Management .................. 3
OST 210 Advanced Word Processing Application .............. 3
OST 215 Office Procedures ....................................... 3
OST 235 Business Communications Technology .............. 3
OST 240 Software Integration .................................... 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 Management Track - 520402701

(Offered at BLC, ELC, HPC, JFC, MYC, OWC)

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
OST 295 Administrative Office Technology Internship OR .... 3
COE 199 Cooperative Education ................................ 3

Choose two courses (6 credit hours) from the following list:

BAS 160 Introduction to Business ................................ 3
BAS 120 Personal Finance ........................................ 3
ENG 102 Writing II .............................................. 3
OST 108 Editing Skills for the Office Professional ............ 3
OST 150 Transcription and Office Technology ................ 3
OST 250 Advanced Desktop Publishing ......................... 3
OST 255 Introduction to Business Graphics .................... 3
OST 272 Presentation Graphics .................................. 3
Elective course approved by Program Coordinator .......... 3
Total Administrative Management Track 18

Total Credit Hours OST AAS 60-61
Desktop Publishing Track - 520402704
(Offered at BLC)
Available Completely Online

<table>
<thead>
<tr>
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<th>Credit Hours</th>
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<td>OST 130</td>
<td>Typography</td>
<td>3</td>
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<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
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<tr>
<td>OST 250</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
<td></td>
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<tr>
<td>OST 255</td>
<td>Introduction to Business Graphics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
<td>3</td>
<td></td>
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<tr>
<td>OST 220</td>
<td>Administrative Office Simulation</td>
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<td>COE 199</td>
<td>Cooperative Education</td>
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Total Desktop Publishing Track Credit Hours 20-21

Total Credit Hours OST AAS 62-64

Financial Assistant Track - 52042703
(Offered at BLC)
Available Completely Online

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<tr>
<td>ACT 102</td>
<td>Fundamentals of Accounting II OR</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
<td></td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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Choose two courses (6 hours) from the following list:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Notes</th>
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<tbody>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
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</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
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<tr>
<td>OST 112</td>
<td>Financial Management</td>
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<td>OST 213</td>
<td>Business Calculations for the Office Professional</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
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Total Financial Assistant Track Credit Hours 18

Total Credit Hours OST AAS 60-61

Legal Administrative Track - 52042705
(Offered at BLC)

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<tr>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
<td></td>
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<td>ACT 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OST 109</td>
<td>Legal Terminology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OST 221</td>
<td>Legal Office Simulations</td>
<td>3</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>3</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
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<td>AHS 115</td>
<td>Medical Terminology</td>
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</table>

Total Legal Administrative Assistant Track Credit Hours 18

Total Credit Hours OST AAS 60-61

Diplomas

<table>
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<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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<td>3</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>(3)</td>
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<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
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</table>

Total General Education 6

Technical Courses

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<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Notes</th>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
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</tr>
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<td>Introduction to Information Systems</td>
<td>3</td>
<td></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>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
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</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Applications</td>
<td>3</td>
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<tr>
<td>OST 215</td>
<td>Office Procedures</td>
<td>3</td>
<td></td>
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<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
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<tr>
<td>OST 240</td>
<td>Software Integration</td>
<td>3</td>
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<td>Administrative Office Technology Internship OR</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(2-3)</td>
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Choose two courses (6 hours) from the following list:

<table>
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<th>Course Code</th>
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<tbody>
<tr>
<td>ACT 101</td>
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<td>Editing Skills for the Office Professional</td>
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<td>Transcription and Office Technology</td>
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</tr>
<tr>
<td>OST 250</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OST 255</td>
<td>Introduction to Business Graphics</td>
<td>3</td>
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</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
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Total Technical Hours 36

Total Credit Hours 42

Desktop Publishing Specialist - 520424029
(Offered at BLC)
Available Completely Online

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<th>Course Title</th>
<th>Credit Hours</th>
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<td>Business Calculations for the Office Professional</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>(3)</td>
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<td>Higher Level Quantitative Reasoning Course</td>
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Total General Education 6

Technical Courses

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<th>Course Title</th>
<th>Credit Hours</th>
<th>Notes</th>
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<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
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<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
<td></td>
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<tr>
<td>OST 130</td>
<td>Typography</td>
<td>3</td>
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</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
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</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Applications</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OST 215</td>
<td>Office Procedures</td>
<td>3</td>
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<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
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<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
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</tr>
<tr>
<td>OST 240</td>
<td>Software Integration</td>
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<td></td>
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<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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Total Technical Hours 38-39

Total Credit Hours 44-45

Financial Assistant - 520424049
(Offered at BLC, BSC, ELC, JFC)
Available Completely Online

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>OST 213</td>
<td>Business Calculations for the Office Professional</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>(3)</td>
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<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
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Total General Education 6
### Technical Courses

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
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<td>Higher Level Accounting Course</td>
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<tr>
<td>ACT 102</td>
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<td></td>
<td>Higher Level Accounting Course</td>
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</tr>
<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
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<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(2-3)</td>
</tr>
</tbody>
</table>

Choose two courses (6 hours) from the following list:

- BAS 120  Personal Finance                                                   | 3       |
- BAS 160  Introduction to Business                                            | 3       |
- ENG 102  Writing II                                                          | 3       |
- OST 150  Transcription and Office Technology                                |         |
- OST 225  Introduction to Desktop Publishing                                 | 3       |
- OST 255  Introduction to Business Graphics                                   | 3       |
- OST 250  Advanced Desktop Publishing                                        | 3       |
- OST 272  Presentation Graphics                                               |         |

**Total Technical Hours** 32-33  
**Total Credit Hours** 38-39

### General Education

<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>
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<tr>
<td>OST 213</td>
<td>Business Calculations for the Office Professional OR</td>
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<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
<td>(3)</td>
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**Total General Education** 6

### Technical Courses

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
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<tr>
<td></td>
<td>Higher Level Accounting Course</td>
<td>(3)</td>
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<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
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<td>Records and Database Management</td>
<td>3</td>
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<tr>
<td>OST 221</td>
<td>Legal Office Simulations</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration</td>
<td>3</td>
</tr>
<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Choose one course (3 hours) from the following:

- BAS 120  Personal Finance                                                   | 3       |
- BAS 160  Introduction to Business                                            | 3       |
- ENG 102  Writing II                                                          | 3       |
- OST 150  Transcription and Office Technology                                |         |
- 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       |

**Total Technical Hours** 36  
**Total Credit Hours** 42

### Office Assistant - 5204024059

(Offered at BLC)

### General Education

<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>
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<tr>
<td>OST 213</td>
<td>Business Calculations for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
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**Total General Education** 6

### Technical Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>OST 215</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration</td>
<td>3</td>
</tr>
<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Choose two courses (6 hours) from the following list:

- BAS 120  Personal Finance                                                   | 3       |
- BAS 160  Introduction to Business                                            | 3       |
- ENG 102  Writing II                                                          | 3       |
- OST 150  Transcription and Office Technology                                |         |
- 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       |

**Total Technical Hours** 30  
**Total Credit Hours** 36

### Certificates

#### Administrative - 5204023039

(Offered at BLC, BSC, HPC, JFC, MYC, OWC)

**Available Completely Online**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 213</td>
<td>Business Calculations for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OST 215</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamental of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 150</td>
<td>Higher level Accounting Course</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 225</td>
<td>Transcription and Office Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credit Hours** 30

### Basic Business Presentation - 5204023119

(Offered at BLC)

**Available Completely Online**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OST 255</td>
<td>Introduction to Business Graphics</td>
<td>3</td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credit Hours** 15
Data Entry Operator - 5204023079

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, MYC, OWC, 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, BSC)

Available Completely Online

ENG 101 Writing I ...................................................................................... 3
OST 108 Editing Skills for the Office Professional .................................... 3
OST 213 Business Calculations for the Office Professional ......................... 3
MAT 105 Business Mathematics OR ....................................................... 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
OST 272 Presentation Graphics .................................................................. 3
Total Credit Hours 27

Financial Assistant Clerk - 5204023129

(Offered at BLC, BSC, HPC, JFC, MYC, OWC)

Available Completely Online

OST 105 Introduction to Information Systems ........................................... 3
ACT 101 Fundamentals of Accounting I OR ............................................. 3
OST 108 Higher Level Accounting Course ............................................... 3
ENG 101 Writing I ...................................................................................... 3
OST 110 Editing Skills for the Office Professional .................................... 3
OST 160 Records and Database Management ......................................... 3
OST 213 Business Calculations for the Office Professional ......................... 3
MAT 105 Business Mathematics OR ....................................................... 3
OST 105 Higher Level Quantitative Reasoning Course ................................ 3
Total Credit Hours 18

Financial Assistant Trainee - 5204023139

(Offered at BLC, BSC, HPC, JFC, MYC, OWC)

Available Completely Online

OST 105 Introduction to Information Systems ........................................... 3
ACT 101 Fundamentals of Accounting I OR ............................................. 3
OST 110 Higher Level Accounting Course ............................................... 3
OST 213 Business Calculations for the Office Professional ......................... 3
MAT 105 Business Mathematics OR ....................................................... 3
OST 105 Higher Level Quantitative Reasoning Course ................................ 3
Total Credit Hours 12

Financial Record Keeper - 5204023069

(Offered at BLC, BSC, JFC, OWC)

Available Completely Online

OST 105 Introduction to Information Systems ........................................... 3
ACT 101 Fundamentals of Accounting I OR ............................................. 3
OST 108 Higher Level Accounting Course ............................................... 3
OST 110 Document Formatting and Word Processing ............................... 3
OST 108 Higher Level Accounting Course ............................................... 3
ENG 101 Writing I ...................................................................................... 3
OST 110 Document Formatting and Word Processing ............................... 3
OST 112 Financial Management OR ....................................................... 3
OST 160 Records and Database Management ......................................... 3
OST 213 Business Calculations for the Office Professional ......................... 3
MAT 105 Business Mathematics OR ....................................................... 3
OST 240 Software Integration ................................................................... 3
Total Credit Hours 30

Integrated Office Skills - 5204023059

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

OST 108 Editing Skills for the Office Professional OR ............................... 3
ENG 101 Writing I ...................................................................................... 3
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 240 Software Integration ................................................................... 3
Total Credit Hours 21

Legal Receptionist - 5204023149

(Offered at BLC, MYC)

OST 105 Introduction to Information Systems ........................................... 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 109 Legal Terminology ..................................................................... 3
Total Credit Hours 15

Receptionist - 5204023089

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

Available Completely Online

OST 105 Introduction to Information Systems ........................................... 3
OST 108 Editing Skills for the Office Professional OR ............................... 3
OST 160 Records and Database Management ......................................... 3
OST 110 Document Formatting and Word Processing ............................... 3
Total Credit Hours 12

Business Administration

The Business Administration Program prepares students for a variety of careers in business. A core curriculum provides students with a foundation of knowledge applicable to any business career. The Business Administration Program offers an Associate in Applied Science degree, diplomas and a variety of certificates in the areas of Accounting, Entrepreneurship, Financial Perspectives, Business, Hospitality Management, Human Resource Management, Industrial Supervision, Informatics, Leadership, Management, Office Systems, Operations Management, Real Estate Management, Sales, Small Business Management, and Team Leadership.

The curriculum is designed for those who seek entry level jobs as well as for currently employed individuals wishing to enhance their skills. A student specializes by choosing from the following Tracks, Diplomas and Certificates:

The Accounting Track / Certificate leads to careers in accounting including bookkeeper, accounting clerk, cost payroll clerk and positions using microcomputer-based systems.

The Business Management Track leads to careers for planning and managing people and other resources within organizations.

The Equine Business Management Track / Certificate provides the knowledge and skills students need to take advantage of various employment opportunities within the horse industry.
The Hospitality Management Track / Certificate prepares students for careers directing specific aspects of hospitality operations and for overall hospitality management.

The Human Resource Management Track / Certificate prepares students for entry-level positions in the human resource field and related occupations.

The Management Track / Certificate prepares the student with broad-based management knowledge and skills which lead to a variety of positions in organizations.

The Marketing and Retailing Track prepares for careers in sales, merchandise management, buying, department supervising, or retail management.

The Real Estate Management Track / Certificate leads to a career in real estate which may include sales, finance, counseling, development, marketing analysis, valuation, and/or property management.

The Organizational Leadership Diploma curriculum is designed to prepare students to manage a department or to become team leaders in team-based or self-managed organizations.

The Small Business Management Diploma / Certificate curricula is designed to prepare students for the position of entrepreneur and business owner and offers the prospective business owner the fundamentals of starting and operating a business.

The Accounting Recordkeeping Specialist Certificate prepares students for entry level employment as a bookkeeper.

The Advanced Business Administration Certificate is designed to be a building block to complete the Associate in Applied Science Degree, Business Administration Core courses.

The Business 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 General Business Certificate prepares the student for positions in supervision, management and general business.

The Operations Management Certificate provides students with the knowledge and skills needed to effectively function as first-line supervisors in an operations environment whether in distribution, services, or manufacturing. It will also increase the understanding of the operations function for non-operations students who will be working in a distribution, services or manufacturing organization.

The Payroll Accounting Specialist Certificate prepares the student for entry level work in payroll processing.

The Public 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 Supervisory Management Certificate prepares the student in the field of front-line supervision.

The Team Leadership Certificate prepares the student for a career in team leadership, supervision and / or management in a variety of different organizations. Modules are available.

**Associate in Applied Science**

**Business Administration - 5202017129**

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

**General Education:**

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<th>Title</th>
<th>Credits</th>
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<tr>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>(3)</td>
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<td>ECO</td>
<td>Any Economics Course</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>3</td>
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<td>MAT 110</td>
<td>Applied Mathematics OR</td>
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<tr>
<td>MAT 150</td>
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<td>Natural Sciences</td>
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**Technical Courses:**

<table>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
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<tr>
<td>ENG 102</td>
<td>Writing II OR</td>
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<td>BAS 160</td>
<td>Introduction to Business</td>
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<tr>
<td>BAS 260</td>
<td>Professional Development and Protocol</td>
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<td>BAS 270</td>
<td>Business Employability Seminar</td>
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<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
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<tr>
<td>BAS 282</td>
<td>Principles of Marketing OR</td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management OR</td>
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<td>MGT 283</td>
<td>Principles of Management</td>
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<td>ACC 201</td>
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<td>ACC 202</td>
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**Core Subtotal**

| Credits | 45 |

**Business Administration Tracks**

**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>
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</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>3</td>
</tr>
<tr>
<td>ACT 286</td>
<td>Financial Accounting Topics</td>
<td>3</td>
</tr>
<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications OR</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>Subtotal</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

**Choose 6 hours (not duplicated from the core) from the following Technical Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
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<tr>
<td>ACT 277</td>
<td>Managerial Accounting Topics</td>
<td>3</td>
</tr>
<tr>
<td>ACT 290</td>
<td>Selected Topics in Accounting (Topic)</td>
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<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>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</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</td>
<td>(1-4)</td>
</tr>
<tr>
<td>Subtotal</td>
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<td>18</td>
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</table>

**Total Credits**

| Credits | 63 |

103
Note: Students in this track must take ENG 102, MAT 150 or higher quantitative reasoning and ECO 201 or ECO 202 as part of the core.

Equine Business Management Track – 520201718
(Offered at BLC)

Choose a total of 3 hours from the following:

- BAS 110: Worksheets in Business Applications OR 3
- CIT 130: Productivity Software OR 3
- OST 240: Software Integration OR 3

Total Credits 63

Equine Business Management Track – 520201718
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Hospitality Management Track - 520201703
(Offered at BLC, ELC, HEC, MDC, SKY, WKC)

Choose 9 hours (not duplicated from the core) from the following Technical Courses.

- BAS 200: Small Business Management OR 3
- BAS 274: Human Resource Management OR 3
- BAS 290: Management, Ethics & Society OR 3
- COE 199: Cooperative Education: Business Administration OR 1-3
- BAS 280: Business Internship OR 1-4
- CUL 105: Applied Introduction to Culinary Arts OR 2
- CUL 125: Sanitation & Safety OR 2
- CUL 270: Human Relations Management OR 3
- CUL 280: Cost & Control OR 3
- HOS 160: Security for the Hospitality Industry OR 3
- HOS 200: Cultural Heritage Tourism OR 3
- HOS 210: Front Office Management OR 3

Choose a total of 3 hours from the following Approved Technical Courses:

- BAS 200: Small Business Management OR 3
- BAS 274: Human Resource Management OR 3
- BAS 280: Business Internship OR 1-4
- COE 199: Cooperative Education: Business Administration OR 1-3
- BAS 212: Introduction to Financial Management OR 3
- BAS 284: Applied Management Skills OR 3
- BAS 288: Personal Finance OR 3
- BAS 288: Person & Organizational Leadership OR 3
- BAS 290: Management, Ethics & Society OR 3
- BAS 299: Selected Topics in Management: (Track Topic) OR 1-3
- BAS 110: Worksheets in Business Applications OR 3
- CIT 130: Productivity Software OR 3
- OST 240: Software Integration OR 3
- HOS 180: Human Relations OR 3

Total Subtotal Credits 18

Total Credits 63

Management Track - 520201708
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Available Completely Online

- BAS 280: Business Internship OR 1-4
- COE 199: Cooperative Education: Business Administration OR 1-3
- BAS 212: Introduction to Financial Management OR 3
- BAS 284: Applied Management Skills OR 3
- BAS 288: Personal Finance OR 3
- BAS 290: Management, Ethics & Society OR 3
- BAS 299: Selected Topics in Management: (Track Topic) OR 1-3
- BAS 110: Worksheets in Business Applications OR 3
- CIT 130: Productivity Software OR 3
- OST 240: Software Integration OR 3
- BAS 284: Applied Management Skills OR 3

Total Subtotal Credits 18

*Must be a General Education Quantitative Reasoning that is different from core Quantitative Reasoning selection.
Choose 9 hours (not duplicated from the core) from the following Management and/or Technical Courses with no more than 3 hours selected from Technical Courses.

Management Courses:
- BAS 170 Entrepreneurship ......................................... 3
- BAS 200 Small Business Management ............................ 3
- BAS 201 Customer Service Improvement Skills ............ 3
- BAS 212 Introduction to Financial Management ............. 3
- BAS 256 International Business .................................. 3
- BAS 274 Human Resource Management ........................ 3
- BAS 287 Supervisory Management ................................ 3
- BAS 288 Personal and Organizational Leadership .......... 3
- BAS 289 Operations Management ................................. 3
- BAS 290 Management, Ethics & Society ......................... 3
- BAS 291 Retail Management ......................................... 3
- BAS 299 Selected Topics in Management: (Track Topic) .... 1-3
- OST 275 Office Management ....................................... 3

Technical Courses:
- ACT 177 Entrepreneurial Accounting ............................ 3
- ACT 196 Payroll Accounting ......................................... 3
- BAS 110 Worksheets in Business Applications ............... 3
- BAS 120 Personal Finance ............................................ 3
- BAS 125 Social Media Marketing: Fundamental Concepts, Skills, and Strategies ............................................. 3
- BAS 126 Social Media Marketing: Product Management and, Implementation Strategies ..................................... 3
- ENG 203 Business Writing OR ...................................... (3)
- COE 199 Cooperative Education: (Business Administration) 1-3 OR
- BAS 280 Business Internship ....................................... (1-4)
- CIT 155 Web Page Development ................................... 3
- ECO 150 Introduction to Global Economics .................... 3
- ECO 201 Principles of Microeconomics OR ..................... 3
- ECO 202 Principles of Macroeconomics ......................... (3)
- ENG 203 Business Writing OR ..................................... 3
- OST 235 Business Communications Technology .............. (3)
- LOM 100 Introduction to Logistics Management ............. 3
- QMS 101 Introduction to Quality Systems ....................... 3

Total Credit 18

Marketing and Retailing Track –520201719
(Offered at BLC, OWC)

Note: Students in this track must take ENG 102, MAT 150 or higher quantitative reasoning and ECO 201 or ECO 202 as part of the core.

Required:
- MKT 155 Personal Selling OR ........................................ 3
- COE 199 Cooperative Education .................................... (3)
- MKT 290 Advertising and Promotion ............................. 3
- MKT 291 Retail Management ......................................... 3
- MKT 293 Buying and Merchandising .............................. 3
- BAS 110 Worksheets in Business Applications ............... 3
- CIT 130 Productivity Software OR ................................. (3)
- OST 240 Software Integration ....................................... (3)

Choose 3 hours from the following:
- BAS 120 Personal Finance ............................................ 3
- BAS 125 Social Media Marketing: Fundamental Concepts, Skills, and Strategies ............................................. 3
- BAS 126 Social Media Marketing: Product Management and, Implementation Strategies ..................................... 3
- COE 199 Cooperative Education .................................... 1-3
- ECO 202 Principles of Macroeconomics ........................ 3
- ENG 203 Business Writing .......................................... 3

MGT 200 Small Business Management ........................................ 3
MGT 258 Project Management ............................................. 3
MGT 288 Self Management ................................................. 3
MKT 299 Selected Topics in Marketing: (Topic) ................. 1-3

Subtotal 18

Total Credits 63

Real Estate Management Track - 520201706
(Offered at BSC, BLC, ELC, WKC)

Required:
- REA 100 Real Estate Principles I .................................. 3
- REA 121 Appraising ..................................................... 3
- REA 225 Real Estate Finance ........................................ 3
- REA 230 Real Estate Law ............................................. 3

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Real Estate Program Coordinator.
- REA 120 Real Estate Marketing ..................................... 3
- REA 122 Construction and Blueprints ............................. 3
- REA 200 Real Estate Principles II .................................. 3
- REA 201 Property Management ..................................... 3
- REA 202 Real Estate Investments I ................................. 3
- REA 203 Commercial and Industrial Property ............... 3
- REA 204 Land Planning and Development .................... 3
- REA 205 Farm Brokerage ............................................. 3
- REA 212 Real Estate Investments II ................................. 3
- REA 220 Real Estate Brokerage Management .................. 3
- COE 199 Cooperative Education: (Business Administration) 1-3 OR
- BAS 280 Business Internship ....................................... (1-4)

Subtotal 18

Total Credits 63

Diplomas

Organizational Leadership - 5202014029
(Offered at BSC, ELC, FJC, MDC, OWC, SKF, SMC, WKC)

Available Completely Online

General Education:

Area 1 =
- ENG 101 Writing I OR ...................................................... 3
- COM 181 Basic Public Speaking OR .................................... 3
- COM 252 Introduction to Interpersonal Communication ........ 3

Area 2 =
- ECO Any Economics Course ......................................... 3

General Education Subtotal 6

Required Technical:
- CIT 105 Introduction to Computers OR ............................ 3
- OST 105 Introduction to Information Systems .................... (3)
- BAS 160 Introduction to Business .................................... 3
- BAS 283 Principles of Management .................................. 3
- BAS 284 Applied Management Skills .............................. 3
- BAS 287 Supervisory Management .................................. 3
- BAS 288 Personal and Organizational Leadership ............. 3
- ACC 201 Financial Accounting OR .................................... 3
- BAS 280 Business Internship OR .................................... 1-4
- COE 199 Cooperative Education .................................... (1-3)

Required Technical Subtotal 22-25
Choose 11-12 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td>3</td>
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<td>BAS 260</td>
<td>Professional Development and Protocol</td>
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<td>Introduction to Business Law</td>
<td>3</td>
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<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</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 OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Quantitative Reasoning Course</td>
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</table>

Approved Technical Courses 11-12

Total Credits 39-43

Small Business Management - 5202014039
(Offered BSC, ELC, HZC, JFC, MDC, SKY, SMC, WKC)
Available Completely Online

General Education:

Area 1=

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<th>Title</th>
<th>Credits</th>
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<tr>
<td>ENG 101</td>
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<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
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Area 2=

<table>
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<tr>
<td>ECO</td>
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General Education Subtotal 6

Required Technical:

<table>
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<tr>
<td>CIT 105</td>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship*</td>
<td>3</td>
</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management * OR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Second Quantitative Reasoning Course*</td>
<td>3</td>
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<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
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<tr>
<td>ACT 177</td>
<td>Entrepreneurial Accounting</td>
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<tr>
<td>BAS 280</td>
<td>Business Internship OR</td>
<td>1-4</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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</table>

Required Technical Subtotal 25-28

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>
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<th>Credits</th>
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<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship*</td>
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<tr>
<td>BAS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management * OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
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<tr>
<td>BAS 284</td>
<td>Applied Management Skills</td>
<td>3</td>
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<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
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<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
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<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
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<td>OST 240</td>
<td>Software Integration OR</td>
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<td>BAS 110</td>
<td>Worksheets in Business Applications</td>
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</table>

Approved Technical Courses 6

Total Credits 37-40

Certificates

Accounting - 5202013119
(Offered at ASC, BSC, ELC, HEC, OW, MDC, MYC, SEC, SKY, WKC)
Available Completely Online

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
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<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
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Choose 12 hours from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

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<tr>
<td>ACT 196</td>
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<tr>
<td>ACT 277</td>
<td>Managerial Accounting Topics</td>
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<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td>3</td>
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<tr>
<td>ACT 281</td>
<td>Individual Taxation</td>
<td>3</td>
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<tr>
<td>ACT 286</td>
<td>Financial Accounting Topics</td>
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<td>ACT 290</td>
<td>Selected Topics in Accounting (Topic)</td>
<td>1-3</td>
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<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>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
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<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>1-4</td>
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</table>

Total Credits 18

Accounting Recordkeeping Specialist - 5202013429
(Offered at ASC, BSC, ELC, HEC, OW, MDC, MYC, SEC, SKY, WKC)
Available Completely Online

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
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<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
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<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACT 281</td>
<td>Individual Taxation</td>
<td>3</td>
</tr>
<tr>
<td>ACT 286</td>
<td>Financial Accounting Topics</td>
<td>3</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
<td>3</td>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
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</table>

Total Credits 18

Advanced Business Administration - 5202013129
(Offered at ASC, BSC, ELC, HEC, HP, HZC, JFC, MDC, MYC, OW, SEC, SM, WKC)
Available Completely Online

Required:

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BAS 284</td>
<td>Applied Management Skills</td>
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</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
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<tr>
<td>OST 240</td>
<td>Software Integration OR</td>
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<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications</td>
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</table>

Total Credits 15

Business Transfer - 5202013149
(Offered at ASC, BSC, ELC, GTW, HEC, HP, HZC, JFC, MDC, MYC, OW, SEC, SKY, SM, WKC)
Available Completely Online

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</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>ECO 201</td>
<td>Principles of Microeconomics</td>
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<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
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<tr>
<td>STA 220</td>
<td>Statistics</td>
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</table>

Total Credits 18

*Not allowed as an Approved Technical Course if course has been taken as a required course.
Entrepreneurship – 5202013379
(Offered at ELC, GTW, HEC, HPC, MDC, OWC, SEC, SKY, WKC)

Required:
ACC 201 Financial Accounting OR .................................................. 3
ACT 177 Entrepreneurial Accounting ............................................. (3)
BAS 170 Entrepreneurship .................................................................. 3
BAS 282 Principles of Marketing ....................................................... 3
BAS 288 Personal and Organizational Leadership ............................. 3

Choose 3 credit hours from the following Technical Courses:
BAS 110 Work Business Applications ........................................... 3
BAS 125 Social Media Marketing: Fundamental Concepts, Skills, and Strategies ................................................................. 3
BAS 201 Customer Service Improvement Skills ................................ 3

Total Credits 15

Equine Business Management - 5202013479
(Offered at BLC)

Required:
EQM 100 Introduction to Equine Studies ......................................... 3
EQM 120 Introduction to Commercial Breeding ............................... 3
EQM 140 Equine Business Management I ....................................... 3
BAS 160 Introduction to Business ...................................................... 3
EQM 240 Equine Business Management II ...................................... 3
EQM 246 Current Trends in the Equine Industry .............................. 3
PSY 110 General Psychology .......................................................... 3
MCT 101 Quality Management Principles ...................................... 3

Total Credits 23

Financial Perspectives - 5202013519
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
Available Completely Online

Required:
ACC 201 Financial Accounting ....................................................... 3
BAS 120 Personal Finance ................................................................ 3
BAS 160 Introductions to Business ................................................ 3
BAS 212 Introduction to Financial Management OR ..................... 3
BAS 293 Principles of Finance .......................................................... 3

Choose 3 credit hours from the following Technical Courses:
BAS 290 Management, Ethics, & Society ....................................... 3
PHI 150 Business Ethics ................................................................ 3
MGT 240 Business Ethics and Self-Management ......................... 3

Total Credits 15

General Business - 5202013619
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
Available Completely Online

Required:
BAS 160 Introduction to Business .................................................. 3
CIT 105 Introduction to Computers OR .......................................... 3
OST 105 Introduction to Information Systems (3) ....................... 3
ACC 201 Financial Accounting .................................................... 3
ECO 201 Any Economics Course .................................................. 3

Total Credits 12

Hospitality Management - 5202013719
(Offered at BLC, BSC, HZC, SEC, WKC)

Required:
HOS 100 Introduction to Hospitality .............................................. 3
CUL 100 Culinary Arts Profession .................................................. 2
HOS 282 Tourism Marketing ........................................................... 3

Total Credit Hours 15

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 ......................................................... (1-4)
CUL 105 Applied Fundamentals of the Culinary Arts Profession ...... 2
CUL 125 Sanitation & Safety .......................................................... 3
CUL 270 Human Relations Management ...................................... 3
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

Total Credits 17

Human Resource Management - 5202013359
(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, SEC, SKY, WKC)

Required:
BAS 274 Human Resource Management ...................................... 3
BAS 287 Supervisory Management ............................................... 3
ACT 196 Payroll Accounting ........................................................... 3

Choose 9 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.
BAS 201 Customer Service Improvement Skills ......................... 3
BAS 212 Introduction to Financial Management OR ................... 3
BAS 280 Business Internship OR .................................................. 1-4
COE 199 Cooperative Education ................................................. (1-3)
CIT 130 Productivity Software OR .............................................. 3
OST 240 Software Integration OR ................................................ (3)
BAS 110 Work Business Applications .......................................... (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 ...................................................... 1-3
PSY 180 Human Relations ........................................................... 3

Total Credits 18

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
BAS 256 International Business .................................................... 3
BAS 260 Professional Development & Protocol.......................... 2
BAS 274 Human Resource Management .................................... 3
BAS 287 Supervisory Management .............................................. 3
BAS 288 Person & Organizational Leadership ............................ 3
BAS 289 Operations Management ............................................... 3
BAS 290 Management, Ethics & Society .................................... 3
BAS 291 Retail Management ....................................................... 3
BAS 299 Selected Topics Management: (Track Topic) ............... 1-3
OST 275 Office Management ...................................................... 3

Total Credit Hours 15

107
Operations Management - 5202013369
(Offered at BLC, BSC, GTW, HEC, HPC, MYC, SEC, WKC)

Required:
- BAS 160 Introduction to Business ................................................. 3
- BAS 287 Supervisory Management OR ........................................... 3
- BAS 288 Personal & Organizational Leadership OR ....................... (3)
- QMS 101 Introduction to Quality Systems ...................................... 3
- BAS 289 Operations Management OR ............................................ 3
- MFG 256 Production Management ................................................... (3)
- COM 181 Basic Public Speaking OR ................................................. (3)
- COM 252 Introduction to Interpersonal Skills ................................... (3)

Total Credits 15

Payroll Accounting Specialist - 5202013499
(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, OWC, SEC, SKY, WKC)

Required:
- ACC 201 Financial Accounting OR .................................................. 3
- ACT 196 Payroll Accounting ............................................................... 3
- ACT 279 Computerized Accounting Systems .................................... 3

Total Credits 9

Public Leadership - 5202013199
(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, SEC, WKC)

Required:
- BAS 288 Personal and Organizational Leadership ............................ 3
- BAS 160 Introduction to Business OR ............................................. 3
- BAS 170 Entrepreneurship .............................................................. (3)
- BAS 283 Principles of Management OR .......................................... 3
- BAS 287 Supervisory Management .................................................. (3)
- COM 181 Basic Public Speaking OR ................................................ (3)
- COM 252 Introduction to Interpersonal Communication .................... (3)

Choose 3 hours from the following Technical Courses.
- BAS 125 Social Media Marketing: Fundamental Concepts, Skills, and Strategies ................................................................. 3
- BAS 282 Principles of Marketing ....................................................... 3
- BAS 299 Selected Topics in Business Management (Track Topic) ........ 3

Total Credits 15

Real Estate Pre-Licensing - 5202013239
(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, SEC, WKC)

Required:
- REA 100 Real Estate Principles I ...................................................... 3

Choose 3 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.
- REA 120 Real Estate Marketing ....................................................... 3
- REA 200 Real Estate Principles II ..................................................... 3
- REA 225 Real Estate Finance ............................................................. 3
- REA 230 Real Estate Law ................................................................. 3

Total Credits 6

Real Estate Residential - 5202013249
(Offered at BSC, ELC, MDC, MYC, SEC, WKC)

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

Choose 6 hours from the following Approved Technical Courses.
- REA 121 Appraising ................................................................. 3
- REA 122 Construction and Blueprints ......................................... 3
- REA 200 Real Estate Principles II .................................................. 3

REA 201 Property Management .......................................................... 3
REA 225 Real Estate Finance .............................................................. 3
REA 230 Real Estate Law ................................................................. 3
Total Credits 12

Small Business Management - 5202013269
(Offered at ASC, BSC, ELC, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
Available Completely Online

Required:
- BAS 160 Introduction to Business OR ............................................. 3
- BAS 170 Entrepreneurship .............................................................. (3)
- BAS 200 Small Business Management ........................................... 3
- BAS 212 Introduction to Financial Management OR ....................... 3
- BAS 282 Principles of Marketing ..................................................... 3
- ACC 201 Financial Accounting OR .................................................. 3
- ACT 177 Entrepreneurial Accounting ............................................ (3)
- BAS 287 Supervisory Management OR ........................................... 3
- BAS 288 Personal & Organization Leadership ................................ (3)

Total Credits 18

Supervisory Management - 5202013279
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SKY, WKC)
Available Completely Online

Required:
- CIT 105 Introduction to Computers OR ............................................ 3
- OST 105 Introduction to Information Systems ................................... (3)
- OST 235 Business Communications Technology ............................ 3
- BAS 160 Introduction to Business ................................................... 3
- BAS 287 Supervisory 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 201 Customer Service Improvement Skills ................................ 3
- BAS 283 Principles of Management ................................................ 3
- BAS 274 Human Resource Management .......................................... 3
- BAS 288 Personal and Organizational Leadership ............................ 3
- BAS 290 Management, Ethics & Society .......................................... 3
- OST 275 Office Management .......................................................... 3

Total Credits 18

Team Leadership - 5202013309
(Offered at BLC, BSC, ELC, HEC, 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 ............................ 3
- COM 181 Basic Public Speaking OR ................................................. 3
- COM 252 Introduction to Interpersonal Communications ................... (3)
- BAS 287 Supervisory Management ................................................ 3
- BAS 288 Personal & Organizational Leadership ................................ 3

Choose 3 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.
- BAS 201 Customer Service Improvement Skills ................................ 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 Coder, 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 contingent upon achievement of a grade of “C” or better in all required general education and technical courses and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Medical Information Technology program does not accept non-general education courses older than 5 years from returning or transfer students without the consent from the program coordinator.

### Associate in Applied Science

#### Medical Information Technology - 5107167019

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

**General Education:**

<table>
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*Subtotal* 19

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

**Technical Core:**

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*Subtotal* 30

#### Electronic Medical Records Track - 510716707

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

**Available Completely Online**

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*Courses Approved by Program Coordinator** 6

*Subtotal* 15

**Total** 64

#### Medical Administrative Track - 510716705

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

**Available Completely Online**

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*Course Approved by Program Coordinator** 3

*Subtotal* 15

**Total** 64

#### Medical Coding Track - 510716706

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

**Available Completely Online**

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*Course Approved by Program Coordinator** 3

*Subtotal* 15

**Total** 64

#### Medical Office Management Track - 510716709

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

**Available Completely Online**

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*Course Approved by Program Coordinator** 3

*Subtotal* 15

**Total** 64

#### Medical Transcription Track - 510716708

*(Offered at BLC, BSC, ELC, HZC, MYC, OWC, SMC, WKC)*

**Available Completely Online**

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*Subtotal* 15

**Total** 64

### Diplomas

#### Medical Administrative Assistant - 5107164019

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

**Available Completely Online**

**General Education / Applied Academics**

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*Subtotal* 7

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

**Subtotal** 15

**Total** 64
### Technical or Support Courses

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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin</td>
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**Course Approved by Program Coordinator***

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**Total 42**

### Medical Records Specialist - 5107164069

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

**Available Completely Online**

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**Subtotal 7**

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

### Technical or Support Courses

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**Subtotal 33**

**Total 40**

### Hospital Admissions Specialist - 5107163029

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

**Available Completely Online**

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**Total 28-30**

### Medical Coding - 5107163079

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

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**Total 30**

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

### Medical Receptionist - 5107163110

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

**Available Completely Online**

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<td>CIT 105</td>
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**Total 15**

### Certificates

**Electronic Health Records Specialist – 5107163069**

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

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**Total 15**

110
### Medical Scribe – 5107163099
*Offered by BSC, BLC, ELC, HZC, JFC, MDC, MYC, OWC, SKY, SMC*

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<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</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 108</td>
<td>Editing Skills for Office Professionals OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 228</td>
<td>Electronic Medical Records</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 106</td>
<td>Introduction to Medical Transcription</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 230</td>
<td>Medical Information Management</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems OR</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</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>
<td>(3)</td>
</tr>
</tbody>
</table>

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

### Medical Transcriptionist – 5107163089
*Offered by BSC, BLC, ELC, HZC, JFC, MDC, MYC, OWC, SKY, SMC, WK*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</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>
</tr>
<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>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 106</td>
<td>Introduction to Medical Transcription</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>
<td>(3)</td>
</tr>
</tbody>
</table>

Course Approved by Program Coordinator**3

**Total** 24

### Medical Unit Coordinator - 5107163019
*Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WK*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory*</td>
<td>4</td>
</tr>
<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>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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</tr>
</tbody>
</table>

Course Approved by Program Coordinator**3

**Total** 31

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

**Courses Approved by the Program Coordinator suggestions: Any MIT course, BAS course, OST course, ACC course, CIT course, or AHS course.

### Supply Chain Management

The Supply Chain Management AAS degree incorporates knowledge of the field of logistics, supply chain management, quality management, lean concepts and application, business and operations management, critical communication skills, and digital literacy required for successful employment in the logistics industry. The program will prepare students to perform functions in the modern logistics and supply chain management environment as well as give the preparation to obtain two national industry credentials (CLA and CLT) as a result.

The Supply Chain Specialist Certificate program prepares students for skilled entry-level positions in the field of Logistics. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Quality Technician Certificate program prepares students with quality management knowledge and strategic concepts of planning as a proactive catalyst for organizational and quality improvement in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Operations Certificate program provides students with knowledge in business, operations, and project management leading to a variety of positions in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

### Associate in Applied Science

**Total Credits 61-63**

### General Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>(3)</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Contemporary Economic Issues OR</td>
<td>(3)</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics OR</td>
<td>(3)</td>
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<td>MAT 110</td>
<td>Applied Mathematics or Higher Quantitative Reasoning</td>
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Natural Sciences ........................................ 3
Heritage/Humanities ..................................... 3

**Subtotal** 18

### Technical Courses

<table>
<thead>
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<th>Course Title</th>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 256</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organization Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management OR</td>
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</tr>
<tr>
<td>MGT 256</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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<tr>
<td>LOM 101</td>
<td>Transportation</td>
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<td>LOM 102</td>
<td>Supply Chain Management</td>
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</tr>
<tr>
<td>LOM 202</td>
<td>Applied Supply Chain Management</td>
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<td>LOM 210</td>
<td>Lean for Logistics</td>
<td>3</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>BAS 201</td>
<td>Customer Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>QMS 212</td>
<td>Project Management OR</td>
<td>3</td>
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<tr>
<td>MGT 258</td>
<td>Project Management OR</td>
<td>(3)</td>
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<td>QMS 251</td>
<td>Strategic Quality Planning</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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**Subtotal** 43-45

**Total Credits** 61-63
Certificate

Logistics Operations – 5202033079
(Of offered at ELC, GTW, HPC, MDC)

<table>
<thead>
<tr>
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<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>QMS 212</td>
<td>Project Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT 258</td>
<td>Project Management OR</td>
<td>3</td>
</tr>
<tr>
<td>QMS 251</td>
<td>Strategic Quality Planning</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Interpersonal Communications</td>
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<td><strong>Total Credits</strong></td>
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Logistics Quality Technician – 5202033069
(Of offered at BLC, ELC, GTW, HPC, MDC)

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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</tr>
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<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 212</td>
<td>Project Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT 258</td>
<td>Project Management OR</td>
<td>3</td>
</tr>
<tr>
<td>QMS 251</td>
<td>Strategic Quality Planning</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Interpersonal Communications</td>
<td>3</td>
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Supply Chain Specialist – 5202033059
(Of offered at BLC, GTW, HPC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Interpersonal Communications</td>
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<td><strong>Total Credits</strong></td>
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</table>

Business Communication

The certificate in business communication will prepare students for a career in the rapidly evolving and expanding community of global enterprise. Students will learn both theoretical and applied lessons concerning effective management, team building, evaluation, message construction, effective listening, and standards for establishing mentorships through networking and workplace integration and socialization. They will complete a 5 course, 15 credit hour sequence with 2 courses selected from among class options in business and 3 courses selected from among class options in communication. There is no definitive time frame for a student to complete the certificate and they may choose to incorporate it as part of their broader degree attainment.

Certificate

Business Communication – 5202013469
(Of offered at ASC, BSC, WOC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
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</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
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<tr>
<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>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
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</table>

Business Foundations

The Business Foundations certificate incorporates foundational knowledge of finance, quality systems, and external environmental factors that affect businesses today. The certificate will prepare students to perform functions in an integrated business environment and better understand organizational strategies.

Certificate

Business Foundations – 5201013029
(Of offered at ASC, BSC, HZC, GTW, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting OR</td>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting AND</td>
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<tr>
<td>ACT 102</td>
<td>Fundamentals of Accounting II</td>
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</tr>
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<td>ECO 101</td>
<td>Contemporary Economic Issues OR</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics OR</td>
<td>3</td>
</tr>
<tr>
<td>QMS 240</td>
<td>Statistics for Quality I***</td>
<td>3</td>
</tr>
<tr>
<td>QMS 212</td>
<td>Project Management</td>
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<tr>
<td><strong>Total Credit Hours</strong></td>
<td><strong>18-21</strong></td>
<td></td>
</tr>
</tbody>
</table>

Select 9 (nine) credit hours from the following technical courses*:

- BAS 267 Introduction to Business Law
- BAS 290 Management, Ethics & Society**
- BAS 288 Personal & Organizational Leadership
- QMS 340 Statistics for Quality I****
- BAS 291 Management, Ethics & Society
- QMS 212 Project Management

**BAS 290 pre-requisite is BAS 283 or Consent of Instructor. BAS 283 pre-requisite is BAS 60 or Consent of Instructor.

Certificate

Career Facilitator – 1311013019
(Of offered at )

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SDC 151</td>
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<td>3</td>
</tr>
<tr>
<td>SDC 152</td>
<td>Facilitating Career Development 2</td>
<td>3</td>
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<tr>
<td>SDC 153</td>
<td>Career Facilitator Practicum</td>
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</tr>
<tr>
<td>SDC 154</td>
<td>Oral Communication Course</td>
<td>3</td>
</tr>
<tr>
<td>SDC 155</td>
<td>Written Communication Course</td>
<td>3</td>
</tr>
<tr>
<td>SDC 150</td>
<td>Social/Behavioral Science Course</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td></td>
</tr>
</tbody>
</table>
Certified Medical Technician
The program bundles the current classes of NAA100, PHB152, PHB170 and CPR100. Once all of these classes are completed successfully the graduate will be eligible to receive the certified medical technician certificate. The program allows the graduate to either enter the healthcare field with a varied technical skill set and/or enter a healthcare program.

Certificates
Certified Medical Technician – 5108993039
(Offered at ASC, MDC, MYC, SMH)
CPR 100 CPR for Healthcare Professionals ........................................... 1
NAA 100 Nursing Assistant Skills I .......................................................... 3
PHB 152 Phlebotomy: Clinical Experience ........................................... 1
PHB 170 Applied Phlebotomy .................................................................. 3
Total 8

Civil Engineering Technology
The Civil Engineering Technology program is an Associates of Applied Science program designed to offer students the training necessary to establish careers in civil engineering technology fields. Career options include materials testing, commercial, residential and highway surveying; highway construction management; construction management; construction estimation; construction documentation; construction site design and waste-water management.

The Civil Engineering Technology Program will focus on the field tasks and hands on aspects of construction.

Associate in Applied Science
Civil Engineering Technology - 1502017019
(Offered at BLC, BSC)

Required
ENG 101 Writing* ............................................................................. 3
ENG 102 Writing II ........................................................................... 3
CAD 100 Introduction to Computer-Aided Design OR ............... 3
ACH 185 Computer-Aided Drafting I .................................................. (3)
MA 109 College Algebra* ................................................................. 3
Oral Communications Course* ...................................................... 3
PHY 211 General Physics* ............................................................... 5
Social/Behavioral Sciences Course* .................................................. 3
Core
ACH 160 Building Materials and Construction I ......................... 3
ACH 225 Structures .................................................................. 3
CE 211 Surveying ..................................................................... 4
CET 150 Civil Engineering Graphics .............................................. 3
CET 200 Civil Engineering Materials ............................................ 3
CET 210 Structural Analysis and Design ..................................... 3
CET 220 Intermediate Surveying .................................................. 4
CET 260 Hydrology and Drainage .................................................. 3
MA 112 Trigonometry .............................................................. 2
Elective .............................................................................. 3
Technical Electives .................................................................. 9
Subtotal 40
Total 67

Technical Electives**
ACH 100 Construction Documents I .............................................. 3
ACH 150 Construction Documents II .............................................. 3
ACH 161 Building Materials and Construction II .................. 3
ACH 285 Computer-Aided Drafting II ......................................... 3
ACH 290 Building Codes I ............................................................. 3
ACH 291 Construction Management ............................................. 3
ACH 292 Building Codes II ............................................................ 3
ACH 294 Specification Writing ....................................................... 3
ACH 297 Estimating Techniques ..................................................... 3
ACH 298 Computer 3D Modeling .................................................. 3
CAD 200 Intermediate Computer-Aided Design ....................... 4
CET 280 Highway Design ............................................................. 3
CET 295 Independent Problems .................................................... 1-4
COE 199 Cooperative Education: CET .......................................... 3
GIS 110 Spatial Data Analysis and Map Interpretation .............. 3
GIS 120 Introduction to Geographic Information Systems .......... 3
GIS 210 Advanced Topics in GIS ................................................... 3
GLY 220 Principles of Physical Geology ........................................ 4
* Satisfies General Education requirement for AAS degree
**Other course(s) approved by program coordinator

Community Dental Health Coordinator
This program is designed for graduates of a Commission on Dental Accreditation (CODA) accredited Dental Hygiene program who are interested in working in community dental health as Community Dental Health Coordinators (CDHCs). A CDHC is a Community Health Worker (CHW) with a focused skill set pertaining to oral health. CDHCs provide oral health education, prevention intervention, and low level dental care while helping patients navigate the public health system in pursuit of oral health care.

Certificate
Community Dental Health Coordinator – 5122083009
(Offered at BSC)
CDH 110 Dental Health Communication Skills ......................... 3
CDH 115 Dental Health Coordination, Documentation, Reporting, and Finance ........................................... 3
CDH 125 Dental Health Teaching and Learning Skills ............ 2
CDH 220 Dental Health Advocacy and Outreach ..................... 3
CDH 245 Community Dental Health Coordinator Internship .... 6
Total 17

Community Health Worker
The technical Certificate will prepare students for a scope of practice for community health workers highlighting six central roles of: communication, organizational and community outreach, advocacy, health coaching, organization, and legal/ethics of the profession. The program will consist of on-line and in-person lab experience.

Certificate
Community Health Worker – 5115043010
(Offered at )
CHW 101 Communication for Community Health Worker .......... 1
CHW 102 Organizational and Community Outreach .................. 1
CHW 103 Advocacy .............................................................. 1
CHW 104 Health Coaching ......................................................... 1
CHW 105 Organization of Community Health Worker ............. 1
CHW 106 Legal and Ethics for Community Health Worker ....... 1
Total 6
# Computer Aided Drafting and Design

A computer aided drafter and designer is a technical specialist with broad-based skills for architectural, civil, mechanical, and manufacturing fields. In this program, the students are taught manual drafting techniques, 2D and 3D CAD, and 3D printing. Specific skills taught include, but are not limited to, lettering, geometric construction, orthographic projections, dimensioning and tolerancing, and related technical processes. These skills are required to transform specifications and instructions of architects, designers, and engineers into complete and precise drawings. The drafter is a skilled technician with a thorough understanding of the graphic language and is an indispensable contributor to the engineering design team.

Progression in the Computer Aided Drafting and Design program is contingent upon achievement of a grade of "C" or greater in each technical and mathematics course with maintenance of a 2.0 cumulative grade point average or above (on a 4 scale).

### Associate in Applied Science

#### Computer Aided Drafting and Design - 1513017029

(Offered at BLC, BSC, ELC)

<table>
<thead>
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</thead>
<tbody>
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<tr>
<td>Quantitative Reasoning (MAT 105 excluded) ..................</td>
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<tr>
<td>Natural Sciences .............................................</td>
</tr>
<tr>
<td>Social/Behavioral Sciences ..................................</td>
</tr>
<tr>
<td>Heritage/Humanities .........................................</td>
</tr>
<tr>
<td>Oral Communications .........................................</td>
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<table>
<thead>
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<tbody>
<tr>
<td>CAD 100 Introduction to Computer Aided Design ............</td>
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<tr>
<td>CAD 102 Drafting Fundamentals ................................</td>
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<tr>
<td>CAD 112 Engineering Graphics ..................................</td>
</tr>
<tr>
<td>CAD 200 Intermediate Computer Aided Design ................</td>
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<tr>
<td>CAD 201 Parametric Modeling ..................................</td>
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<td>CAD 298 Practicum OR ..........................................</td>
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<td>CAD 299 Cooperative Education (1-3) .........................</td>
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<table>
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<tbody>
<tr>
<td>CAD 208 Introduction to Surveying ................................</td>
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<tr>
<td>CAD 120 Introduction to Architecture ................................</td>
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<tr>
<td>CAD 130 Descriptive Geometry ....................................</td>
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<td>CAD 150 Programming in CAD .....................................</td>
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<tr>
<td>CAD 212 Industrial Drafting Processes ..........................</td>
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<td>CAD 216 Building Information Modeling ..........................</td>
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<td>CAD 222 Mechanical Design ........................................</td>
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<td>CAD 220 Architectural Design .....................................</td>
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<td>CAD 230 Construction Techniques ..................................</td>
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<tr>
<td>CAD 240 Advanced Dimensioning and Measurement ..............</td>
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<td>CAD 222 Architectural Design .....................................</td>
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<tr>
<td>CAD 222 Mechanical Design ........................................</td>
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</table>

### Diplomas

#### Computer Aided Drafting and Design - 1513014049

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

Available Completely Online

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<thead>
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<tr>
<td>CAD 108 Introduction to Computer Aided Design ............</td>
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<tr>
<td>CAD 102 Drafting Fundamentals ................................</td>
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<tr>
<td>CAD 112 Engineering Graphics ..................................</td>
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<tr>
<td>CAD 200 Intermediate Computer Aided Design ................</td>
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<tr>
<td>CAD 201 Parametric Modeling ..................................</td>
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<tr>
<td>CAD 298 Practicum OR ..........................................</td>
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<td>CAD 299 Cooperative Education (1-3) .........................</td>
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<table>
<thead>
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<th>Technical Electives:</th>
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<tbody>
<tr>
<td>CAD 108 Introduction to Surveying ................................</td>
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<tr>
<td>CAD 130 Descriptive Geometry ....................................</td>
</tr>
<tr>
<td>CAD 150 Programming in CAD .....................................</td>
</tr>
<tr>
<td>CAD 200 Intermediate Computer Aided Design ................</td>
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<tr>
<td>CAD 201 Parametric Modeling ..................................</td>
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<tr>
<td>CAD 298 Practicum OR ..........................................</td>
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### Certificates

#### Architectural Designer – 1513031009

(Offered at BLC, HZC, HPC, WKC)

<table>
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<tr>
<th>Certificate Options:</th>
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<tr>
<td>BRX 120 Basic Blueprint Reading ..................................</td>
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<tr>
<td>BRX 220 Construction Blueprint Reading ........................</td>
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<td><strong>Total Credits</strong> 18-19</td>
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## Building Information Modeling – 1513013119
*(Offered at BLC, HZC)*

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<tr>
<td>ACH 160</td>
<td>Building Materials and Construction I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACH 291</td>
<td>Construction Management</td>
<td>(3)</td>
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<tr>
<td>CAD 120</td>
<td>Introduction to Architecture</td>
<td>4</td>
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<tr>
<td>CAD 216</td>
<td>Building Information Modeling</td>
<td>4</td>
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<tr>
<td>CAD 230</td>
<td>Construction Techniques</td>
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### Civil Drafter - 1513013049
*(Offered at ASC, BLC, BSC, HZC, SEC)*

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

**Technical Core:**
- CAD 100 Introduction to Computer Aided Design .......................... 3
- CAD 102 Drafting Fundamentals ............................................. 4
- CAD 112 Engineering Graphics ............................................. 4

**Subtotal** 11

**Surveying Core:**
Choose 9-12 hours from the following courses:
- CAD 108 Introduction to Surveying ........................................ 3
- CAD 130 Descriptive Geometry ............................................. 4
- SMT 110 Principles of Surveying .......................................... 3
- SMT 130 Land Surveying Graphics ......................................... 3
- SMT 160 Construction Surveying ........................................... 3
- SMT 210 Advanced Surveying Measurement ................................ 3
- SMT 220 Surveying Lab ..................................................... 3
- SMT 230 Land Boundary Location .......................................... 3
- SMT 250 Mine Surveying .................................................... 3

**Subtotal** 9-12

**Total Credits** 23-26

## Technical Core:
- CAD 100 Introduction to Computer Aided Design .......................... 3
- CAD 102 Drafting Fundamentals ............................................. 4
- CAD 112 Engineering Graphics ............................................. 4
- CAD 200 Intermediate Computer Aided Design .......................... 4
- Technical Elective ......................................................... 3-4

**Subtotal** 18-19

## Computer & Information Technologies

### 3D Modeler – 1513013099
*(Offered at ASC, BLC, ELC, HPC, HZC, JFC, SEC, WKC)*

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

**Subtotal** 6

**Technical Core:**
- CAD 100 Introduction to Computer Aided Design .......................... 3
- CAD 200 Intermediate CAD .................................................. 4
- CAD 201 Parametric Modeling .................................................. 4
- Technical Electives ......................................................... 5-7

**Total Credits** 16-18


This program includes tracks in Business Software and Support, Cloud Computing Technologies, Data Center Technologies, General, Geospatial Technologies, Informatics, Information Security, Internet Technologies, Network Administration, Network Technologies, Programming, and Video Game Design, 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, 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-General Education 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 Business Software and Support 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 Applications 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.

Software Support - Provides an in-depth knowledge of application software, computer system configurations, and data-driven websites.

The Cloud Computing Technologies Track covers the fundamentals of building IT infrastructure using cloud-based technologies. The track is designed to teach future cloud technologists how to optimize the use of cloud-based services and how these services fit into cloud-based solutions. Because architectural solutions can differ depending on industry, type of applications, and size of business, this track emphasizes best practices for cloud technologies, and it recommends various design patterns to help students think through the process of architecting optimal IT cloud-based solutions.

Within the Cloud Computing Technologies Track, there is an Amazon Web Services (AWS) course sequence that is designed to prepare students to pass the AWS Cloud Practitioner Certification Exam and the AWS Cloud Architect Certification Exam.

The Cloud Computing Technologies track also includes a course sequence in Data Center Technology. This track provides experience in areas such as virtualization, storage, security, high availability and adherence to standards in provisioning of computing resources that meet business and organizational needs. The Data Center sequence can be used to prepare students for entry-level positions in organizations that design and manage data centers.

The General Track will give students the basic concepts in computer hardware and software, databases, programming, security, networking and upon completion of the track, the graduate will be qualified to take industry designed and recognized certification examinations. This degree plan will offer maximum flexibility by providing students with a range of options for program specialization with the knowledge and skills sufficient to be employable and successful in a variety of professional computing areas. Possible employment opportunities may include but are not limited to areas such as cloud computing, virtualization, programming and application development, network and system administration, and other new and innovative developments in Information Technology for both small and large organizations.

Geospatial Technologies Track (GST), is a rapidly growing and evolving field which enables users of location based data the ability to make informed decisions, utilizing a large array of sensors and demographics. GST utilizes both time and place as analysis factors and is recognized by the U.S. Department of Labor (DoL) as a high growth, high wage, green industry with a bright outlook. The curriculum is based upon national standards, including the DoL Geospatial Technology Competency Model (GTCM) and the NSF funded GeoTech Center model courses. Completers of the Associate of Applied Science degree have the skills for employment in GST or associated fields such as Unmanned Aircraft System, agriculture, remote sensing, geospatial intelligence, environmental science, crime analysis, and/or demographics.

The Informatics Track prepares students interested in an advanced study of database design/management and computer programming. The curriculum may also be used to prepare students for entry into bachelor-level programs in computer science and informatics.

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 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.

The Information Systems track is designed with an emphasis on programming for a business environment. Students completing the Information Systems track study basic business concepts, one programming language at an advanced level, and two programming languages at an introductory level.

The Software Development track emphasizes computer software development. Students completing the Software Development track study a minimum of two computer programming languages at an advanced level and additional programming language(s) at an introductory level. Flexibility within this track allows students to focus on a specific area of software development by means of the programming languages they choose to study (object-oriented programming, database programming, game development, etc.).

The Video Game Design Track prepares students to design, develop, and market digital games and simulations. This track focuses on game development with an emphasis on game programming.

A+ Prep Certificate

The A+ Prep 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. The certificate gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of proficiency.

**AWS Cloud Architecting Certificate**

The AWS Cloud Architecting Certificate covers the fundamentals of building IT infrastructure on Amazon Web Services, or AWS. The track is designed to teach future solutions architects how to optimize the use of the AWS Cloud by understanding AWS services and how these services fit into cloud-based solutions. Because architectural solutions can differ depending on industry, type of applications, and size of business, this track emphasizes best practices for the AWS Cloud, and it recommends various design patterns to help students think through the process of architecting optimal IT solutions on AWS.

**CISCO Networking Associate Certificate**

The CISCO Networking Associate Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA 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.

**CIT Fundamentals Certificate**

The CIT Fundamentals Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computers. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency.

**Computer Support Technician Certificate**

The Computer Support Technician Certificate offers students the opportunity to earn a credential demonstrating computer support technician competencies. The certificate consists of the core skills that students need for computer and end-user support. In addition, this certificate will provide a way for professionals currently in the industry to update their computer support technician skills and for new students to show progress in the CIT program.

**Computer Tech Basic Certificate**

The Computer Tech Basic Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer information technology. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency. The Computer Tech Basic Certificate prepares students for the CompTIA A+ and Net+ certification exams which are recognized by the computer industry around the world.

**Computer Technician Certificate**

The Computer Technician Certificate offers students the opportunity to earn a credential demonstrating computer technician competencies. This certificate consists of the core skills that students need to achieve the industry A+ and Security+ certifications. In addition, this certificate will provide a way for professionals currently in the industry to update their technician skills and for new students to show progress in the CIT program.

**Digital Forensics Certificate**

The Digital Forensics Certificate offers students the opportunity to earn a credential demonstrating skills in digital forensics. Digital forensics covers the retrieval and investigation of material found in digital devices. Digital material refers to all methods of electronic data storage and transfer devices, including computers, laptops, cell phones, tablets, gaming consoles, and portable storage devices. The goal of digital forensics is to ensure the integrity of that digital material while thoroughly examining it. Digital forensics requires in-depth knowledge of the understanding of the legal as well as the technical aspects of cybercrime. This certificate consists of the core skills that students need to demonstrate basic digital forensic skills. It provides an introduction to information security and incident response, forensic preparation and data recovery and analysis. The goals of this certificate focus on the principles and techniques used to identify, search, seize and analyze digital media, and to conduct cyber investigations. In addition, this certificate will provide a way for professionals currently in the industry to update their digital forensic skills and for new students to show progress in the CIT program.

**Informatics Advanced Certificate**

The Informatics Advanced Certificate builds on the Informatics Generalist certificate for those in the workforce looking to gain deeper knowledge about informatics structure and analysis. It will prepare them to work with collaboration software, such as SharePoint, will work with database programming and mining.

**Informatics Generalist Certificate**

The Informatics Generalist Certificate is for students in the workforce looking to gain knowledge about informatics. It will prepare them to use and understand existing software and will introduce them to data analysis and how it can be used.

**Informatics Programming Certificate**

The Informatics Programming Certificate offers students the opportunity to earn a credential demonstrating informatics programming competencies. It consists of core abilities that students need to design well-structured databases and effectively develop secure applications using an object-oriented programming language to interface with databases.

**Information Security Specialist Certificate**

The Information Security Specialist Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that
students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their information security skills and for new students to show progress in the CIT program.

**Microsoft 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.

**Mobile Apps Development Certificate**

The Mobile Apps Development Certificate offers students the opportunity to earn a credential demonstrating mobile apps development competencies. This certificate consists of the core skills that students need to effectively develop mobile apps. It provides a way for professionals currently in the industry to update their mobile app development skills and for new students to show progress in the CIT program.

**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 network technologies specialist skills.

**Productivity Software Specialist Certificate**

The Productivity Software Specialist Certificate offers students the opportunity to earn a credential demonstrating productivity software competencies. This certificate consists of the core skills that students need to effectively use various productivity software products. In addition, this certificate will provide a way for professionals currently in the industry to update their productivity software skills and for new students to show progress in the CIT program.

**Microsoft Network Administrator Certificate**

The Microsoft Network Administrator Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program.

**Net + Prep Certificate**

The Net+ Prep 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 develop mobile apps. It provides 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+ Prep Certificate prepares students for the CompTIA Net+ exam which is recognized by the computer industry around the world.

**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 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.

**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.

**Security + Prep Certificate**

The Security+ Prep 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+ Prep Certificate prepares students for the CompTIA Security+ exam which is recognized by the computer industry around the world.

**Social Media Specialist Certificate**

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

**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.

**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.

**Video Game Design Certificate**

The Video Game Design Certificate prepares students to design, develop, and market digital games and simulations.
Associate in Applied Science

Computer and Information Technologies - 1101017089
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OW, SEC, SKY, SMC, WKC)

General Education
ENG 101 Writing I ............................................. 3
MAT 126 Technical Algebra and Trigonometry (or higher) ............................................. 3
Social and Behavioral Science Course ............................................. 3
Heritage or Humanities Course ............................................. 3
Natural Sciences Course ............................................. 3
Subtotal 15

Technical Core Requirements
CIT 105 Introduction to Computers ............................................. 3
CIT 111 Computer Hardware and Software ............................................. 4
CIT 120 Computational Thinking ............................................. 3
CIT 170 Database Design Fundamentals ............................................. 3
CIT 180 Security Fundamentals ............................................. 3
Approved Level I Networking Course ............................................. 4
Approved Level I Programming Language Course ............................................. 3
CIT 293 CIT Employability Studies ............................................. 1
Technical Core Subtotal 24

Business Software and Support Track – 110101717
(Offered at ASC, BLC, HZC, HEC, HPC, JFC, MDC, MYC, OW, SEC, WKC)
CIT 130 Productivity Software ............................................. 3
CIT 234 Advanced Productivity Software ............................................. 3
CIT 236 Advanced Data Organization Software ............................................. 3
Approved Business OR Management Course ............................................. 3
Completion of a Business Software and Support Track Course Sequence in Business Software Specialist OR
Computer Support OR
Software Support ............................................. 9
Track Subtotal 21
Total 60

Business Software and Support Track Course Sequences:

Business Software Specialist
CIT 171 SQL I ............................................. 3
Approved CIT Technical Course ............................................. 3
Approved Business or Management Course ............................................. 3
Subtotal 9

Computer Support
CIT 232 Help Desk Operations ............................................. 3
Approved CIT Technical Course ............................................. 3
Approved CIT Technical Course ............................................. 3
Subtotal 9

Software Support
CIT 150 Internet Technologies OR ............................................. 3
CIT 155 Web Page Development OR ............................................. (3)
CIT 157 Web Site Design and Production ............................................. (3)
CIT 253 Data-Driven Web Pages: Topic ............................................. 3
ENG 102 Writing II OR
Oral Communications Course ............................................. (3)
Subtotal 9

Cloud Computing Technologies Track – 110101716
(Offered at BLC, JFC, WKC)
CIT 201 Information Storage Management ............................................. 3
CIT 217 Linux/Linux Administration ............................................. 3
CIT 262 MS Server Infrastructure ............................................. 3
Completion of a Cloud Computing Technologies Track Course Sequence in Amazon Web Services OR
Data Center Technologies ............................................. 12-13
Track Subtotal 21-22

Data Center Technologies
CIT 203 Introduction to Virtualization ............................................. 3
CIT 204 VMware Optimize and Scale ............................................. 3
CIT 205 Cloud Infrastructure and Services ............................................. 3
Approved Networking Elective ............................................. 3-4
Subtotal 12

Total 60-61

General Track – 110101720
(Offered at ASC, ELC, HZC, HPC, JFC, MDC, MYC, OW, WKC)
CIT Technical Electives* ............................................. 21-25
Track Subtotal 21-25
Total 60-64

*At least 12 credit hours must be at the 200 level, or other courses approved by the Program Coordinator. Students must meet with the Program Coordinator or designee and complete a study plan PRIOR to beginning the General Track.

Geospatial Technologies Track – 110101718
(Offered at BLC)
CIT 125 Introduction to Digital Maps ............................................. 3
CIT 225 GIS Software Tools ............................................. 3
GIS 145 Remote Sensing ............................................. 3
GIS 235 Geospatial Programming ............................................. 3
GIS 260 GIS Web Mapping ............................................. 3
CIT 229 Selected Topics in GIS ............................................. 3
CIT 290 Internship ............................................. 3
Track Subtotal 21
Total 60

Informatics Track – 110101719
(Offered at BLC, WKC)
ENG 102 Writing II ............................................. 3
CIT 150 Internet Technologies OR ............................................. 3
CIT 155 Web Page Development OR ............................................. 3
CIT 157 Web Site Design and Production ............................................. 3
CIT 249 Java II OR
Object-Oriented Programming I ............................................. (3)
Completion of an Informatics Track Course Sequence In: Business OR
Data Science OR
Informatics Programming ............................................. 9-11
Track Subtotal 21-23
Total 60-62

119
Informatics Track Course Sequences:

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<td>IFM</td>
<td>111</td>
<td>Client-Side Informatics Software</td>
<td>3</td>
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<tr>
<td>IFM</td>
<td>128</td>
<td>Principles of Informatics OR</td>
<td>3</td>
</tr>
<tr>
<td>INF</td>
<td>138</td>
<td>Principles of Informatics</td>
<td>3</td>
</tr>
<tr>
<td>IFM</td>
<td>211</td>
<td>Collaborative Software OR</td>
<td>3</td>
</tr>
<tr>
<td>IFM</td>
<td>225</td>
<td>Advanced Informatics OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC</td>
<td>201</td>
<td>Financial Accounting OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC</td>
<td>202</td>
<td>Managerial Accounting OR</td>
<td>3</td>
</tr>
<tr>
<td>ECO</td>
<td>201</td>
<td>Principles of Microeconomics OR</td>
<td>3</td>
</tr>
<tr>
<td>ECO</td>
<td>202</td>
<td>Principles of Macroeconomics</td>
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Subtotal   9

Data Science:

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<td>155</td>
<td>Trigonometry</td>
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<tr>
<td>MAT</td>
<td>174</td>
<td>Calculus I OR</td>
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<td>MA</td>
<td>113</td>
<td>Calculus I</td>
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<tr>
<td>CS</td>
<td>275</td>
<td>Discrete Math OR</td>
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<tr>
<td>STA</td>
<td>210</td>
<td>Statistics: A Force in Human Judgement OR</td>
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<tr>
<td>STA</td>
<td>220</td>
<td>Statistics OR</td>
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<tr>
<td>STA</td>
<td>296</td>
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Sequence Subtotal 11

Informatics Programming:

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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CIT</td>
<td>253</td>
<td>Data Driven Web Pages</td>
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<tr>
<td>CS</td>
<td>215</td>
<td>Introduction to Program Design, Abstraction, and Problem Solving OR</td>
</tr>
<tr>
<td>CIT</td>
<td>242</td>
<td>C++ II OR</td>
</tr>
<tr>
<td>CIT</td>
<td>243</td>
<td>C# II</td>
</tr>
<tr>
<td>CS</td>
<td>216</td>
<td>Introduction to Software Engineering OR</td>
</tr>
<tr>
<td>STA</td>
<td>210</td>
<td>Statistics: A Force in Human Judgement OR</td>
</tr>
<tr>
<td>STA</td>
<td>220</td>
<td>Statistics</td>
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Sequence Subtotal 11

Information Security Track - 110101712

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CIT</td>
<td>182</td>
<td>Perimeter Defense</td>
</tr>
<tr>
<td>CIT</td>
<td>184</td>
<td>Attacks and Exploits</td>
</tr>
<tr>
<td>CIT</td>
<td>217</td>
<td>UNIX/Linux Administration</td>
</tr>
<tr>
<td></td>
<td>Approved Network Elective Course</td>
<td>6</td>
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<tr>
<td></td>
<td>Approved Security Elective Course</td>
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<tr>
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Track Subtotal 21

Total 60

Internet Technologies Track - 110101710

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

Complete two of the following:

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<th>Course Title</th>
<th>Hours</th>
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<td>CIT</td>
<td>150</td>
<td>Internet Technologies</td>
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<tr>
<td>CIT</td>
<td>155</td>
<td>Web Page Development</td>
</tr>
<tr>
<td>CIT</td>
<td>157</td>
<td>Web Site Design and Production</td>
</tr>
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</table>

Subtotal 6

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<th>Course Title</th>
<th>Hours</th>
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<td>Applied Internet Technologies OR</td>
</tr>
<tr>
<td>CIT</td>
<td>258</td>
<td>Internet Technologies Seminar</td>
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Completion of an Internet Technologies Track Course Sequence in:

Web Programming OR

| Subtotal | 21 |

Total 60

Internet Technologies Track Course Sequences:

Web Programming Course Sequence:

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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>Approved Level I Web Programming Language Course</td>
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</tr>
<tr>
<td></td>
<td>Approved Level II Web Programming Language Course</td>
<td>3</td>
</tr>
<tr>
<td>CIT</td>
<td>171</td>
<td>SQL I</td>
</tr>
<tr>
<td>CIT</td>
<td>253</td>
<td>Data Driven Web Pages: Topic</td>
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Sequence Subtotal 12

Web Administration Course Sequence:

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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
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<td>Internet Protocols</td>
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<tr>
<td>CIT</td>
<td>255</td>
<td>Web Server Administration</td>
</tr>
<tr>
<td></td>
<td>AND ONE OF THE PAIRS BELOW</td>
<td></td>
</tr>
<tr>
<td>CIT</td>
<td>261</td>
<td>MS Active Directory Services AND</td>
</tr>
<tr>
<td>CIT</td>
<td>262</td>
<td>MS Server Infrastructure</td>
</tr>
<tr>
<td>CIT</td>
<td>264</td>
<td>Microsoft Server Management</td>
</tr>
<tr>
<td>CIT</td>
<td>217</td>
<td>UNIX/Linux Administration AND</td>
</tr>
<tr>
<td>CIT</td>
<td>218</td>
<td>UNIX/Linux Net Infrastructure</td>
</tr>
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Sequence Subtotal 12

Network Administration Track - 110101708

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

Network Administration Track Course Sequence | 12

Sequence in:

Microsoft Windows Administration
Cisco Network Associate
Approved CIT Technical Courses | 9-12

Track Subtotal 21-24

Total 60-63

Microsoft Windows Administration Course Sequence:

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<thead>
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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CIT</td>
<td>213</td>
<td>Microsoft Client Configuration</td>
</tr>
<tr>
<td>CIT</td>
<td>261</td>
<td>MS Active Directory Services</td>
</tr>
<tr>
<td>CIT</td>
<td>262</td>
<td>MS Server Infrastructure</td>
</tr>
<tr>
<td>CIT</td>
<td>264</td>
<td>Microsoft Server Management</td>
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Subtotal 12

Cisco Networking Associate Course Sequence:

<table>
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<tbody>
<tr>
<td>CIT</td>
<td>167</td>
<td>Routing &amp; Switching Essentials</td>
</tr>
<tr>
<td>CIT</td>
<td>209</td>
<td>Scaling Networks</td>
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<tr>
<td>CIT</td>
<td>212</td>
<td>Connecting Networks</td>
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Subtotal 12

Network Technologies Track - 110101713

(Offered at ASC, BLC, JFC, MDC, MYC, OWC)

<table>
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<th>Course Title</th>
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<tr>
<td>CIT</td>
<td>219</td>
<td>Internet Protocols</td>
</tr>
<tr>
<td>CIT</td>
<td>288</td>
<td>Network Security</td>
</tr>
</tbody>
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Select 15 hours from the courses listed below. At least 8 hours must be from a single platform and at least 4 hours must be from a different platform: | 15

Track Subtotal 21

Total 60-63

Approved Network Technologies Course Sequences *

Microsoft Platform

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CIT</td>
<td>213</td>
<td>Microsoft Client Configuration</td>
</tr>
<tr>
<td>CIT</td>
<td>261</td>
<td>MS Active Directory Services</td>
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<tr>
<td>CIT</td>
<td>262</td>
<td>MS Server Infrastructure</td>
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<tr>
<td>CIT</td>
<td>264</td>
<td>Microsoft Server Management</td>
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</table>

Other Microsoft networking courses as approved by local Program coordinator.
UNIX/Linux Platform

<table>
<thead>
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<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CIT 217</td>
<td>UNIX/Linux Administration AND</td>
<td>3</td>
</tr>
<tr>
<td>CIT 218</td>
<td>UNIX/Linux Net Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIT 255</td>
<td>Web Server Administration</td>
<td>3</td>
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</table>

Cisco Platform

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CIT 167</td>
<td>Routing &amp; Switching Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CIT 209</td>
<td>Scaling Networks</td>
<td>4</td>
</tr>
<tr>
<td>CIT 212</td>
<td>Connecting Networks</td>
<td>3</td>
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Data Center Platform

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CIT 201</td>
<td>Information Storage Management</td>
<td>3</td>
</tr>
<tr>
<td>CIT 203</td>
<td>Introduction to Virtualization</td>
<td>3</td>
</tr>
<tr>
<td>CIT 204</td>
<td>VMWare Optimize and Scale</td>
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<tr>
<td>CIT 205</td>
<td>Cloud Infrastructure and Services</td>
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Programming Track - 110101709

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

<table>
<thead>
<tr>
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<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CIT/IMD 221</td>
<td>Approved Level II Programming Language</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 274</td>
<td>Approved Level I, II, or III Programming Language</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 222</td>
<td>Approved CIT Technical Course(s)</td>
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</tr>
<tr>
<td>CIT/IMD 223</td>
<td>Completion of a Programming Track Course Sequence</td>
<td></td>
</tr>
<tr>
<td>CIT/IMD 224</td>
<td>Information Systems OR</td>
<td></td>
</tr>
<tr>
<td>CIT/IMD 225</td>
<td>Programming Software Development</td>
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Total Subtotal 21

Programming Track Course Sequences:

Information Systems

<table>
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<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 150</td>
<td>SQL I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>SQL I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 157</td>
<td>SQL I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 253</td>
<td>SQL I</td>
<td>3</td>
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</table>

Total Subtotal 12

Programming Software Development

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CIT 150</td>
<td>Approved Level I Programming Language</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Approved Level II Programming Language</td>
<td>3</td>
</tr>
<tr>
<td>CIT 157</td>
<td>Web Page Development OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 253</td>
<td>Web Site Design and Production</td>
<td>3</td>
</tr>
<tr>
<td>CIT 253</td>
<td>Data-Driven Web Pages: Topic</td>
<td>3</td>
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Total Subtotal 12

Video Game Design Track - 110101715

(Offered at BLC, HEC, HZC, MYC, MDC)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT/IMD 224</td>
<td>Introduction to Game Development</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 274</td>
<td>Seminar in Game Development</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 221</td>
<td>Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 222</td>
<td>3D Modelling</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 223</td>
<td>3D Animation</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 273</td>
<td>Game Production</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 274</td>
<td>Video Game Design Elective</td>
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Total Subtotal 21

Course Choice Lists

Approved Business Courses*

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>IFM 111</td>
<td>Client-Side Informatics Software</td>
<td>3</td>
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<tr>
<td>IFM 128</td>
<td>Principles of Informatics</td>
<td>3</td>
</tr>
<tr>
<td>IFM 211</td>
<td>Collaboration Software</td>
<td>3</td>
</tr>
<tr>
<td>IFM 215</td>
<td>Information System Analysis</td>
<td>3</td>
</tr>
<tr>
<td>IFM 225</td>
<td>Advanced Informatics</td>
<td>3</td>
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Any business or informatics course approved by Program Coordinator ………………………………………… 3

Approved Management Courses*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</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>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>MFG 256</td>
<td>Production Management</td>
<td>3</td>
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<td>OST 275</td>
<td>Office Management</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>BAS 201</td>
<td>Customer Service Improvement Skills</td>
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Any management course approved by Program Coordinator ………………………………………… 3

Approved Level I Networking Courses*

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<th>Title</th>
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<tbody>
<tr>
<td>CIT 160</td>
<td>Intro to Networking Concepts</td>
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<tr>
<td>CIT 161</td>
<td>Introduction to Networks</td>
<td>4</td>
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Approved Network Elective Courses*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CIT 167</td>
<td>Routing &amp; Switching Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CIT 209</td>
<td>Scaling Networks</td>
<td>4</td>
</tr>
<tr>
<td>CIT 212</td>
<td>Connecting the Networks</td>
<td>4</td>
</tr>
<tr>
<td>CIT 218</td>
<td>UNIX/Linux Net Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIT 219</td>
<td>Internet Protocols</td>
<td>3</td>
</tr>
<tr>
<td>CIT 260</td>
<td>Network Hardware Installation and Troubleshooting</td>
<td>3</td>
</tr>
<tr>
<td>CIT 261</td>
<td>MS Active Directory Services</td>
<td>3</td>
</tr>
<tr>
<td>CIT 262</td>
<td>MS Server Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIT 263</td>
<td>Advanced Topics in Microsoft Windows: (Topics)</td>
<td>3</td>
</tr>
<tr>
<td>CIT 264</td>
<td>Microsoft Server Management</td>
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Other Microsoft networking courses as approved by the CIT Program Coordinator ………………………………………… 3

Approved Security Elective Courses*

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<tbody>
<tr>
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<td>Computer Forensics</td>
<td>3</td>
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<td>CIT 285</td>
<td>Windows OS Security</td>
<td>3</td>
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<tr>
<td>CIT 286</td>
<td>UNIX/Linux OS Security</td>
<td>3</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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Approved Level I Programming Language Courses*

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<tbody>
<tr>
<td>CIT 140</td>
<td>JavaScript I</td>
<td>3</td>
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<tr>
<td>CIT 141</td>
<td>PHP I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 142</td>
<td>C# I</td>
<td>3</td>
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<tr>
<td>CIT 143</td>
<td>Python I</td>
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<td>CIT 144</td>
<td>Perl I</td>
<td>3</td>
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<tr>
<td>CIT 145</td>
<td>Swift I</td>
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<tr>
<td>CIT 146</td>
<td>Programming I: Language</td>
<td>3</td>
</tr>
<tr>
<td>CIT 147</td>
<td>Visual Basic I</td>
<td>3</td>
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<tr>
<td>CIT 149</td>
<td>Java I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 171</td>
<td>SQL I</td>
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University Level I programming language as approved by local Program Coordinator ………………………………………… 3

Approved Level II Programming Language Courses*

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<thead>
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<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CIT 237</td>
<td>iOS Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIT 238</td>
<td>Android Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIT 241</td>
<td>PHP II</td>
<td>3</td>
</tr>
<tr>
<td>CIT 242</td>
<td>C++ II</td>
<td>3</td>
</tr>
<tr>
<td>CIT 243</td>
<td>C# II</td>
<td>3</td>
</tr>
<tr>
<td>CIT 244</td>
<td>Python II</td>
<td>3</td>
</tr>
<tr>
<td>CIT 247</td>
<td>Programming II: Language</td>
<td>3</td>
</tr>
<tr>
<td>CIT 248</td>
<td>Visual Basic II</td>
<td>3</td>
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<td>CIT 249</td>
<td>Java II</td>
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<tr>
<td>CIT 271</td>
<td>SQL II</td>
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University Level II programming language as approved by local Program Coordinator ………………………………………… 3

Approved Level III Programming Language Courses*

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<thead>
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<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tr>
<td>CIT 277</td>
<td>Programming III: Language</td>
<td>3</td>
</tr>
<tr>
<td>CIT 278</td>
<td>Visual Basic III</td>
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University Level III programming language as approved by local Program Coordinator ………………………………………… 3
Approved Level I Web Programming Language Courses

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CIT 151</td>
<td>Social Media I</td>
<td>3</td>
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<tr>
<td>CIT 152</td>
<td>Social Media Tools and Technologies</td>
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<td>CIT 251</td>
<td>Social Media II</td>
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</table>

Approved Video Game Design Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 238</td>
<td>Android Programming</td>
<td>3</td>
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</table>

Approved CIT Technical Courses

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 236</td>
<td>Advanced Data Organization Software</td>
<td>3</td>
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<tr>
<td>CIT 151</td>
<td>Social Media I</td>
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<tr>
<td>CIT 152</td>
<td>Social Media Tools and Technologies</td>
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<tr>
<td>CIT 251</td>
<td>Social Media II</td>
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</tbody>
</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

A+ Prep - 1101013529

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software</td>
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AWS Cloud Architecting – 1101013569

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<tr>
<td>CIT 167</td>
<td>Routing and Switching Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CIT 201</td>
<td>Information Storage Management</td>
<td>3</td>
</tr>
<tr>
<td>CIT 206</td>
<td>Amazon Web Services Practitioner</td>
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<td>CIT 207</td>
<td>Amazon Web Services Architecting</td>
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<tr>
<td>CIT 217</td>
<td>UNIX/Linux Administration</td>
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<tr>
<td>CIT 262</td>
<td>MS Server Infrastructure</td>
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CISCO Networking Associate – 1101013539

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<td>CIT 161</td>
<td>Introduction to Networks</td>
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<tr>
<td>CIT 167</td>
<td>Routing and Switching Essentials</td>
<td>4</td>
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<tr>
<td>CIT 209</td>
<td>Scaling Networks</td>
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<td>CIT 212</td>
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CISCO Networking Enhanced – 1101013579

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CIT Fundamentals - 1101013309

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<td>Computer Hardware and Software</td>
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<td>CIT 120</td>
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<td>CIT 170</td>
<td>Database Design Fundamentals OR</td>
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Computer Support Technician - 1101013329

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<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software</td>
<td>4</td>
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<tr>
<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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Computer Tech Basic - 1101013319

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Computer Technician - 1101013289

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Digital Forensics – 1101013459

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<td>CIT 111</td>
<td>Computer Hardware and Software</td>
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<td>CIT 160</td>
<td>Intro to Networking Concepts OR</td>
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<td>CIT 161</td>
<td>Introduction to Networks</td>
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<td>CRJ 204</td>
<td>Criminal Investigations</td>
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<td>CIT 180</td>
<td>Security Fundamentals</td>
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<td>CIT 284</td>
<td>Computer Forensics</td>
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Informatics Advanced – 1101013509

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<tr>
<td>CIT 149</td>
<td>Java 1 OR</td>
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<tr>
<td>INF 120</td>
<td>Elementary Programming</td>
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<td>IFM 211</td>
<td>Collaboration Software</td>
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<td>IFM 225</td>
<td>Advanced Informatics</td>
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Informatics Generalist – 1101013499

<table>
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<th>Course Title</th>
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<tr>
<td>CIT 105</td>
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<tr>
<td>CIT 120</td>
<td>Computational Thinking</td>
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<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>CIT 170</td>
<td>Database Design Fundamentals OR</td>
<td>3</td>
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<tr>
<td>INF 282</td>
<td>Introduction to Databases</td>
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<tr>
<td>IFM 215</td>
<td>Information Systems Analysis</td>
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Total Credits

- Approved CIT Technical Courses: 16
- Approved Web Programming Language Courses: 19
- Approved Video Game Design Electives: 19
- CISCO Networking Associate: 16
- CISCO Networking Enhanced: 16
- CIT Fundamentals: 23
- Computer Support Technician: 23
- Computer Tech Basic: 11
- Computer Technician: 14
- Digital Forensics: 20
- Informatics Advanced: 9
- Informatics Generalist: 15
### Informatics Programming – 1101013489
(Offers at BLC, BSC, GTW, HZC, JFC, SMC)
- CIT 120 Computational Thinking .................. 3
- CIT 170 Database Design Fundamentals OR .... 3
- INF 282 Introduction to Databases .................. (3)
- Informatics Programming Language Pair ............... 6-7

### Informatics Programming Language Pairs
- INF 120 Elementary Programming AND ............... 3
- INF 260 Object Oriented Programming I ............... 3
- CIT 149 Java I AND ................................ 3
- CIT 249 Java II ...................................... (3)
- OR
- CS 115 Intro to Computer Programming AND ........ (3)
- CS 215 Intro Program Design, Instruction, and Problem Solving ... (4)
- OR
- CIT 142 C++ I AND ................................ (3)
- CIT 242 C++ II ....................................... (3)
- OR
- CIT 148 Visual Basic I AND ........................... (3)
- CIT 248 Visual Basic II ................................ (3)
- OR
- CIT 143 C# I AND ................................... (3)
- CIT 243 C# II .......................................... (3)

**Total** ................................................................. 12-13

### Information Security Specialist – 1101013339
(Offers at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
- CIT 180 Security Fundamentals ....................... 4
- CIT 182 Perimeter Defense .............................. 3
- CIT 184 Attacks and Exploits ........................... 3
- Approved Security / Network Elective Courses .......... 6

**Total** ................................................................. 19

### Microsoft Enterprise Administrator – 1101013419
(Offers at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SMC, SEC, WKC)
- CIT 213 Microsoft Client Configuration ............... 4
- CIT 261 MS Active Directory Services .................. 3
- CIT 262 MS Server Infrastructure ....................... 3
- CIT 264 Microsoft Server Management .................. 3
- Approved CIT Technical Course ........................ 6

**Total** ................................................................. 22

### Microsoft Network Administrator – 1101013349
(Offers at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
- CIT 213 Microsoft Client Configuration ............... 4
- CIT 261 MS Active Directory Services .................. 3
- CIT 262 MS Server Infrastructure ....................... 3
- CIT 264 Microsoft Server Management .................. 3
- Approved CIT Technical Course ........................ 3

**Total** ................................................................. 19

### Mobile Apps Development – 1101013559
(Offers at BLC, BSC, ELC, GTW, HEC, HZC, JFC, MDC, MYC, OWC, SKY, SEC, SMC)
- CIT 105 Introduction to Computers ................... 3
- CIT 120 Computational Thinking ....................... 3

**Sequence 1:**
- CIT 149 Java I .......................................... 3
- CIT 238 Android Programming ......................... 3

### Sequence 2:
- CIT 146 Swift I ......................................... 3
- CIT 237 iOS Programming .............................. 3

**Total** ................................................................. 18

### Net+ Prep - 1101013539
(Offers at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC)
- CIT 160 Intro to Networking Concepts OR .......... 4
- CIT 161 Introduction to Networks ...................... (4)

**Total** ................................................................. 4

### Network Technologies Specialist - 1101013369
(Offers at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC)
- CIT 219 Internet Protocols .............................. 3
- CIT 288 Network Security .............................. 3
- Select 15 hours from the courses listed below. At least 8 hours must be from a single platform and at least 4 hours must be from a different platform. ... 15

**Total** ................................................................. 21

### Microsoft Platform
- CIT 231 Microsoft Client Configuration ............... (3)
- CIT 261 MS Active Directory Services .................. (3)
- CIT 262 MS Server Infrastructure ....................... (3)
- CIT 264 Microsoft Server Management .................. (3)
- Other Microsoft networking courses as approved by local Program coordinator

### UNIX/Linux Platform
- CIT 217 UNIX/Linux Administration ................... (3)
- CIT 218 UNIX/Linux Net Infrastructure ............... (3)
- CIT 255 Web Server Administration ................... (3)

### Cisco Platform
- CIT 167 Routing & Switching Essentials ............. (4)
- CIT 209 Scaling Networks ............................... (4)
- CIT 212 Connecting Networks ........................... (4)

### Data Center Platform
- CIT 201 Information Storage Management ............ (3)
- CIT 203 Introduction to Virtualization ................ (3)
- CIT 204 VMWare Optimize and Scale ................... (3)
- CIT 205 Cloud Infrastructure and Services ............ (3)

### Productivity Software Specialist - 1101013299
(Offers at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, WKC)
- CIT 105 Introduction to Computers ................... 3
- CIT 130 Productivity Software ........................ 3
- CIT 234 Advanced Productivity Software .............. 3
- CIT 236 Adv. Data Organization Software ............. 3

**Total** ................................................................. 12

### Programming – 1101013429
(Offers at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
- CIT 120 Computational Thinking ....................... 3
- CIT 201 Programming Language ....................... 3
- CIT 202 Programming Language ....................... 3
- CIT 203 Programming Language ....................... 3

**Total** ................................................................. 12

### Security+ Prep - 1101013549
(Offers at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)
- CIT 180 Security Fundamentals ....................... 3

**Total** ................................................................. 3
### Social Media Specialist – 1101013469
*(Offered at ASC, BSC, HPC, HZC, MDC, MYC, OWC, SEC)*

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<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR Digital Literacy</td>
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<tr>
<td>CIT 155</td>
<td>Web Page Development</td>
<td>3</td>
</tr>
<tr>
<td>CIT 151</td>
<td>Social Media I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 152</td>
<td>Social Media II</td>
<td>3</td>
</tr>
<tr>
<td>CIT 251</td>
<td>Social Media II</td>
<td>3</td>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
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<td>BAS 282</td>
<td>Introduction to Marketing</td>
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### Video Game Design - 1101013519
*(Offered at BLC, WKC)*

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<tr>
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<tr>
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<td>3</td>
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<tr>
<td>CIT 120</td>
<td>Computational Thinking</td>
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<td>CIT/IMD 124</td>
<td>Approved Level I Web Programming Language</td>
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<td>CIT/IMD 221</td>
<td>Introduction to Game Development</td>
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<tr>
<td>CIT/IMD 222</td>
<td>Computer Graphics</td>
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<td>CIT/IMD 223</td>
<td>3D Modelling for Video Games</td>
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<td>CIT/IMD 273</td>
<td>Computer Animation</td>
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<td>CIT/IMD 274</td>
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### Web Administration - 1101013449
*(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)*

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<td>CIT 150</td>
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<td>CIT 155</td>
<td>Web Page Development</td>
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<td>CIT 219</td>
<td>Internet Protocols</td>
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<td>CIT 262</td>
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<td>CIT 261</td>
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<td>CIT 217</td>
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### Web Programming - 1101013439
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<td>Web Page Development</td>
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<td>CIT 171</td>
<td>SQL I</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

---

### Associate in Applied Science

#### Computerized Manufacturing & Machining - 4805037019
*(Offered at BLC, BSC, ELC, GTW, MDC, MYC, OWC, SKY, WKC)*

**General Education:**

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<td>Writing I</td>
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<td>MAT</td>
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<td>MAT</td>
<td>Technical Algebra and Trigonometry or Higher</td>
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<td>MAT</td>
<td>Heritage/Humanities</td>
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<td>MAT</td>
<td>Natural Sciences</td>
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<tr>
<td>MAT</td>
<td>Social/Behavioral Sciences</td>
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**Technical:**

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<td>CMM 118</td>
<td>Metrology/Control Charts</td>
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<td>CMM 120</td>
<td>Applied Machining I AND</td>
<td>3</td>
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<tr>
<td>CMM 122</td>
<td>Applied Machining I OR</td>
<td>3</td>
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<tr>
<td>CMM 124</td>
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<tr>
<td>CMM 130</td>
<td>Manual Programming AND</td>
<td>3</td>
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<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 134</td>
<td>Manual Programming/CAD/CAM/CNC OR</td>
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<tr>
<td>CMM 138</td>
<td>Intro to Programming &amp; CNC Machines</td>
<td>3</td>
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<tr>
<td>CMM 210</td>
<td>Industrial Machining I AND</td>
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<tr>
<td>CMM 212</td>
<td>Industrial Machining I OR</td>
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<td>CMM 214</td>
<td>Industrial Machining</td>
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<tr>
<td>CMM 220</td>
<td>Advanced Industrial Machining I AND</td>
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<td>CMM 222</td>
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<td>CMM 224</td>
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<td>CMM 2301</td>
<td>Intro to Conversational Programming AND</td>
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<tr>
<td>CMM 2302</td>
<td>Conversational Editing and Subroutines OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 230</td>
<td>Conversational Programming OR</td>
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<td>CMM 234</td>
<td>CNC Machines and Coding Practices</td>
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<td>CMM 2401</td>
<td>Intro to 3-D Code Sequencing and Tool path Production AND</td>
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<td>CMM 2402</td>
<td>Advanced 3-D Code Sequencing and Macro Systems OR</td>
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<tr>
<td>CMM 240</td>
<td>Intro to 3-D Programming OR</td>
<td>3</td>
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<tr>
<td>CMM 244</td>
<td>Advanced Programming/Setup Practices</td>
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<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist AND</td>
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</tr>
<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading for Machinist OR</td>
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<tr>
<td>BRX 112</td>
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<td></td>
<td><strong>48-51</strong></td>
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</tbody>
</table>

**Total Credits**: 64-67

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

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Diploma
CNC Machinist - 4805034069
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:
Area 1:
Written Communication, Oral Communications, or Heritage/Humanities ............................................. 3

Area 2:
Social/Behavioral Science, Natural Science or Quantitative Reasoning .................................................. 3
Subtotal: 6
Electives (Co-op or Practicum) ............................................. 1
Subtotal: 1

Technical:
Digital Literacy* ................................................................. 0-3
CMM 110 Fundamentals of Machine Tools A AND .................. 3
CMM 112 Fundamentals of Machine Tools B OR .................. 3
CMM 114 Fundamentals of Machine Tools ................................ (6)
CMM 118 Metrology/Control Charts ..................................... 2
CMM 120 Applied Machining I AND ...................................... 3
CMM 122 Applied Machining II OR ....................................... 3
CMM 124 Applied Machining .................................................. 3
CMM 130 Manual Programming AND .................................. 3
CMM 132 CAD/CAM/CNC OR .............................................. 3
CMM 134 Manual Programming/CAD/CAM/CNC OR ............... (6)
CMM 138 Intro to Programming & CNC Machines ............... (6)
CMM 210 Industrial Machining I AND .................................. 3
CMM 212 Industrial Machining II OR .................................... 3
CMM 214 Industrial Machining .............................................. 3
CMM 220 Advanced Industrial Machining I AND ................... 4
CMM 222 Advanced Industrial Machining II OR ..................... 2
CMM 224 Advanced Industrial Machining ................................ (6)
CMM 234 CNC Machines and Coding Practices .................... (6)
CMM 2401 Intro to 3-D Code Sequencing and Toolpath Production AND ................................................. (6)
CMM 2402 Advanced 3-D Code Sequencing and Macro Systems OR .................................................. (3)
CMM 2409 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: 48-51
Total Credits: 55-58

Machinist - 4805034079
(Offered at ASC, BLC, BSC, ELC, GTW, JFC, MYC, OWC, SEC, SMC, WKC)

General Education:
Area 1:
Written Communication, Oral Communications, or Heritage/Humanities ............................................. 3

Area 2:
Social/Behavioral Science, Natural Science or Quantitative Reasoning .................................................. 3
Subtotal: 6
Electives (Co-op or Practicum) ............................................. 1
Subtotal: 1

Technical:
Digital Literacy* ................................................................. 0-3
CMM 110 Fundamentals of Machine Tools A AND .................. 3
CMM 114 Fundamentals of Machine Tools ................................ (6)
CMM 118 Metrology/Control Charts ..................................... 2
CMM 120 Applied Machining I AND ...................................... 3
CMM 122 Applied Machining II OR ....................................... 3
CMM 124 Applied Machining .................................................. 3
CMM 130 Manual Programming AND .................................. 3
CMM 132 CAD/CAM/CNC OR .............................................. 3
CMM 134 Manual Programming/CAD/CAM/CNC OR ............... (6)
CMM 138 Intro to Programming & CNC Machines ............... (6)
CMM 210 Industrial Machining I AND .................................. 3
CMM 212 Industrial Machining II OR .................................... 3
CMM 214 Industrial Machining .............................................. 3
CMM 220 Advanced Industrial Machining I AND ................... 4
CMM 222 Advanced Industrial Machining II OR ..................... 2
CMM 224 Advanced Industrial Machining ................................ (6)
CMM 234 CNC Machines and Coding Practices .................... (6)
CMM 2401 Intro to 3-D Code Sequencing and Toolpath Production AND ................................................. (6)
CMM 2402 Advanced 3-D Code Sequencing and Macro Systems OR .................................................. (3)
CMM 2409 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: 48-51
Total Credits: 55-58

Certificates
CNC Machining & Waterjet Technology - 4805033189
(Offered at ASC, BLC, Sec)

CMM 138 Intro to Programming and CNC Machines ..................... 6
CMM 234 CNC Machines & Coding Practices ....................... 6
CMM 244 Advance Programming/Setup Practices .................. 6
Total Credits: 18

CNC Operator - 4805033129
(Offered at ASC, BLC, HPC, JFC, MDC, SEC, SMC, WKC)

CMM 110 Fundamentals of Machine Tools A AND .................. 3
CMM 112 Fundamentals of Machine Tools B OR .................. 3
CMM 114 Fundamentals of Machine Tools ................................ (6)
CMM 118 Metrology/Control Charts ..................................... 2
CMM 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 2301 Intro to Conversational Programming AND .......... 3
CMM 2302 Conversational Editing and Subroutines OR .......... 3
CMM 2303 Conversational Programming OR ......................... (6)
CMM 234 CNC Machines and Coding Practices .................... (6)
CMM 2401 Intro to 3-D Code Sequencing and Toolpath Production AND ................................................. (6)
CMM 2402 Advanced 3-D Code Sequencing and Macro Systems OR .................................................. (3)
CMM 2409 Intro to 3-D Programming OR ................................ (6)
CMM 244 Advanced Programming/Setup Practices ............... (6)
BRX 110 Basic Blueprint Reading for Machinist .................... 2
BRX 112 Blueprint Reading for Machinist ............................ (4)
MAT 116 Technical Mathematics or ..................................... 3
MAT 126 Technical Algebra and Trigonometry or Higher .................. (3)
Total Credits: 25-30

Exploratory Machining I - 4805033199
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

CMM 110 Fundamentals of Machine Tools A AND .................. 3
CMM 112 Fundamentals of Machine Tools B AND .................. 3
CMM 114 Fundamentals of Machine Tools ................................ (6)
CMM 130 Manual Programming AND .................................. 3
CMM 132 CAD/CAM/CNC AND ............................................. 3
CMM 138 Intro to Programming & CNC Machines ............... (6)
CMM 2301 Intro to Conversational Programming AND .......... 3
CMM 2302 Conversational Editing and Subroutines OR .......... 3
CMM 2303 Conversational Programming OR ......................... (6)
CMM 234 CNC Machines and Coding Practices .................... (6)
BRX 110 Basic Blueprint Reading for Machinist .................... 2
BRX 112 Blueprint Reading for Machinist ............................ (4)
CMM 116 Fundamentals of Machine Tools A AND .................. 3
CMM 118 Fundamentals of Machine Tools ................................ (6)
CMM 120 Applied Machining I AND ...................................... 3
CMM 122 Applied Machining II OR ....................................... 3
CMM 124 Applied Machining .................................................. 3
CMM 130 Manual Programming AND .................................. 3
CMM 132 CAD/CAM/CNC AND ............................................. 3
CMM 138 Intro to Programming & CNC Machines ............... (6)
CMM 2301 Intro to Conversational Programming AND .......... 3
CMM 2302 Conversational Editing and Subroutines OR .......... 3
CMM 2303 Conversational Programming OR ......................... (6)
CMM 234 CNC Machines and Coding Practices .................... (6)
BRX 110 Basic Blueprint Reading for Machinist .................... 2
BRX 112 Blueprint Reading for Machinist ............................ (4)
MAT 116 Technical Mathematics or ..................................... 3
MAT 126 Technical Algebra and Trigonometry or Higher .................. (3)
Total Credits: 11-12

125
### Machine Tool Operator I - 4805033109

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>CMM 110</td>
<td>Fundamentals of Machine Tools A AND</td>
<td>3</td>
</tr>
<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tools B OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 114</td>
<td>Fundamentals of Machine Tools</td>
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<td>CMM 130</td>
<td>Manual Programming AND</td>
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<td>CMM 132</td>
<td>CAD/CAM/CNC OR</td>
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<tr>
<td>CMM 134</td>
<td>Manual Programming CAD/CAM/CNC OR</td>
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<td>Intro to Programming &amp; CNC Machines</td>
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<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist OR</td>
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<td>BRX 112</td>
<td>Blueprint Reading for Machinist</td>
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**Total Credits:** 17-19

### 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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<th>Course Code</th>
<th>Course Title</th>
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<td>CMM 110</td>
<td>Fundamentals of Machine Tools A AND</td>
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<td>Fundamentals of Machine Tools B OR</td>
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<td>CMM 114</td>
<td>Fundamentals of Machine Tools</td>
<td>3</td>
</tr>
<tr>
<td>CMM 118</td>
<td>Metrology/Control Charts</td>
<td>2</td>
</tr>
<tr>
<td>CMM 120</td>
<td>Applied Machining I AND</td>
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</tr>
<tr>
<td>CMM 122</td>
<td>Applied Machining II OR</td>
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<td>CMM 124</td>
<td>Applied Machining</td>
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</tr>
<tr>
<td>CMM 130</td>
<td>Manual Programming AND</td>
<td>3</td>
</tr>
<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC OR</td>
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<tr>
<td>CMM 134</td>
<td>Manual Programming CAD/CAM/CNC OR</td>
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<td>Intro to Programming &amp; CNC Machines</td>
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<td>Basic Blueprint Reading for Machinist OR</td>
<td>2</td>
</tr>
<tr>
<td>BRX 112</td>
<td>Blueprint Reading for Machinist</td>
<td>4</td>
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<tr>
<td></td>
<td>Digital Literacy*</td>
<td>0-3</td>
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<tr>
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<td>Social/Behavioral Science, Natural Science, or Quantitative Reasoning</td>
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**Total Credits:** 25-30

### Tool & Die Apprentice - 4805033130

(Offered at BLC, JFC, MDC, SEC)

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<th>Course Title</th>
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<tr>
<td>CMM 150</td>
<td>Shop Theory OR</td>
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<td>CMM 110</td>
<td>Fundamentals of Machine Tools A</td>
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<td>CMM 118</td>
<td>Metrology/Control Charts</td>
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<tr>
<td>CMM 151</td>
<td>Machinery’s Handbook/Metallurgy OR</td>
<td>3</td>
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<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tools B</td>
<td>4</td>
</tr>
<tr>
<td>CMM 152</td>
<td>Jigs, Fixtures and Gaging OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 120</td>
<td>Applied Machining I</td>
<td>3</td>
</tr>
<tr>
<td>CMM 153</td>
<td>Mold Theory</td>
<td>3</td>
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<tr>
<td>CMM 154</td>
<td>Die Theory</td>
<td>3</td>
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<tr>
<td>CMM 130</td>
<td>Manual Programming</td>
<td>3</td>
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<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC</td>
<td>3</td>
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<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist OR</td>
<td>2</td>
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<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading</td>
<td>2</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
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<td>WLD 151</td>
<td>Basic-Welding A OR</td>
<td>2</td>
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<td>Computer/Digital Literacy* OR</td>
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<tr>
<td>IEX 295</td>
<td>Special Problems III</td>
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**Total Credits:** 29-34

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

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### Construction Technology

The Construction Technology program is designed to prepare students for entry level positions in the construction industry. Residential and light commercial construction applications are taught. This program includes instructional units in blueprint reading, building site layout procedures, foundation systems, light framing construction methods, exterior and interior finish systems, concrete forming systems and construction safety. Units of instruction are designed to include lecture and practical experience in the lab or on-site projects. This program also offers an excellent prerequisite for students that plan to pursue a career in areas such as construction management, civil engineering or architectural design.

The Green Building Technology certificate familiarizes students with the principles of green building technologies and methods of sustainable construction. Emphasis is placed on green materials used in the construction of buildings along with alternative and/or renewable energy systems. Covers both Leadership in Energy and Environmental Design (LEED) and the National Green Building Standard’s rating systems for the certification process of green buildings.

Progression in the Construction Technology Program is contingent upon achievement of a grade of “C” or better in each technical and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

### Associate in Applied Science

#### Construction Technology - 4602017029

(Offered at BLC, ELC)

**General Education Requirements:**

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<td>MAT 105</td>
<td>Written Communication</td>
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<td>Business Mathematics OR</td>
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<td>Higher level Quantitative Reasoning course</td>
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<td>Social/Behavioral Sciences</td>
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<td>Heritage/Humanities</td>
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<td></td>
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<td>Oral Communications</td>
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**Subtotal:** 18

#### Technical Requirements:

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<td>0-3</td>
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<tr>
<td>CAR 126</td>
<td>Blueprint Reading For Construction</td>
<td>3</td>
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<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>3</td>
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<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>
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<tr>
<td>CAR 190</td>
<td>Light Frame Construction I</td>
<td>3</td>
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<tr>
<td>CAR 191</td>
<td>Light Frame Const. I-Lab</td>
<td>2</td>
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<tr>
<td>CAR 196</td>
<td>Light Frame Construction II</td>
<td>3</td>
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<tr>
<td>CAR 197</td>
<td>Light Frame Const. II-Lab</td>
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<tr>
<td>CAR 200</td>
<td>Light Frame Construction III</td>
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<td>CAR 201</td>
<td>Light Frame Const. III-Lab</td>
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<td>CAR 298</td>
<td>Practicum in Construction OR</td>
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<tr>
<td>CAR 299</td>
<td>Co-op in Construction</td>
<td>(2-4)</td>
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<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
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<td>Technical Electives*</td>
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</table>

**Subtotal:** 42-47

**Total:** 60-65

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

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126
Note: WPP 200 or EFM 100 may be taken for 3 credit hours of Social/Behavioral Sciences or Humanities/Heritage.

Area 1: Written Communication, Oral Communications, Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ................. 3
Subtotal 6

Technical Electives: (This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Construction Technology instructor.)
BRX 120 Basic Blueprint Reading ........................................ 3
CAR 150 Construction Formwork ........................................ 3
CAR 151 Construction Formwork - Lab ............................... 2
CAR 198 Special Topics in Construction ......................... 1 - 6
CAR 240 Light Frame Construction IV ............................... 3
CAR 241 Light Frame Const. IV-Lab........................................ 2

Finish Carpenter - 4602014029
(Offered at JFC)

General Education Requirements: (6-9 credit hours)
Area 1: Written Communication, Oral Communications, Or Humanities/Heritage ............................................. 3
Area 2: Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning ................. 3
Subtotal 6

Technical Electives: (This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Carpentry instructor.)
BRX 120 Basic Blueprint Reading ........................................ 3
CAR 150 Construction Formwork ........................................ 3
CAR 151 Construction Formwork - Lab ............................... 2
CAR 198 Special Topics in Construction ......................... 1 - 6
CAR 240 Light Frame Construction IV ............................... 3
CAR 241 Light Frame Const. IV-Lab........................................ 2

Diploma

Construction Carpenter - 4602014019
(Offered at BLC, BSC, ELC, HZC, JFC, MYC, SEC, SMC)

General Education Requirements:
Area 1: Written Communication, Oral Communications, or Humanities/Heritage ................. 3
Area 2: Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ................. 3
Subtotal 6

Technical Electives: Digital Literacy course OR demonstrated competency........ 0-3
BRX 220 Blueprint Reading for Construction ......................... 3
CAR 126 Intro to Construction ........................................ 3
CAR 127 Intro to Construction-Lab ...................................... 1
CAR 140 Surveying & Foundations ...................................... 3
CAR 141 Surveying & Foundations-Lab .............................. 2
CAR 190 Light Frame Construction I .................................... 3
CAR 191 Light Frame Const. I-Lab ...................................... 2
CAR 196 Light Frame Construction II ................................... 3
CAR 197 Light Frame Const. II-Lab .................................... 2
CAR 200 Light Frame Construction III .................................. 3
CAR 201 Light Frame Const. III-Lab .................................... 2
CAR 298 Practicum in Construction OR .............................. 2
CAR 299 Co-op in Construction ....................................... (2-4)
ISX 100 Industrial Safety .................................................. 3
Technical Electives* ...................................................... 10
Subtotal 42-47
Total 48-53

Technical Requirements:
Digital Literacy course OR demonstrated competency........ 0-3
INF 105 Introduction to Painting ......................................... 2
INF 111 Advanced Painting ............................................... 2
INF 115 Introduction to Wall covering .................................. 2
INF 121 Advanced Wall Covering ....................................... 2
INF 125 Introduction to Drywall ......................................... 2
INF 131 Advanced Drywall ................................................ 2
INF 205 Introduction to Acoustical Carpentry ......................... 3
INF 211 Advanced Acoustical Carpentry ................................ 2
INF 220 Customer Relations ............................................. 2
INF 298 Practicum (or) .................................................... 2
CAR 299 Cooperative Education in Construction ....................... (2-4)
Subtotal 24-29
Total Credits 30-35

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

Certificates

Acoustical Carpenter - 4602013119
(Offered at BLC, BSC, ELC, HZC, JFC, SEC)
INF 205 Introduction to Acoustical Carpentry ......................... 3
INF 211 Advanced Acoustical Carpentry ................................ 2
Electives: *Technical Electives ......................................... 6
Total Credits 11

Basic Carpenter - 4602013139
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC)
CAR 126 Intro to Construction ........................................ 3
CAR 127 Intro to Construction-Lab ...................................... 1
Electives: (Any five [5] additional credits, program or otherwise) ..................... 5
Total Credits 9

Carpenter Helper - 4602013109
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC)
BRX 220 Blueprint Reading for Construction ......................... 3
CAR 126 Intro to Construction ........................................ 3
CAR 127 Intro to Construction-Lab ...................................... 1
CAR 140 Surveying & Foundations ...................................... 3
CAR 141 Surveying & Foundations-Lab .............................. 2
CAR 190 Light Frame Construction I – Floors and Walls .......... 3
CAR 191 Light Frame Construction I – Floors and Walls (Lab) .... 2
Total Credits 17

Construction Forms Helper - 4602013029
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)
BRX 220 Blueprint Reading for Construction ......................... 3
CAR 126 Intro to Construction ........................................ 3
CAR 127 Intro to Construction-Lab ...................................... 1
CAR 150 Construction Formwork ........................................ 3
CAR 151 Construction Formwork - Lab ................................ 2
Electives: (*Suggested Technical Electives) ........................... 6
Total Credits 18

Note: WPP 200 or EFM 100 may be taken for 3 credit hours of Social/Behavioral Sciences to meet the Diploma General Education requirements.
*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.

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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>BRX 120</td>
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<td>Construction Surveying and Foundation Systems</td>
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<td>CAR 150</td>
<td>Construction Formwork</td>
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<td>CAR 151</td>
<td>Construction Formwork - Lab</td>
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<td>Light Frame Construction I - Floors and Walls</td>
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<td>CAR 198</td>
<td>Special Topics in Construction</td>
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<td>CAR 200</td>
<td>Light Frame Construction III - Exterior</td>
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<td>Light Frame Construction IV - Cabinetry and Trim</td>
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*Suggested General Education Electives:

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<td>COM 252</td>
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<td>MAT 110</td>
<td>Applied Mathematics</td>
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<td>Introductory Physics</td>
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<td>WPP 200</td>
<td>Workplace Principles</td>
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Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.

**Dry Waller - 4602013039**
(Of Offered at BSC, ELC, HZC, JFC, SEC)

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Total Credits: 8

**Green Building Technology - 4602013159**
(Of Offered at HZC, JFC, SEC)

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Total Credits: 20

**Residential Carpenter - 4602013059**
(Of Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC)

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<td>CAR 127</td>
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<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
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<td>CAR 141</td>
<td>Surveying &amp; Foundations - Lab</td>
<td>2</td>
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<tr>
<td>CAR 190</td>
<td>Light Frame Construction I - Floors and Walls</td>
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<tr>
<td>CAR 191</td>
<td>Light Frame Construction II - Ceilings and Roofs</td>
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<td>CAR 196</td>
<td>Light Frame Construction II - Ceilings and Roofs-Lab</td>
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<tr>
<td>CAR 197</td>
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<td>CAR 200</td>
<td>Light Frame Construction III - Exterior and Interior Finish</td>
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<td>Light Frame Construction III - Exterior and Interior Finish-Lab</td>
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Total Credits: 32

**Residential Roofing - 4602013069**
(Of Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SEC, SMC)

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<td>CAR 127</td>
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Total Credits: 12

**NCCER Skills Standard Level I - 4602013169**
(Of Offered at HZC, JFC, SEC)

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<td>CAR 127</td>
<td>Introduction to Construction Lab</td>
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Total Credits: 24-29

**Painter, Interior Finish - 4602013049**
(Of Offered at BSC, HZC, JFC, SEC)

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Total Credits: 6

**Painter, Paper Hanger - 4602013129**
(Of Offered at BSC, HZC, JFC, SEC)

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<tr>
<td>INF 111</td>
<td>Advanced Painting</td>
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<td>INF 121</td>
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Total Credits: 8

**Residential Carpenter - 4602013059**
(Of Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC)

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<td>Intro to Construction</td>
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<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
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<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
<td>3</td>
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<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations - Lab</td>
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<tr>
<td>CAR 190</td>
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<td>CAR 196</td>
<td>Light Frame Construction II - Ceilings and Roofs</td>
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<td>CAR 197</td>
<td>Light Frame Construction II - Ceilings and Roofs-Lab</td>
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<tr>
<td>CAR 200</td>
<td>Light Frame Construction III - Exterior and Interior Finish</td>
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<td>CAR 201</td>
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Total Credits: 32
Residential Site Layout Assistant - 4602013079
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

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<th>Course</th>
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<th>Credits</th>
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<td>CAR 126</td>
<td>Intro to Construction</td>
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<tr>
<td>CAR 127</td>
<td>Intro to Construction Lab</td>
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<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
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<td>CAR 141</td>
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*Suggested Technical Electives:

(These courses (technical or general education) may be taken as approved by the Construction Technology Program Coordinator.

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<th>Course</th>
<th>Description</th>
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<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
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<td>ISX 100</td>
<td>Industrial Safety</td>
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<td>CAR 150</td>
<td>Construction Formwork</td>
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<td>CAR 151</td>
<td>Construction Formwork Lab</td>
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<td>Light Frame Construction I-Floors and Walls</td>
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<td>Light Frame Construction I-Floors and Walls</td>
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*Suggested General Education Electives:

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<td>COM 181</td>
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Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.

Rough Carpenter - 4602013089
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC)

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<td>CAR 127</td>
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<td>CAR 140</td>
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<td>CAR 191</td>
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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 Kentucky Board of Cosmetology. As required by the Kentucky Board of Cosmetology, the applicant shall furnish proof that he or she has earned a high school 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 1500 hours of instruction, program graduates are eligible to take the examination administered by the National-Interstate Council of State Boards of Cosmetology (NIC) to become licensed cosmetologists.

After successful completion of the prescribed 750 hours of instruction, program graduates are eligible to take the examination administered by the National-Interstate Council of State Boards of Cosmetology (NIC) to become licensed cosmetology instructors.

After successful completion of the prescribed 450 hours of instruction, program graduates are eligible to take the examination administered by the National-Interstate Council of State Boards of Cosmetology (NIC) to become licensed nail technicians.

After successful completion of the prescribed 750 hours of instruction, program graduates are eligible to take the examination administered by the National-Interstate Council of State Boards of Cosmetology (NIC) to become licensed estheticians.

Diploma

Cosmetologist - 1204014019
(Offered at ASC, BLC, BSC, HZC, JFC, SMC, WKC)

General Education:

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<td>1</td>
<td>Written Communication, Oral Communications,</td>
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<td>or Humanities/Heritage</td>
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<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences,</td>
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<td></td>
<td>or Quantitative Reasoning</td>
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Technical Courses:

- Digital Literacy .................................................. 3
- COS 108 Cosmetology I Theory AND ................................6
- COS 109 Cosmetology I Practical Application OR .......... 6
- COS 114 Cosmetology I ........................................... 14
- COS 118 Cosmetology II Theory AND ........................... 5
- COS 119 Cosmetology II Practical Application OR .......... 7
- COS 116 Cosmetology II ........................................... 14
- COS 228 Cosmetology III Theory AND ........................... 5
- COS 229 Cosmetology III Practical Application OR .......... 7
- COS 218 Cosmetology III ........................................... 14
- COS 238 Cosmetology IV Theory AND ........................... 6
- COS 239 Cosmetology IV Practical Application OR .......... 6
- COS 222 Cosmetology Review ..................................... 6

Subtotal | 51 |

Total Credits | 57 |
Certificates

Apprentice Cosmetology Instructor - 1204013049
(Offered at ASC, BSC, HZC, JFC, SMC, WKC)

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Cosmetologist - 1204013039
(Offered at ASC, BLC, BSC, HZC, JFC, SMC, WKC)

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<td>229</td>
<td>Cosmetology III Practical Application OR</td>
<td>7</td>
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<tr>
<td>218</td>
<td>Cosmetology III</td>
<td>(14)</td>
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<tr>
<td>238</td>
<td>Cosmetology IV Theory AND</td>
<td>6</td>
</tr>
<tr>
<td>239</td>
<td>Cosmetology IV Practical Application OR</td>
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Esthetician - 1204093039
(Offered at)

<table>
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<th>Course</th>
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<tr>
<td>136</td>
<td>Esthetics I</td>
<td>13</td>
</tr>
<tr>
<td>146</td>
<td>Esthetics II</td>
<td>13</td>
</tr>
<tr>
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Nail Technician - 1204013059
(Offered at ASC, BSC, HZC, JFC, SMC)

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<tr>
<td>127</td>
<td>Nail Technology</td>
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<tr>
<td></td>
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</table>

Criminal Justice

The Criminal Justice Program prepares the student for entry level work in the fields of law enforcement, corrections, court systems, loss safety and prevention, and other related occupations. The Criminal Justice vocations evolved from jobs with minimal requirements to employment positions that require complex knowledge and skills. Criminal Justice Program Curriculum provides the student a foundation of theory, principles, and techniques employed by the criminal justice agencies. Graduates who complete an AAS Criminal Justice Degree may seek job opportunities on the federal, state, county, municipal levels of government, and private sectors of the criminal justice field.

Progression in the Criminal Justice Program is contingent upon the achievement of a grade of “C” or better in each CRJ course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale). The grading scale for criminal justice courses with a Pass/Fail scale, the grade of “P or Pass” meets the requirement for the Criminal Justice Program.

Criminal Justice Program Certificates are embedded in the Criminal Justice AAS Degree. The certificates are not stand alone certificates; therefore a student cannot receive financial aid for just a certificate. The student must be a Criminal Justice AAS Degree seeker in order to obtain program certificates.

Criminal background checks are currently not required for the Criminal Justice AAS Program; however students should understand that certain disqualifiers may hinder employment in the field of criminal justice.

Such disqualifiers include, but are not limited to the following: criminal convictions, substance abuse, offensive social media activities, excessive traffic related offenses, and visible tattoos and body piercings. Students seeking employment in the criminal justice field or related field should research the requirements and disqualifiers of their desired areas or agencies of employment.

Associate in Applied Science

Criminal Justice - 4301037039
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Available Completely Online

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
</tr>
<tr>
<td>POL 101</td>
<td>American Government OR</td>
</tr>
<tr>
<td>POL 255</td>
<td>State Government</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
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<td>Elective Courses (Can be Technical or General Education Elective courses)</td>
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<tr>
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<td><strong>Subtotal</strong></td>
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<tr>
<td>Digital Literacy OR General Education Elective</td>
<td>3</td>
</tr>
<tr>
<td>(Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course; if student does not have a digital literacy class then the student must choose a general education elective for the completion of the three (3) hours).</td>
<td></td>
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Technical Core Requirements:

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CRJ 102</td>
<td>Introduction to Corrections</td>
</tr>
<tr>
<td>CRJ 203</td>
<td>Community Corrections/Probation &amp; Parole</td>
</tr>
<tr>
<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
</tr>
<tr>
<td>CRJ 220</td>
<td>Introduction to Computer Forensics</td>
</tr>
<tr>
<td>CRJ 222</td>
<td>Prison and Jail Administration</td>
</tr>
<tr>
<td>CRJ 231</td>
<td>Legal Aspects of Corrections</td>
</tr>
<tr>
<td>CRJ 277</td>
<td>Introduction to Criminology</td>
</tr>
<tr>
<td>CRJ 290</td>
<td>Internship in Criminal Justice</td>
</tr>
<tr>
<td>CRJ 299</td>
<td>Selected Topics in Criminal Justice</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
</tr>
</tbody>
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Corrections Track - 430103703
(Offered at ASC, BLC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CRJ 204</td>
<td>Issues and Ethics in Criminal Justice</td>
</tr>
<tr>
<td>CRJ 204</td>
<td>Criminal Investigations</td>
</tr>
<tr>
<td>CRJ 216</td>
<td>Criminal Law</td>
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<tr>
<td>CRJ 217</td>
<td>Criminal Procedures</td>
</tr>
<tr>
<td>CRJ 295</td>
<td>Criminal Justice Capstone</td>
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</table>

Track Electives: (Choose 6 credit hours from the following courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CRJ 203</td>
<td>Community Corrections/Probation &amp; Parole</td>
</tr>
<tr>
<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
</tr>
<tr>
<td>CRJ 220</td>
<td>Introduction to Computer Forensics</td>
</tr>
<tr>
<td>CRJ 222</td>
<td>Prison and Jail Administration</td>
</tr>
<tr>
<td>CRJ 231</td>
<td>Legal Aspects of Corrections</td>
</tr>
<tr>
<td>CRJ 277</td>
<td>Introduction to Criminology</td>
</tr>
<tr>
<td>CRJ 290</td>
<td>Internship in Criminal Justice</td>
</tr>
<tr>
<td>CRJ 299</td>
<td>Selected Topics in Criminal Justice</td>
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<tr>
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<td></td>
<td><strong>Subtotal</strong></td>
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</table>

Total Credits: **61-64**
Technical Electives: (Choose 9 credit hours from the following courses)

CRJ 102 Introduction to Corrections ............................................. 3
CRJ 108 Advanced Firearms and Less Than Lethal Weapons ............ 4
CRJ 110 Principles of Asset Protection ........................................ 3
CRJ 201 Introduction to Criminalistics ....................................... 3
CRJ 203 Community Corrections/Probation & Parole .................... 3
CRJ 208 Delinquency and the Juvenile Justice System ................. 3
CRJ 210 Physical Security Technology and Systems ...................... 3
CRJ 211 Liability and Legal Issues ............................................ 3
CRJ 215 Introduction to Law Enforcement .................................. 3
CRJ 218 Police Supervision ...................................................... 3
CRJ 219 Police Recruit Defensive Tactics ................................... 4
CRJ 220 Introduction to Computer Forensics ............................... 3
CRJ 222 Prison and Jail Administration .................................... 3
CRJ 224 Basic Traffic Collision Investigation ............................ 4
CRJ 225 Driving and Traffic Enforcement for Law Enforcement .... 4
CRJ 230 Criminal Justice Courtroom Procedures ....................... 3
CRJ 231 Legal Aspects of Corrections ....................................... 3
CRJ 240 Introduction to Corporate and Industrial Security .......... 3
CRJ 245 Introduction to Business and Financial Fraud .............. 3
CRJ 277 Introduction to Criminology ........................................ 3
CRJ 279 Terrorism and Political Violence ................................ 3
CRJ 290 Internship in Criminal Justice ..................................... 3
CRJ 299 Selected Topics in Criminal Justice ............................... 1-3

Subtotal: 9

Technical Electives ................................................................. 0-3
Subtotal 0-3

Total Credits 61-64

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 277 Introduction to Criminology ........................................ 3
CRJ 279 Terrorism and Political Violence ................................ 3
CRJ 290 Internship in Criminal Justice ..................................... 3
CRJ 299 Selected Topics in Criminal Justice ............................... 1-3

Subtotal 9

Technical Elective ................................................................... 0-3
Subtotal 0-3

Total Credits 61-64

Security and Loss Prevention Track - 430103704

(Offered at ASC, BLC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SMC, WKC)

Available Completely Online

Required Course:

CRJ 110 Principles of Asset Protection ....................................... 3

Subtotal 3

Track Electives: (Choose 6 credit hours from the following courses)

CRJ 210 Physical Security Technology and Systems .................... 3
CRJ 211 Liability and Legal Issues ............................................ 3
CRJ 220 Introduction to Computer Forensics ............................... 3
CRJ 225 Introduction to Corporate and Industrial Security .......... 3
CRJ 245 Introduction to Business and Financial Fraud .............. 3
CRJ 290 Internship in Criminal Justice ..................................... 3
CRJ 299 Selected Topics in Criminal Justice ............................... 1-3

Subtotal: 9

Technical Elective ................................................................... 0-3
Subtotal 0-3

Total Credits 61-64

Certificate

Advanced Law Enforcement – 4301033069

(Offered BSC, BLC, MDC, MYC, SEC, SMC)

Available Completely Online

CRJ 107 Introduction to Firearms .............................................. 4
CRJ 108 Advanced Firearms and Less Than Lethal Weapons .......... 4
CRJ 204 Criminal Investigations .................................................. 3
CRJ 215 Criminal Justice Courtroom Procedures ....................... 3
CRJ 221 Police Recruit Defensive Tactics .................................... 4
CRJ 224 Basic Traffic Collision Investigation ............................ 4
CRJ 225 Driving and Traffic Enforcement for Law Enforcement .... 4

Total 23

Computer Forensics - 4301033019

(Offered ASC, BLC, ELC, GTW, HPC, JFC, MDC, MYC, OWC, SMC, WKC)

Available Completely Online

CRJ 100 Introduction to Criminal Justice OR ............................. 3
CRJ 204 Criminal Investigations .................................................. 3
CRJ 220 Introduction to Computer Forensics for Criminal Justice ... 3
CRJ 230 Criminal Justice Courtroom Procedures ....................... 3
CTT 105 Introduction to Computers .............................................. 3
CTT 111 Computer Hardware and Software ................................. 4
CTT 160 Introduction to Networking Concepts OR ...................... 4
CTT 161 Introduction to Networks .............................................. 4
CTT 180 Security Fundamentals ................................................ 4

Total 23

Certificates

Corrections - 4301033039

(Offered ASC, BLC, ELC, GTW, HPC, JFC, MYC, SEC, SMC, WKC)

Available Completely Online

CRJ 102 Introduction to Corrections ............................................ 3
CRJ 203 Community Corrections: Probation and 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
### Criminal Justice Core – 4301033029
*(Offered ASC, BSC, BLC, ELC, GTW, HPC, JFC, MDC, MYC, SEC, SMC, WKC)*

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<th>Credits</th>
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<tbody>
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<td>CRJ 100</td>
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<td>CRJ 202</td>
<td>Issues and Ethics in Criminal Justice</td>
<td>3</td>
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<td>CRJ 204</td>
<td>Criminal Investigations</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 216</td>
<td>Criminal Law</td>
<td>3</td>
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<tr>
<td>CRJ 217</td>
<td>Criminal Procedures</td>
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### Law Enforcement – 4301033049
*(Offered ASC, BSC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)*

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<tr>
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<td>3</td>
</tr>
<tr>
<td>CRJ 204</td>
<td>Criminal Investigations</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 208</td>
<td>Delinquency and Juvenile Justice System</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 211</td>
<td>Liability and Legal Issues</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 215</td>
<td>Introduction to Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 218</td>
<td>Police Supervision</td>
<td>3</td>
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### Security and Loss Prevention – 4301033059
*(Offered ASC, BSC, BLC, ELC, GTW, HPC, MYC, SEC, SMC, WKC)*

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<td>CRJ 110</td>
<td>Principles of Asset Protection</td>
<td>3</td>
</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 220</td>
<td>Introduction to Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 240</td>
<td>Introduction to Corporate Security</td>
<td>3</td>
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<tr>
<td><strong>Total:</strong></td>
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### Culinary Arts – 120503702
*(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)*

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>Area</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Written Communication</td>
<td>3</td>
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<tr>
<td></td>
<td>Oral Communications</td>
<td>3</td>
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<tr>
<td><strong>Required General Education Hours</strong></td>
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### Culinary Arts Technical Core

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Credits</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 250</td>
<td>Garde Manger</td>
<td>4</td>
</tr>
<tr>
<td>CUL 125</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 211</td>
<td>Basic Food Production</td>
<td>4</td>
</tr>
<tr>
<td>CUL 215</td>
<td>Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>CUL 230</td>
<td>Basic Nutrition OR</td>
<td>3</td>
</tr>
<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>CUL 240</td>
<td>Meats, Seafood, and Poultry</td>
<td>4</td>
</tr>
<tr>
<td>CUL 270</td>
<td>Human Relations Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>CUL 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></td>
<td>Digital Literacy*</td>
<td>0-3</td>
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<tr>
<td><strong>Required Technical Core Hours</strong></td>
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<td><strong>32-36</strong></td>
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</tbody>
</table>

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

### Catering and Personal Chef Degree Track – 120503701
*(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Area</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Technical Core</td>
<td>32-36</td>
</tr>
<tr>
<td>CUL 220</td>
<td>Advanced Baking and Pastry Arts</td>
<td>4</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship AND</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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<tr>
<td><strong>Total Hours</strong></td>
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<td><strong>62-67</strong></td>
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### Culinary Arts Degree Track – 120503702
*(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Area</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>General Education</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Technical Core</td>
<td>32-36</td>
</tr>
<tr>
<td>CUL 220</td>
<td>Advanced Baking and Pastry Arts</td>
<td>4</td>
</tr>
<tr>
<td>CUL 260</td>
<td>International and Classical Cuisine OR</td>
<td>4</td>
</tr>
<tr>
<td>CUL 235</td>
<td>Farm to Table OR</td>
<td>4</td>
</tr>
<tr>
<td>CUL 225</td>
<td>Professional Confection and Pastry Arts</td>
<td>4</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>60-65</strong></td>
</tr>
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</table>

### Food and Beverage Management Degree Track – 120503703
*(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Area</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>General Education</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Technical Core</td>
<td>32-36</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
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<tr>
<td>CUL 299</td>
<td>Culinary Arts Cooperative Education Experience</td>
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### Diplomas

### Catering and Personal Chef - 1205034019
*(Offered at ASC, BSC, BLC, ELC, GTW, HPC, JFC, MDC, MYC, SEC, SMC, WKC)*

<table>
<thead>
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<th>General Education*</th>
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<tr>
<td>Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
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* 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.
Culinary Arts - 1205034029

(Offered at ASC, BSC, ELC, JFC, 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

Technical or Support Courses
Technical Core ........................................ 32-36
CUL 220 Advanced Baking and Pastry Arts .............. 4
BAS 298 Garde Manger .................................. 4
CUL 298 Culinary Arts Practicum Experience OR ... 2-3
CUL 299 Culinary Arts Cooperative Education Experience ... (2-3)
Technical Support Total .................................. 44-49
Total Hours 50-55

Food and Beverage Management - 1205034039

(Offered at ASC, BSC, ELC, JFC, 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

Technical or Support Courses
Technical Core ........................................ 32-36
BAS 160 Introduction to Business ....................... 3
BAS 170 Entrepreneurship OR ........................ 3
BAS 283 Principles of Management .................... (3)
BAS 282 Principles of Marketing ........................ 3
CUL 298 Culinary Arts Practicum Experience OR ... 2-3
CUL 299 Culinary Arts Cooperative Education Experience ... (2-3)
Technical Support Total .................................. 44-49
Total Hours 50-55

Certificates

Advanced Food and Beverage Management - 1205033089

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

CUL 100 Introduction to Culinary Arts OR .............. 2
CUL 105 Applied Introduction to Culinary Arts .......... (2)
CUL 250 Garde Manger ................................ 4
CUL 125 Sanitation and Safety ........................ 2
CUL 211 Basic Food Production .......................... 4
CUL 215 Basic Baking .................................. 4
CUL 230 Basic Nutrition OR ............................ 3
NFS 101 Human Nutrition and Wellness ................ (3)
CUL 240 Meats, Seafood, and Poultry ................. 4
CUL 270 Human Relations Management ............... 3
CUL 280 Cost and Control ................................ 3
CUL 285 Front of the House OR ......................... 3
CUL 290 Front of the House/Catering .................... (4)
BAS 160 Introduction to Business ....................... 3
BAS 170 Entrepreneurship OR ......................... 3
BAS 283 Principles of Management .................... (3)
BAS 282 Principles of Marketing ........................ 3
CUL 298 Culinary Arts Practicum Experience OR ... 2-3
CUL 299 Culinary Arts Cooperative Education Experience ... (2-3)
Total Hours 43-45

Advanced Catering - 1205033079

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

Catering Certificate ..................................... 16
Basic Food Production .................................. 4
CUL 220 Advanced Baking and Pastry Arts .............. 4
CUL 240 Meats, Seafood, Poultry ....................... 4
CUL 260 International and Classical Cuisine .......... 4
CUL 270 Human Relations Management ............... 3
CUL 280 Cost and Control ................................ 3
BAS 160 Introduction to Business ....................... 3
BAS 170 Entrepreneurship OR ......................... 3
BAS 283 Principles of Management .................... (3)
BAS 282 Principles of Marketing ........................ 3
Total Hours 41-44

Advanced Culinary Arts - 1205033069

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

Culinary Arts Technical Core ............................ 32-36
Culinary Arts Degree Track Courses .................. 10-11
Total Hours 42-47

Baking - 1205033109

(Offered at ASC, JFC, MYC, SKY, SMC, WKC)

CUL 100 Introduction to Culinary Arts OR .............. 2
CUL 105 Applied Introduction to Culinary Arts .......... (2)
CUL 250 Garde Manger ................................ 4
CUL 125 Sanitation and Safety ........................ 2
CUL 215 Basic Baking .................................. 4
CUL 290 Front of the House/Catering .................... 4
Total Hours 12

Catering - 1205033059

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

CUL 100 Introduction to Culinary Arts OR .............. 2
CUL 105 Applied Introduction to Culinary Arts .......... (2)
CUL 250 Garde Manger ................................ 4
CUL 125 Sanitation and Safety ........................ 2
CUL 215 Basic Baking .................................. 4
CUL 290 Front of the House/Catering .................... 4
Total Hours 16
Dental Hygiene

The Dental Hygiene program prepares graduates to use their skill and knowledge as dental hygienists to fulfill the role of a licensed oral health professional who is responsible for preventing and treating oral diseases in a variety of settings. The curriculum includes courses in general education and in dental hygiene as required by the Commission on Dental Accreditation (CODA) and Kentucky state dental practice act. The Dental Hygiene curriculum is organized around a clearly-defined, comprehensive educational experience that combines general education and dental hygiene courses through didactic, laboratory, and clinical courses in order that students may apply scientific evidence-based knowledge in the performance of dental hygiene procedures. Students are also required to attend rotations through outside agencies for enrichment and must provide their own transportation.

Graduates are eligible to take state, regional and national board exams such as National Board Dental Hygiene Examination (NBDHE) and American Board of Dental Examiners (ADEX) clinical boards. Acceptance into the Dental Hygiene 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 the online posted deadline. Students enrolled in the Dental Hygiene program must achieve a minimum grade of “C” or better in each Dental Hygiene and approved biological science course. Documentation of digital literacy as defined by KCTCS and Cardiopulmonary resuscitation (CPR) are required prior to admission to DHP courses.

Note: The Kentucky Board of Dentistry may deny a license to practice dental hygiene to graduates who have been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice dental hygiene.

Associate in Applied Science

Dental Hygiene - 5106027019
(Offered at BLC)

General Education Core

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Total Credits: 29

Technical Courses

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Total Credits: 29

Food and Beverage Management - 1205033039
(Offered at ASC, BSC, ELC, JFC, MYC, SMC, WKC)

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Total Credits: 29

Digital Hygiene

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Note: The Kentucky Board of Dentistry may deny a license to practice dental hygiene to graduates who have been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice dental hygiene.

Associate in Applied Science

Dental Hygiene - 5106027019
(Offered at BLC)

General Education Core

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Total Credits: 29

Food and Beverage Management - 1205033039
(Offered at ASC, BSC, ELC, JFC, MYC, SMC, WKC)

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Total Credits: 29

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

Fundamentals of Culinary Arts - 1205033029
(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

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Total Credits: 29

Professional Baking and Pastry Arts - 1205033129
(Offered at SMC, WKC)

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Total Hours: 16

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Total Credits: 29
Dental Assisting/Dental Hygiene Integrated Program

The Dental Assisting/Dental Hygiene Integrated Program prepares graduates to function as dental auxiliaries.

The Dental Assisting program prepares the student to function as a dental assistant under the supervision of a dentist. As a member of the dental health team, the dental assistant is responsible for providing such services as assisting the dentist with operative and surgical procedures, manipulation of dental materials, taking radiographs, providing oral health instructions and performing office management tasks.

Dental Assisting students will be awarded a Diploma in Dental Assisting and will be eligible to take the Dental Assisting National Board (DANB). Graduates will also be certified in radiation health and safety, coronal polishing and expanded duties (lab competency). The dental assisting curriculum includes courses in general education as well as dental assisting as required by the Commission on Dental Accreditation. The program provides comprehensive educational experiences through lectures, clinical externship rotations, laboratory and related study. Students must achieve a minimum grade of “C” in each Dental Assisting (DAS) course, Dental Assisting/Hygiene (DAH) course, and approved science courses.

The Dental Hygiene Program prepares the student to function as a dental hygienist on a dental auxiliary team under the supervision of a dentist. The curriculum includes content areas in general studies, biomedical sciences, dental sciences, clinical sciences, radiography, periodontology, and dental hygiene clinical experience. The program provides comprehensive educational experiences through lectures, clinical, and related study in order that graduates may apply scientific knowledge in the performance of dental hygiene procedures. Students must achieve a minimum grade of “C” in each Dental Hygiene (DHG) course, Dental Assisting/Hygiene (DAH) course, and approved science courses. Upon completion, graduates are eligible to apply to take the Dental Hygiene National Board Examination. As the only licensed dental auxiliaries, dental hygienists may be employed in dental offices, clinics, dental schools, public health and government agencies.

The programs are accredited by the Commission on Dental Accreditation, a specialized accrediting body of the American Dental Association. The commission is nationally recognized by the U.S. Department of Education to accredit dental and dental related educational programs at the post-secondary level.

**Documentation of digital literacy as defined by KCTCS is required prior to admission to DHP courses. CPR certification for the healthcare provider must be obtained prior to enrolling in DHP 120 and certification must be kept current throughout the Program.**

General Education Classes:
- ENG 101 Writing I .................................................. 3
- ENG 102 Writing II .................................................. 3
- BIO 137 Human Anatomy & Physiology I .................. 4
- BIO 139 Human Anatomy & Physiology II ................. 4
- BIO 225 Medical Microbiology ................................ 4
- PSY 110 General Psychology .................................... 3
- SOC 101 Introductory Sociology .................................. 3
- MAT 110 Applied Mathematics OR .......................... 3
- MAT 150 College Algebra and Functions ..................... (3)
- Oral Communications .................................................. 3
- Heritage/ Humanities ................................................... 3
- Subtotal .......................................................... 33

Integrated Classes:
- DAH 101 Infection Control and Medical Emergencies .... 2
- DAH 121 Dental Sciences .......................................... 3
- DAH 124 Materials in Dentistry .................................. 2
- DAH 131 Oral Pathology ............................................ 3
- DAH 135 Oral Radiology ............................................ 2
- DAH 235 Practice Management ................................. 1
- Subtotal .......................................................... 13

Dental Hygiene Only Classes:
- DHG 120 Pre-Clinical Dental Hygiene ......................... 3
- DHG 130 Clinical Dental Hygiene I ............................ 3
- DHG 132 Pharmacology ............................................. 2
- DHG 134 Dental Nutrition .......................................... 2
- DHG 136 Periodontology ........................................... 1
- DHG 220 Clinical Dental Hygiene II ........................... 4
- DHG 226 Advanced Periodontology ........................... 2
- DHG 230 Clinical Dental Hygiene III .......................... 3
- DHG 238 Community Dental Health Issues .................. 2
- Subtotal .......................................................... 22

Total Credit Hours 68

Elective
- DAH 221 Local Anesthesia and Nitrous Oxide Sedation .... 2

Diploma

Dental Assisting - 5106024019

(Offered in West Consortium – Credential granted by Ashland CTC, Big Sandy CTC, West KY CTC)

General Education Classes:

Program Related Classes
- BIO 135 Basic Anatomy & Physiology with Laboratory OR ... 4
- BIO 137 Human Anatomy & Physiology I AND ............... (4)
- BIO 139 Human Anatomy & Physiology II .................. (4)
- Three credits from Written Communication, Oral Communications, or Heritage/ Humanities .................. 3
- PSY 110 General Psychology * ................................. (3)

- Required at Bluegrass CTC, recommended at West Kentucky CTC
- Subtotal .......................................................... 7-14

Integrated Classes
- DAH 101 Infection Control and Medical Emergencies .... 2
- DAH 121 Dental Sciences .......................................... 3
- DAH 124 Materials in Dentistry .................................. 2
- DAH 131 Oral Pathology ............................................ 3
- DAH 135 Oral Radiology ............................................ 2
- DAH 235 Practice Management ................................. 1
- Subtotal .......................................................... 13
Diagnostic Medical Sonography

Diagnostic Medical Sonography is a highly-skilled profession which uses specialized equipment to create images of structures inside the human body used by physicians to make medical diagnoses. Graduates of the program are qualified to provide patient services using diagnostic techniques under the supervision of a licensed physician.

This program contains four tracks, the general/vascular track, the general track, the vascular track and the cardiac track. The general/vascular track prepares the graduate to be a general sonographer who is qualified to perform vascular ultrasound. Sonographers have extensive, direct patient contact that may include performing some invasive procedures. The general track prepares the graduate to perform sonograms on the abdominal, small parts and OB/GYN applications. The vascular track prepares the graduate to perform sonograms on the celiac, peripheral arterial, peripheral venous and abdominal vascular applications. The cardiac track prepares the graduate to perform cardiovascular sonograms.

Sectional anatomy, ultrasonic instrumentation and imaging are the major components in this program. Skills are developed through clinical experiences using diagnostic imagery equipment.

An advanced option (certificate) in vascular sonography is offered for candidates who are currently employed and registry eligible in Diagnostic Medical Sonography.

The student is exposed to and expected to acquire skills, attitudes, and habits that are generally common to all professionals in the medical field. Graduates will be prepared for a professional career in the opted sonography field.

CPR requirement must be successfully completed prior to enrolling in the first sonography course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course or its equivalent and digital literacy competency as defined by KCTCS are required prior to enrolling in the first sonography course.

Progression in the Diagnostic Medical Sonography program is contingent upon achievement of a grade of “C” or better in each Sonography course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Transportation to the community agencies is the responsibility of each student.

Note: Hours Exception (67-76 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.
A total of 17 credit hours must be completed from the following clinical courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Category</th>
<th>Credits</th>
<th>Offered At</th>
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</thead>
<tbody>
<tr>
<td>DMS 136</td>
<td>Clinical Education I</td>
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<td>DMS 230</td>
<td>Clinical Education II</td>
<td>Clinical</td>
<td>5-8</td>
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</tr>
<tr>
<td>DMS 240</td>
<td>Clinical Education III</td>
<td>Clinical</td>
<td>5-8</td>
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**Vascular Sonography Track – 510910707**

(Offered at BLC, ELC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Category</th>
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<tbody>
<tr>
<td>DMS 117</td>
<td>Vascular Sonography I</td>
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<td>DMS 118</td>
<td>Vascular Sonography II</td>
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<td>6</td>
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<tr>
<td>DMS 119</td>
<td>Ultrasonic Physics and Instrumentation</td>
<td>Clinical</td>
<td>6</td>
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<td>DMS 136</td>
<td>Vascular Clinical Education I</td>
<td>Clinical</td>
<td>4</td>
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<tr>
<td>DMS 204</td>
<td>Online Vascular Review</td>
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<td>DMS 206</td>
<td>Online Vascular Sonography III</td>
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<td>3</td>
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<td>DMS 236</td>
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**Certificates**

**Basic Cardiac Ultrasound Technology - 5109103059**

<table>
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<th>Course Name</th>
<th>Category</th>
<th>Credits</th>
<th>Offered At</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS 217</td>
<td>Basic Cardiac Ultrasound Technology</td>
<td>Vascular</td>
<td>3</td>
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**Basic Vascular Sonography Technology – 5109103069**

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<th>Offered At</th>
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<td>DMS 280</td>
<td>Basic Vascular Technology</td>
<td>Vascular</td>
<td>3</td>
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**Cardiac Sonography – 5109103079**

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<tr>
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<td>DMS 146</td>
<td>Cardiac Techniques I</td>
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<td>DMS 147</td>
<td>Cardiac Clinical Education I</td>
<td>Clinical</td>
<td>1</td>
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<tr>
<td>DMS 207</td>
<td>Cardiac Techniques II</td>
<td>Clinical</td>
<td>7</td>
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<td>DMS 216</td>
<td>Cardiac Techniques III</td>
<td>Clinical</td>
<td>3</td>
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<tr>
<td>DMS 246</td>
<td>Cardiac Review</td>
<td>Clinical</td>
<td>1</td>
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<tr>
<td>DMS 247</td>
<td>Cardiac Clinical Education II</td>
<td>Clinical</td>
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<td>DMS 248</td>
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**General Sonography -5109103089**

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<th>Offered At</th>
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</thead>
<tbody>
<tr>
<td>DMS 111</td>
<td>Abdominal Sonography</td>
<td>General Education</td>
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<td>DMS 116</td>
<td>OB/GYN Sonography</td>
<td>General Education</td>
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<tr>
<td>DMS 119</td>
<td>Ultrasonic Physics and Instrumentation</td>
<td>General Education</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>DMS 199</td>
<td>Online Physics Review</td>
<td>General Education</td>
<td>1</td>
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<tr>
<td>DMS 201</td>
<td>Online Abdomen Review</td>
<td>General Education</td>
<td>1</td>
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<td>DMS 202</td>
<td>Online OB/GYN Review</td>
<td>General Education</td>
<td>1</td>
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A total of 17 credit hours must be completed from the following clinical courses:

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Category</th>
<th>Credits</th>
<th>Offered At</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS 126</td>
<td>Clinical Education I</td>
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<tr>
<td>DMS 230</td>
<td>Clinical Education II</td>
<td>Clinical</td>
<td>5-8</td>
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</tr>
<tr>
<td>DMS 240</td>
<td>Clinical Education III</td>
<td>Clinical</td>
<td>5-8</td>
<td></td>
</tr>
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<td><strong>Total</strong></td>
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</table>

**Diesel Technology**

Emphasizes the skills needed to analyze malfunctions and repair, rebuild and maintain construction equipment, agriculture equipment, or medium and heavy trucks in this program of study. Provides instruction and experience in systems such as diesel engines, fuel injection, onboard computers, transmissions, steering and suspension, and brakes.

A student must receive a grade of “C” or better to receive credit for successful completion of courses in the diesel technology curriculum.

**Associate in Applied Science**

Diesel Technology - 4706057039

(Offered at BLC, GTW, HPC, OW, SKY, SEC)

**General Education:**

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

**Subtotal** ........................................................ 15

**Technical Core:**

- Computer/Digital Literacy ....................................... 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 OR ............... (2)
- ELT 110 Circuits I ............................................... (5)
- ADX 170 Climate Control .......................................... 3
- ADX 171 Climate Control Lab .................................... 1
- 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 140 Hydraulics AND .......................................... 3
- DIT 141 Hydraulics Lab OR ..................................... 2
- FPX 100 Fluid Power AND ........................................ (3)
- FPX 101 Fluid Power Lab ......................................... (2)
- DIT 150 Power Trains ............................................. 3
- DIT 151 Power Trains 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** ........................................................ 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.
Agriculture Diesel Technician Track - 470605701

(Offered at ELC, HPC, OWC, SEC)

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DIT 152</td>
<td>Powertrain for Construction Equipment</td>
<td>3</td>
</tr>
<tr>
<td>DIT 153</td>
<td>Powertrain for Construction Equipment Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 121</td>
<td>Introduction to Maintenance Welding Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 120</td>
<td>Shielded Metal Arc-Welding (SMAW) AND</td>
<td>3</td>
</tr>
<tr>
<td>WLD 121</td>
<td>Shielded Metal Arc-Welding (SMAW) Lab</td>
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</table>

Subtotal: 8-10

Total: 62-64

Construction Equipment Technician Track - 470605702

(Offered at ELC, OWC, SEC)

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIT 121</td>
<td>Introduction to Maintenance Welding Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 120</td>
<td>Shielded Metal Arc-Welding (SMAW) AND</td>
<td>3</td>
</tr>
<tr>
<td>WLD 121</td>
<td>Shielded Metal Arc-Welding (SMAW) Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 123</td>
<td>Undercarriage Lab</td>
<td>3</td>
</tr>
<tr>
<td>DIT 152</td>
<td>Powertrain for Construction Equipment</td>
<td>3</td>
</tr>
<tr>
<td>DIT 153</td>
<td>Powertrain for Construction Equipment Lab</td>
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Subtotal: 11-13

Total: 65-67

Medium and Heavy Truck Technician Track - 470605703

(Offered at BLC, ELC, GTW, OWC, SKY, SEC)

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
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<tr>
<td>DIT 180</td>
<td>Brakes</td>
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</tr>
<tr>
<td>DIT 181</td>
<td>Brakes Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 160</td>
<td>Steering and Suspension</td>
<td>3</td>
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<tr>
<td>DIT 161</td>
<td>Steering and Suspension Lab</td>
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Subtotal: 10

Total: 64

Recommended Technical Electives (Program Coordinator Approval required)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>DIT 180</td>
<td>Brakes</td>
<td>3</td>
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<tr>
<td>DIT 181</td>
<td>Brakes Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 160</td>
<td>Steering and Suspension</td>
<td>3</td>
</tr>
<tr>
<td>DIT 161</td>
<td>Steering and Suspension Lab</td>
<td>2</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
<td>3</td>
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<td>IMT 101</td>
<td>Welding for Maintenance Lab OR</td>
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<td>WLD 120</td>
<td>Shielded Metal Arc-Welding (SMAW) AND</td>
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<td>WLD 121</td>
<td>Shielded Metal Arc-Welding (SMAW) Lab</td>
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<td>DIT 123</td>
<td>Undercarriage Lab</td>
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<td>Powertrain for Construction Equipment</td>
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<td>DIT 153</td>
<td>Powertrain for Construction Equipment Lab</td>
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<td>DIT 105</td>
<td>Mechanical Concepts OR</td>
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<td>PMX 100</td>
<td>Precision Measurement</td>
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<td>Special Problems I</td>
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<td>Special Problems II</td>
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<td>DIT 199</td>
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<td>DIT 299</td>
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(Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)

Diplomas

Agriculture Equipment Technician - 4706054039

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

General Education

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

Area 2 = Social/Behavioral Science, 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 .................................... 2

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 .................. 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 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 ....................................... 3

FPX 101 Fluid Power Lab ....................................... 2

DIT 150 Power Trains ............................................ 3

DIT 152 Power Trains Lab ..................................... 2

DIT 153 Powertrain for Construction Equipment .......... 3

DIT 190 Electrical Systems for Diesel Equipment .......... 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, HZC, MYC, OWC, SEC, WKC)

General Education

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

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

Subtotal: 6
Technical Courses
Computer/Digital Literacy course OR demonstrated competency ........................................... 0-3
ADX 170 Climate Control .................................................. 3
ADX 171 Climate Control Lab ........................................... 1
BEX 100 Basic Electricity for Non-Majors AND .................. 3
BEX 101 Basic Electricity Lab for Non-Majors OR ................. 2
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 154 Engine Repair .................................................. 3
DIT 155 Engine Repair Lab ............................................. (2)
DIT 180 Brakes ............................................................ 2
DIT 181 Brakes 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 ................................................................. 46-49
Total ................................................................. 52-55

Recommended Technical Electives (Program Coordinator Approval required)
DIT 180 Brakes ............................................................ 2
DIT 181 Brakes Lab ....................................................... 2
DIT 160 Steering and Suspension ..................................... 3
DIT 161 Steering and Suspension Lab ................................ 2
DIT 161 Steer and Suspension 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)

Medium and Heavy Truck Technician - 4706054049
(Offered at ASC, BSC, ELC, GTW, HZC, MYC, OW, SEC, SMC, WKC)

General Education
Area 1 = Written Communication, Oral Communications, or Humanities/Heritage .................................................. 3
Area 2 = Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning .................................................... 3
Subtotal ................................................................. 6

Technical Courses
Computer/Digital Literacy course OR demonstrated competency ........................................... 0-3
ADX 170 Climate Control .................................................. 3
ADX 171 Climate Control Lab ........................................... 1
BEX 100 Basic Electricity for Non-Majors AND .................. 3
BEX 101 Basic Electricity Lab for Non-Majors OR ................. 2
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 140 Hydraulics AND ............................................... 3
DIT 141 Hydraulics Lab OR ............................................. (2)
FPX 100 Fluid Power AND ............................................. (3)
FPX 101 Fluid Power Lab .............................................. (2)
DIT 150 Power Trains .................................................... 3
DIT 151 Power Trains Lab ............................................... 2
DIT 160 Steering and Suspension ..................................... 2
DIT 161 Steering and Suspension Lab ................................ 2
DIT 180 Brakes ............................................................ 3
DIT 181 Brakes 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

Certificate
Agriculture Equipment Mechanic Helper - 4706053109
(Offered at ASC, BSC, ELC, HPC, MYC, OW, SEC, SMC, WKC)

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 OR ................... 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 OR ...... 2
DIT 112 Diesel Engine Repair .......................................... 3
DIT 113 Diesel Engine Repair Lab .................................... 2
DIT 152 Powertrain for Construction Equipment ............... 3
DIT 153 Powertrain for Construction Equipment Lab .......... 2
DIT 299 Cooperative Education ...................................... 1
DIT 299 Cooperative Education II ................................... 2

Total ................................................................. 20

Construction Equipment Mechanic Helper - 4706053019
(Offered at ASC, BSC, ELC, HZC, MYC, OW, SEC, WKC)

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 OR ................... 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 OR ...... 2
DIT 112 Diesel Engine Repair .......................................... 3
DIT 113 Diesel Engine Repair Lab .................................... 2
DIT 152 Powertrain for Construction Equipment ............... 3
DIT 153 Powertrain for Construction Equipment Lab .......... 2
DIT 123 Undercarriage Lab ............................................. 3

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<tr>
<td>ADX 150</td>
<td>Engine Repair AND</td>
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<td>Engine Repair Lab</td>
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<td>DIT 112</td>
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<tr>
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<td>Undercarriage Lab</td>
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Digital Printing Technology

The 3D Printing Technician – Level I certificate prepares individuals to design for and apply 3D printing technology, also known as additive manufacturing, towards a host of basic applications. Areas of study will incorporate a foundational understanding of the technology, the equipment, thermoplastics and other materials, design applications, related software, business applications, scanning technology, and other related concepts. Upon completion of the certificate, students will be versed in the broad impact of the technology and prepared for an entry level career within an industry that applies 3D printing technology in some fashion.

Certificate

3D Printing Technician- Level I - 1506073059
(Offered at ASC, SMC)

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<td>Introduction to 3D Printing Technology OR</td>
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<td>DPT 102</td>
<td>3D Printing Technology Fundamentals AND</td>
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<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>(3)</td>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business OR</td>
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<td>BAS 170</td>
<td>Entrepreneurship</td>
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<td>DPT 150</td>
<td>Introduction to Engineering Mechanics for 3D Printing</td>
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<td>DPT 280</td>
<td>Special Projects for 3D Printing, Level I</td>
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<tr>
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Education

The Associate in Applied Science Degree (AAS) – Education; Educator Preparation is a pathway designed for students who wish to begin coursework at a community and technical college and then apply for transfer admission to a teacher education program at a four-year college or university.

Associate in Applied Science

Education - 1315017019

Educator Preparation Track - 131501703
(Offered at BL, BSC, GTW, JFC, SEC)

General Education

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<td>ENG 102</td>
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<td>COM 181</td>
<td>Basic Public Speaking</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
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<td>Arts and Humanities I</td>
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<td>HIS 108</td>
<td>History of the United States Through 1865</td>
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<tr>
<td>HIS 109</td>
<td>History of the United States Since 1865</td>
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<td>MAT 146</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>(3)</td>
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<td></td>
<td>OR</td>
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<tr>
<td>MA 109</td>
<td>College Algebra</td>
<td>(3)</td>
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<td>OR</td>
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<td>MA 111</td>
<td>Contemporary Mathematics</td>
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<td>Natural Sciences 2</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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<td>Social/Behavioral Sciences I</td>
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Technical Core or Support Core (Common)

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<tr>
<td>EDU 201</td>
<td>An Introduction to American Education</td>
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<td>EDP 202</td>
<td>Human Development and Learning</td>
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<tr>
<td>EDP 203</td>
<td>Teaching Exceptional Learners in Regular Classrooms OR</td>
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<tr>
<td>EDP 260</td>
<td>Motivation and Classroom Management#</td>
<td>(3)</td>
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<td><strong>Total Common</strong></td>
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Technical or Support Courses

Technical or Support Electives 15

Total Credit Hours 60-61

1 At least one course must be selected from the identified Cultural Studies course list.
2 Must include at least one Natural Science course with a laboratory experience.
3 Students must fulfill the Digital Literacy requirement by means specified in the KCTCS Catalog. A student who fulfills the Digital Literacy requirement by means other than earning credit for an approved KCTCS digital literacy course must take three (3) credit hours of coursework approved by the program coordinator.
4 EDP 260 is intended for Jefferson Community & Technical College students transferring to the University of Louisville (excluding Special Education majors.)

Emergency Medical Services - Paramedic

Provides a comprehensive course of study that prepares the graduate for licensure as a Paramedic (EMTP). The curriculum is structured based on the National EMS Education Standards and regulations set forth by the Kentucky Board of Emergency Medical Services (KBEMS). The three-phase curriculum is designed to provide the student with the cognitive knowledge, psychomotor skills, and affective behaviors necessary to competently perform as a Paramedic. The EMS program prepares students to function in the emergency medical profession as a Paramedic in a variety of environments. Graduates primarily provide pre-hospital emergency care to acutely ill and/or injured individuals while working on an ambulance, mobile advanced life support unit, industrial on-site unit, fire department, emergency department, and other agencies.

Graduates are eligible to apply to take the National Registry Paramedic Exam. Students may earn either a Certificate or Associate in Applied Science Degree at the Paramedic level. Credit may be awarded to currently practicing paramedics towards the Associate in Applied Science Degree. Graduates must comply with college and program admission requirements.

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.

Applications 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 in Applied Science Degree 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 change their career path while in the program without reapplying for admission to the college.

Students can receive a certificate as an Electrocardiogram Technician by completing EMS 150. EMS 150 will prepare students to perform and interpret electrocardiograms in a hospital or clinical setting.

**Associate in Applied Science**

**Emergency Medical Services - Paramedic - 5109047029**

(Offered at BLC, GTW, HPC, HZC, JFC, MDC, OWC, SMH)

**General Education:**

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<td>PSY 110</td>
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<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory*</td>
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<td>EMS 200</td>
<td>Introduction to Paramedicine</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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<td>EMS 215</td>
<td>Clinical Experience I</td>
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<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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<td>EMS 225</td>
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<td>EMS 230</td>
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<td>EMS 270</td>
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Total Credits 60-64

*BIO 137 & BIO 139 may be substituted for BIO 135

**Certificate**

**Electrocardiogram Technician – 5109043060**

(Offered at HZC, MDC)

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Total Credits 5

**Energy Management**

The Energy Management (EM) degree is designed to give students the skills and national certifications required to receive employment in the rapidly growing field of energy management and positions in the energy industry. The embedded certificates include: the Center for Energy Workforce Development (CEWD) Energy Industry Fundamental Certificate, the Building Performance Institute’s Building Specialist certificate, The North American Board of Certified Energy Practitioners’ Entry Level Solar certification, the Leadership in Energy and Environmental Design’s Green Associate certification, and the Environmental Protection Agency’s Article 608 certification. The program is designed to meet the needs of non-traditional and working students by having courses absent of pre-requisites. The program has several embedded certificates that will give many exit points to employment. Graduates of the EM program will be qualified to recommend improvements to commercial and residential buildings by analyzing subsystems that contribute to higher energy usage.

**Associate in Applied Science**

**Energy Management -1505037039**

(Offered at MDC)

**General Education**

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<td>EMS 240</td>
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<td>EMS 250</td>
<td>Medical Emergencies II</td>
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<td>EMS 260</td>
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<td>EMS 270</td>
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Total Credits 45-49

**Technical Core**

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<td>ENM 111</td>
<td>Sustainability Management OR</td>
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<td>ENM 121</td>
<td>Solar Design and Applications</td>
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<td>ENM 200</td>
<td>Commercial Energy Analysis</td>
<td>3</td>
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<tr>
<td>ENM 210</td>
<td>Smart Grid Applications</td>
<td>3</td>
</tr>
<tr>
<td>ENM 230</td>
<td>Building Automation</td>
<td>3</td>
</tr>
<tr>
<td>ENM 240</td>
<td>Energy Analysis and Efficiency</td>
<td>4</td>
</tr>
<tr>
<td>ENM 250</td>
<td>Regulatory and Environmental Issues</td>
<td>3</td>
</tr>
<tr>
<td>ENM 260</td>
<td>Air Conditioning and Refrigeration Regulations</td>
<td>3</td>
</tr>
<tr>
<td>ENM 284</td>
<td>Applied Management Skills</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Subtotal 46

Total Credits 61
**Diploma**

**Energy Management - 1505034019**

*(Offered at MDC)*

**General Education**

- Natural Sciences ............................................. 3
- Written/Oral Communications ............................. 3
- **Subtotal** ..................................................... 6

**Technical Core**

- ENM 101 Energy Industry Fundamentals .................. 9
- ENM 111 Sustainability Management OR .................. 3
- One Study Abroad/Overseas Experience course (HRS 200, IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator) ................................ ............. 3
- ENM 121 Solar Design and Applications ................... 3
- ENM 200 Commercial Energy Analysis ..................... 3
- ENM 210 Smart Grid Applications .......................... 3
- AFT 220 The Integrated Power Grid ....................... 3
- ENM 230 Building Automation .................................. 3
- EGY 240 Energy Analysis and Efficiency .................. 4
- ENM 250 Regulatory and Environmental Issues .......... 3
- ENM 260 Air Conditioning and Refrigeration Regulations . 3
- BRX 120 Basic Blueprint Reading ............................ 3
- BAS 160 Introduction to Business ........................... 3
- BAS 283 Principles of Management OR .................... 3
- BAS 284 Applied Management Skills ....................... 3
- **Subtotal** ..................................................... 46

**Total Credits** .................................................. 52

**Certificates**

**Commercial Energy Analysis – 1505033099**

*(Offered at MDC)*

- ENM 111 Sustainability Management OR .................. 3
- One Study Abroad/Overseas Experience course (HRS 200, IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator) ................................ ............. 3
- ENM 200 Commercial Energy Analysis ..................... 3
- ENM 230 Building Automation .................................. 3
- ENM 250 Regulatory and Environmental Issues .......... 3
- ENM 260 Air Conditioning and Refrigeration Regulations . 3
- **Total Credits** .................................................. 15

**Fundamentals of Energy Production – 1505033089**

*(Offered at MDC)*

- ENM 101 Energy Industry Fundamentals .................. 9
- **Total Credits** .................................................. 9

**Sustainable Energy - 1505033109**

*(Offered at MDC)*

- ENM 111 Sustainability Management OR .................. 3
- One Study Abroad/Overseas Experience course (HRS 200, IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management Program coordinator) ................................ ............. 3
- ENM 121 Solar Design and Applications ................... 3
- AFT 220 The Integrated Power Grid ....................... 3
- ENM 210 Smart Grid Applications .......................... 3
- **Total Credits** .................................................. 12

**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 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

**Core**

- BAS 160 Introduction to Business .......................... 3
- EET 150 Transformers ........................................... 2
- EET 151 Transformers Lab ...................................... 1
- EBT 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
- Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) .................................................. 0-3
- **Subtotal** ..................................................... 26-29

**Technical Electives**

Any course listed below OR in the certificates listed below (not including courses in the technical core) OR as approved by the program coordinator ............................ 16

- COE 199 Cooperative Education (up to 8 credit hours) ...
- DFT 122 Introduction to Computer Aided Drafting .......
- **Subtotal** ..................................................... 16

**Total Credits** .................................................. 60-64
## Certificate

**Energy Efficiency and Analysis – 1505033079**  
*(Offered at BSC, BLC, GTW)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 170 Heat Load / Duct Design</td>
<td>3</td>
</tr>
<tr>
<td>EGY 240 Energy Efficiency and Analysis</td>
<td>4</td>
</tr>
<tr>
<td>Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.)</td>
<td>0-3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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</table>

**Energy Efficiency Electrical Controls Technician – 1505033049**  
*(Offered at GTW)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>EET 154 Electrical Construction I</td>
<td>2</td>
</tr>
<tr>
<td>EET 155 Electrical Construction I Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 250 National Electric Code</td>
<td>4</td>
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<tr>
<td>EET 252 Electrical Construction II</td>
<td>2</td>
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<tr>
<td>EET 253 Electrical Construction II Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELT 110 Circuits I</td>
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<td>EGY 220 Energy Efficiency Electrical Controls</td>
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**Energy Utility Technician – 1505033029**  
*(Offered at GTW)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>EET 150 Transformers</td>
<td>2</td>
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<tr>
<td>EET 151 Transformers Lab</td>
<td>1</td>
</tr>
<tr>
<td>ELT 110 Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ISX 101 Introduction to Industrial Safety</td>
<td>3</td>
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<tr>
<td>EGY 170 Energy Utility Technologies</td>
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**Outside Plant Technician – 1505033039**  
*(Offered at GTW)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ELT 110 Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ETT 110 Voice and Data Installer Level I</td>
<td>4</td>
</tr>
<tr>
<td>ISX 101 Introduction to Industrial Safety</td>
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<tr>
<td>EGY 120 Outside Plant Communications</td>
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<td><strong>Total</strong></td>
<td><strong>16-19</strong></td>
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</table>

**Solar/Photovoltaic Technologies – 1505033069**  
*(Offered at ASC, BSC, BLC, GTW)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>EET 154 Electrical Construction I</td>
<td>2</td>
</tr>
<tr>
<td>EET 155 Electrical Construction I Lab</td>
<td>2</td>
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<tr>
<td>ELT 110 Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>EGY 230 Solar / Photovoltaic Technologies</td>
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<tr>
<td><strong>Total</strong></td>
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**Wind System Technologies – 1505033059**  
*(Offered at BSC, BLC, GTW)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ELT 110 Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>IMT 150 Maintaining Industrial Equipment</td>
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<td>IMT 151 Maintaining Industrial Equipment Lab</td>
<td>2</td>
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<td>EGY 250 Wind / Turbine Technologies</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

## 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, and telephony.

Progress in the Engineering and Electronics Technology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

## Associate in Applied Science

**Engineering and Electronics Technology - 1503997019**  
*(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SKY, SMC)*

### General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>MAT 150 College Algebra OR</td>
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<tr>
<td>MAT 126 Technical Algebra and Trigonometry OR</td>
<td>3</td>
</tr>
<tr>
<td>Higher Level Quantitative Reasoning Course</td>
<td>3</td>
</tr>
<tr>
<td>PHY 171 Applied Physics OR</td>
<td>3</td>
</tr>
<tr>
<td>Other Natural Sciences with Consent of Program Coordinator</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3</td>
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<tr>
<td>Heritage/Humanities</td>
<td>3</td>
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<tr>
<td><strong>Subtotal:</strong></td>
<td><strong>18-19</strong></td>
</tr>
</tbody>
</table>

### Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ELT 110 Circuits I OR</td>
<td>5</td>
</tr>
<tr>
<td>IMT 111 Industrial Maintenance Electrical Principles AND</td>
<td>3</td>
</tr>
<tr>
<td>IMT 111 Industrial Maintenance Electrical Principles Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELT 114 Circuits II</td>
<td>5</td>
</tr>
<tr>
<td>ELT 210 Digital I</td>
<td>4</td>
</tr>
<tr>
<td>CAD 100 Introduction to Computer Aided Design OR</td>
<td>3</td>
</tr>
<tr>
<td>BRX 120 Basic Blueprint Reading OR</td>
<td>3</td>
</tr>
<tr>
<td>Equivalent Course with Consent of Program Coordinator</td>
<td>3</td>
</tr>
<tr>
<td>ELT 289 Engineering and Electronics Technology Capstone Course</td>
<td>3</td>
</tr>
<tr>
<td>Digital Literacy</td>
<td>3</td>
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<tr>
<td><strong>NOTE:</strong> If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.</td>
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<tr>
<td><strong>Subtotal:</strong></td>
<td><strong>24-25</strong></td>
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### Apprenticeship Track – 150399701

*(Offered at JFC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>APS 201 Apprenticeship Studies</td>
<td>24</td>
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<td><strong>Total:</strong></td>
<td><strong>66-68</strong></td>
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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.*

### Communications Track – 150399708

*(Offered at BLC, ELC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ELT 214 Devices II</td>
<td>4</td>
</tr>
<tr>
<td>ELT 220 Digital II</td>
<td>3</td>
</tr>
<tr>
<td>ELT 240 Communications Electronics</td>
<td>6</td>
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<tr>
<td>Technical Electives *</td>
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<td><strong>Subtotal:</strong></td>
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<tr>
<td><strong>Total:</strong></td>
<td><strong>62-64</strong></td>
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</table>

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.*
Computer Aided Design Track – 150399702
(Offered at HPC, JFC)

CAD 200 Intermediate Computer Aided Drafting .......................... 4
CAD 201 Advanced 3D Modeling ................................................ 4
Technical Electives * ................................................................... 12
Subtotal: .................................................................................. 20

Total 62-64

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

Computer Maintenance Track – 150399703
(Offered at BLC, ELC, JFC, SMC)

ELT 234 Computer Hardware Maintenance AND ....................... 3
ELT 232 Computer Software Maintenance OR ................................ 3
CIT 111 Computer Hardware and Software ................................. (4)
ELT 220 Digital II ...................................................................... 3
CIT 160 Introduction to Networking Concepts OR ...................... 4
CIT 161 Introduction to Networks ................................................. (4)

Technical Electives * ................................................................... 7
Subtotal: .................................................................................. 18-20

Total 60-64

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

Electronics Track – 150399707
(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SMC)

EET 214 Devices II ....................................................................... 4
EET 220 Digital II ....................................................................... 3

Technical Electives * ................................................................... 13
Subtotal: .................................................................................. 20

Total 62-64

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

Industrial Track – 150399704
(Offered at HPC, JFC, SMC)

ELT 214 Devices II ....................................................................... 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)
EET 250 Programmable Logic Controllers OR ...................... 4
EET 276 Programmable Logic Controllers AND ...................... (2)
EET 277 Programmable Logic Controllers Lab ....................... (2)

Technical Electives * ................................................................... 5
Subtotal: .................................................................................. 20

Total 62-64

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

Instrumentation Track – 150399709
(Offered at BSC, 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, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

Mechanical Track – 150399706
(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 OR ............................................ 3
FPX 100 Fluid Power AND ..................................................... (3)
FPX 101 Fluid Power Lab ......................................................... (2)
CAD 200 Intermediate Computer Aided Drafting ...................... 4

Technical Electives * ................................................................... 8
Subtotal: .................................................................................. 19-22

Total 61-66

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

Robotics and Automation Track – 150399705
(Offered at BLC, BSC, ELC, HPC, JFC, SKY)

ELT 265 Applied Fluid Power OR ............................................ 3
FPX 100 Fluid Power AND ..................................................... (3)
FPX 101 Fluid Power Lab ......................................................... (2)
ELT 250 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)
EET 250 Programmable Logic Controllers OR ...................... 4
EET 276 Programmable Logic Controllers AND ...................... (2)
EET 277 Programmable Logic Controllers Lab ....................... (2)

Technical Electives * ................................................................... 4
Subtotal: .................................................................................. 20-22

Total 62-66

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

Diplomas

Apprenticeship- 1503994059
(Offered at)

General Education:
Area 1: Written Communication or Oral Communications .......... 3
Area 2: College Algebra OR ..................................................... 3
Technical Algebra and Trigonometry OR ............................... (3)
Higher Level Quantitative Reasoning Course ......................... (3)

Subtotal: .................................................................................. 6

Core:
ELT 110 Circuits I OR ............................................................... 5
IMT 110 Industrial Maintenance Electrical Principles AND .......... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab .......... (2)
ELT 114 Circuits II ................................................................. 5
ELT 210 Devices I ................................................................. 4
ELT 120 Digital I ................................................................. 3
CAD 100 Introduction to Computer Aided Design OR ............ 3
BRX 120 Basic Blueprint Reading OR ..................................... (3)

Equivalent Course with Consent of Program Coordinator(3-4)
ELT 289 Engineering and Electronics Technology Capstone Course 1

Digital Literacy ................................................................. 3

NOTE: If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.

COED 198 Cooperate Education OR ........................................ (1-2)

Equivalent Course with Consent of Program Coordinator(1-2)

Subtotal: .................................................................................. 25-27
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>APS 201</td>
<td>Apprenticeship Studies</td>
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*Technical Electives: Any EET, ELT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

**Communications – 1503994029**  
*(Offered at BLC, ELC, JFC, OWC, SEC, SMC)*

**General Education:**

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<thead>
<tr>
<th>Area 1: Written Communication or Oral Communications</th>
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<td><strong>AND</strong></td>
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**Area 2:**

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</thead>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
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</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR</td>
<td><strong>(3)</strong></td>
</tr>
<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
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</tr>
<tr>
<td></td>
<td><strong>Subtotal:</strong></td>
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**Core:**

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ELT 110</td>
<td>Engineering and Electronics Technology Capstone Course</td>
<td><strong>3</strong></td>
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<tr>
<td>ELT 289</td>
<td>Engineering and Electronics Technology Capstone Course</td>
<td><strong>3</strong></td>
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<td></td>
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**Digital Literacy:**

<table>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COED 198</td>
<td>Practicum OR</td>
<td><strong>1-2</strong></td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education OR</td>
<td><strong>1-2</strong></td>
</tr>
<tr>
<td></td>
<td>Equivalent Course with Consent of Program Coordinator</td>
<td><strong>(1-2)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal:</strong></td>
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**Total:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 234</td>
<td>Computer Hardware Maintenance AND</td>
<td><strong>3</strong></td>
</tr>
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<td>ELT 232</td>
<td>Computer Software Maintenance OR</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software</td>
<td><strong>(4)</strong></td>
</tr>
<tr>
<td>ELT 220</td>
<td>Digital II</td>
<td><strong>3</strong></td>
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<tr>
<td>CIT 160</td>
<td>Introduction to Networking Concepts OR</td>
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<td>CIT 161</td>
<td>Introduction to Networks</td>
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</table>

**Computer Maintenance – 1503994049**  
*(Offered at BLC, ELC, JFC, OWC, SEC, SMC)*

**General Education:**

<table>
<thead>
<tr>
<th>Area 1: Written Communication or Oral Communications</th>
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**Area 2:**

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
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<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR</td>
<td><strong>(3)</strong></td>
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<tr>
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<td>Higher Level Quantitative Reasoning Course</td>
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**Core:**

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<th>Credits</th>
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<tbody>
<tr>
<td>ELT 110</td>
<td>Circuits I OR</td>
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<tr>
<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND (3)</td>
<td><strong>(3)</strong></td>
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<tr>
<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles Lab</td>
<td><strong>(2)</strong></td>
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<tr>
<td>ELT 114</td>
<td>Circuits II</td>
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<td>ELT 210</td>
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**Total:**

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<td>Engineering and Electronics Technology Capstone Course</td>
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*Technical Electives: Any EET, ELT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

**Computer Maintenance – 1503994049**  
*(Offered at BLC, ELC, JFC, OWC, SEC, SMC)*

**General Education:**

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**Area 2:**

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<tbody>
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</tr>
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<td>Technical Algebra and Trigonometry OR</td>
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<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
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**Core:**

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<tr>
<td>ELT 110</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 114</td>
<td>Circuits II</td>
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<td>ELT 210</td>
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<td>ELT 240</td>
<td>Communications Electronics</td>
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**Digital Telephony - 1503994109**

**General Education:**

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**Area 2:**

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<tr>
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<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR</td>
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**Core:**

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<tbody>
<tr>
<td>ELT 110</td>
<td>Circuits I OR</td>
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<tr>
<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
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<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles Lab</td>
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<td>ELT 224</td>
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<td>ELT 226</td>
<td>Safety in the Workplace OR</td>
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<td>ISX 100</td>
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<tr>
<td>ELT 222</td>
<td>Mechanics of Telephony</td>
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<td>ELT 224</td>
<td>Basic Telecoms Installation and Maintenance</td>
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</tr>
<tr>
<td>ELT 226</td>
<td>Safety in the Workplace OR</td>
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<tr>
<td>ISX 100</td>
<td>Industrial Safety OR</td>
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**Total:**

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<tbody>
<tr>
<td>ELT 289</td>
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<tr>
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*Technical Electives: Any EET, ELT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.
Electronics – 1503994019
(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SEC, SMC)

General Education:
Area 1: Written Communication or Oral Communications ………… 3
AND
Area 2:
MAT 150 College Algebra OR ………………………………………… 3
MAT 126 Technical Algebra and Trigonometry OR ………… (3)
Higher Level Quantitative Reasoning Course ……… (3)
Subtotal: 6

Core:
ELT 110 Circuits I OR ………………………………………………… 5
IMT 111 Industrial Maintenance Electrical Principles Lab ……… (2)
ELT 114 Circuits II ……………………………………………………… 5
ELT 210 Devices I ……………………………………………………… 4
ELT 120 Digital I ……………………………………………………… 3
CAD 100 Introduction to Computer Aided Design OR ………… 3
BRX 120 Basic Blueprint Reading OR ……………………………… (3)
Equivalent Course with Consent of Program Coordinator (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course ……… 1
Digital Literacy ……………………………………………………… 3
NOTE: If a student takes CAD 100 to meet
Digital Literacy requirements, he/she MUST take an
additional three (3) credit hours of elective credit
not used in the selected track……………………………………….. (3)
COED 198 Practicum OR …………………………………………… 1-2
COE 199 Cooperative Education OR ……………………………… (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27
ELT 214 Devices II ……………………………………………………… 4
ELT 220 Digital II ……………………………………………………… 3
Technical Electives * ………………………………………………… 13
Subtotal: 20
Total: 51-53

*Technical Electives: Any EET, ELT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any
other course as approved by the program coordinator.

Industrial Electronics – 1503994079
(Offered at BLC, HPC, JFC, OWC, SEC)

General Education:
Area 1: Written Communication or Oral Communications ………… 3
AND
Area 2:
MAT 150 College Algebra OR ………………………………………… 3
MAT 126 Technical Algebra and Trigonometry OR ………… (3)
Higher Level Quantitative Reasoning Course ……… (3)
Subtotal: 6

Core:
ELT 110 Circuits I OR ………………………………………………… 5
IMT 111 Industrial Maintenance Electrical Principles Lab ……… (2)
IMT 110 circles II ……………………………………………………… 5
ELT 210 Devices I ……………………………………………………… 4
ELT 120 Digital I ……………………………………………………… 3
CAD 100 Introduction to Computer Aided Design OR ………… 3
BRX 120 Basic Blueprint Reading OR ……………………………… (3)
Equivalent Course with Consent of Program Coordinator (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course ……… 1
Digital Literacy ……………………………………………………… 3
NOTE: If a student takes CAD 100 to meet
Digital Literacy requirements, he/she MUST take an
additional three (3) credit hours of elective credit
not used in the selected track……………………………………….. (3)
COED 198 Practicum OR …………………………………………… 1-2
COE 199 Cooperative Education OR ……………………………… (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27
ELT 214 Devices II ……………………………………………………… 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: 55-57

*Technical Electives: Any EET, ELT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any
other course as approved by the program coordinator.

Engineering Design Technician – 1503994089
(Offered at JFC)

General Education:
Area 1: Written Communication or Oral Communications ………… 3
AND
Area 2:
MAT 150 College Algebra OR ………………………………………… 3
MAT 126 Technical Algebra and Trigonometry OR ………… (3)
Higher Level Quantitative Reasoning Course ……… (3)
Subtotal: 6

Core:
ELT 110 Circuits I OR ………………………………………………… 5
IMT 111 Industrial Maintenance Electrical Principles Lab ……… (2)
ELT 114 Circuits II ……………………………………………………… 5
ELT 210 Devices I ……………………………………………………… 4
ELT 120 Digital I ……………………………………………………… 3
CAD 100 Introduction to Computer Aided Design OR ………… 3
BRX 120 Basic Blueprint Reading OR ……………………………… (3)
Equivalent Course with Consent of Program Coordinator (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course ……… 1
Digital Literacy ……………………………………………………… 3
NOTE: If a student takes CAD 100 to meet
Digital Literacy requirements, he/she MUST take an
additional three (3) credit hours of elective credit
not used in the selected track……………………………………….. (3)
COED 198 Practicum OR …………………………………………… 1-2
COE 199 Cooperative Education OR ……………………………… (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27

Subtotal: 6
Instrumentation – 1503994099
(Offered at ELC)

General Education:
Area 1: Written Communication or Oral Communications………..3
AND
Area 2:
MAT 150 College Algebra OR……………………………….(3)
MAT 126 Technical Algebra and Trigonometry OR………..(3)
Higher Level Quantitative Reasoning Course………………(3)
Subtotal: 6

Core:
ELT 110 Circuits I…………………………………………………5
IMT 110 Industrial Maintenance Electrical Principles AND………(3)
IMT 111 Industrial Maintenance Electrical Principles Lab………..(2)
ELT 114 Circuits II…………………………………………………5
ELT 210 Devices I……………………………………………………4
ELT 120 Digital I……………………………………………………3
CAD 100 Introduction to Computer Aided Design OR………..3
BRX 120 Basic Blueprint Reading OR…………………………..(3)
Equivalent Course with Consent of Program Coordinator(3-4)
ELT 289 Engineering and Electronics Technology Capstone Course….1
Digital Literacy ……………………………………………………..3
NOTE: If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track…………………………..(3)
COED 198 Practicum OR……………………………………………..1-2
COE 199 Cooperative Education OR……………………………..(1-2)
Equivalent Course with Consent of Program Coordinator(1-2)
Subtotal: 25-27

ELT 220 Digital II……………………………………………………3
ISM 102 Fundamentals of Instrumentation……………………..4
ISM 210 Fundamentals of Process Control…………………….4
Technical Electives *………………………………………………9
Subtotal: 20
Total 51-53

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

Mechanical – 1503994069
(Offered at JFC, OWC)

General Education:
Area 1: Written Communication or Oral Communications………..3
AND
Area 2:
MAT 150 College Algebra OR…………………………………..3
MAT 126 Technical Algebra and Trigonometry OR………………(3)
Higher Level Quantitative Reasoning Course…………………..(3)
Subtotal: 6

Core:
ELT 110 Circuits I OR…………………………………………………5
IMT 110 Industrial Maintenance Electrical Principles AND………(3)
IMT 111 Industrial Maintenance Electrical Principles Lab………..(2)
ELT 114 Circuits II……………………………………………………5
ELT 210 Devices I……………………………………………………4
ELT 120 Digital I……………………………………………………3
CAD 100 Introduction to Computer Aided Design OR………..3
BRX 120 Basic Blueprint Reading OR……………………………..(3)
Equivalent Course with Consent of Program Coordinator(3-4)
ELT 289 Engineering and Electronics Technology Capstone Course….1
Digital Literacy ……………………………………………………..3
NOTE: If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track…………………………..(3)
COED 198 Practicum OR……………………………………………..1-2
COE 199 Cooperative Education OR……………………………..(1-2)
Equivalent Course with Consent of Program Coordinator(1-2)
Subtotal: 25-27

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
EET 250 Programmable Logic Controllers OR………………….4
EET 276 Programmable Logic Controllers AND…………………..(2)
EET 277 Programmable Logic Controllers Lab…………………..(2)
Technical Electives *……………………………………………….5
Subtotal: 21
Total 52-54

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

Robotics and Automation – 1503994039
(Offered at BLC, BSC, HPC, JFC, 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 OR………………(3)
Higher Level Quantitative Reasoning Course…………………..(3)
Subtotal: 6

Core:
ELT 110 Circuits I OR…………………………………………………5
IMT 110 Industrial Maintenance Electrical Principles AND………(3)
IMT 111 Industrial Maintenance Electrical Principles Lab………..(2)
ELT 114 Circuits II……………………………………………………5
ELT 210 Devices I……………………………………………………4
ELT 120 Digital I……………………………………………………3
CAD 100 Introduction to Computer Aided Design OR………..3
BRX 120 Basic Blueprint Reading OR……………………………..(3)
Equivalent Course with Consent of Program Coordinator(3-4)
ELT 289 Engineering and Electronics Technology Capstone Course….1
Digital Literacy ……………………………………………………..3
NOTE: If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track…………………………..(3)
COED 198 Practicum OR……………………………………………..1-2
COE 199 Cooperative Education OR……………………………..(1-2)
Equivalent Course with Consent of Program Coordinator(1-2)
Subtotal: 25-27

Total 53-56

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 53-56

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.
Certificates

Automation Technician – 1503993229
(Offered at BLC, BSC, HEC, HPC, JFC, OWC, SEC, SKY)

ELT 110 Circuits I OR .................................................. 5
IMT 110 Industrial Maintenance Electrical Principles AND .... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab .... (2)
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 ................. (3)
EET 277 Programmable Logic Controllers Lab ...................(2)
ELT 265 Applied Fluid Power ........................................ 3

Total 16

CAD Technician – 1503993239
(Offered at HPC, JFC, OWC, SEC, SKY)

CAD 100 Introduction to CAD ........................................ 3
CAD 200 Intermediate Computer Aided Drafting ................. 4

Total Credits 7

Communications Technician – 1503993039
(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SEC, SMG)

ELT 110 Circuits I OR .................................................. 5
IMT 110 Industrial Maintenance Electrical Principles AND .... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab .... (2)
ELT 120 Digital I ......................................................... 3
ELT 121 Digital II ....................................................... 5
ELT 210 Devices I ....................................................... 4
ELT 214 Devices II ...................................................... 4
ELT 120 Digital I ....................................................... 3
ELT 240 Communications Electronics ............................. 6

Total 27

Computer Maintenance Technician – 1503993029
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SMG)

ELT 110 Circuits I OR .................................................. 5
IMT 110 Industrial Maintenance Electrical Principles AND .... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab .... (2)
ELT 120 Digital I ......................................................... 3
Digital Literacy ......................................................... 3
CIT 111 Computer Hardware and Software OR ................... 4
EET 234 Electrical Maintenance AND ............................ (3)
EET 232 Computer Software Maintenance ........................ (3)

Total 15-17

Digital Telephony Technician – 1503993119
(Offered at BSC, JFC, OWC, SEC)

ELT 222 Mechanics of Telephony ................................... 3
ELT 224 Basic Telecoms Installation and Maintenance .......... 3
ELT 225 Safety in the Workplace OR ............................. 2
ISX 100 Industrial Safety .............................................. (3)
ELT 110 Circuits I ....................................................... 5
ELT 120 Digital I ....................................................... 3
Digital Literacy ......................................................... 3

Total 19-20

Electronics Technician – 1503993069
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY, SMG)

ELT 110 Circuits I OR .................................................. 5
IMT 110 Industrial Maintenance Electrical Principles AND .... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab .... (2)
ELT 114 Circuits II ..................................................... 5
ELT 210 Devices I ....................................................... 4
ELT 214 Devices II ..................................................... 4
ELT 120 Digital I ....................................................... 3
ELT 220 Digital II ..................................................... 3

Total 24

Electronics Tester – 1503993089
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SMG)

ELT 110 Circuits I OR .................................................. 5
IMT 110 Industrial Maintenance Electrical Principles AND .... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab .... (2)
ELT 114 Circuits II ..................................................... 5
ELT 120 Digital I ....................................................... 3
ELT 250 Programmable Logic Controllers OR .................. 4
EET 276 Programmable Logic Controllers AND ................. (2)
EET 277 Programmable Logic Controllers Lab ...................(2)

Total 13

Industrial Electronics Technician I – 1503993129
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SMG)

ELT 110 Circuits I OR .................................................. 5
IMT 110 Industrial Maintenance Electrical Principles AND .... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab .... (2)
ELT 114 Circuits II ..................................................... 5
ELT 210 Devices I ....................................................... 4
ELT 214 Devices II ..................................................... 4
ELT 120 Digital I ....................................................... 3
ELT 220 Digital II ..................................................... 3
ELT 244 Electrical Machinery and Controls OR ................. 4
EET 270 Electrical Motor Controls I AND ........................ (2)
EET 271 Electrical Motor Controls I Lab ............................ (2)
EET 250 Programmable Logic Controllers OR .................. 4
EET 276 Programmable Logic Controllers AND ................. (2)
EET 277 Programmable Logic Controllers Lab ...................(2)

Total 17

Industrial Electronics Technician II – 1503993139
(Offered at BLC, BSC, HPC, JFC, OWC, SEC, SMG)

ELT 110 Circuits I OR .................................................. 5
IMT 110 Industrial Maintenance Electrical Principles AND .... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab .... (2)
ELT 244 Electrical Machinery and Controls OR ................. 4
EET 270 Electrical Motor Controls I AND ........................ (2)
EET 271 Electrical Motor Controls I Lab ............................ (2)
EET 250 Programmable Logic Controllers OR .................. 4
EET 276 Programmable Logic Controllers AND ................. (2)
EET 277 Programmable Logic Controllers Lab ...................(2)

Total 32

Instrumentation Technician – 1503993249
(Offered at ELC, JFC, OWC, SEC)

ELT 110 Circuits I OR .................................................. 5
EET 119 Basic Electricity OR ....................................... (5)
IMT 110 IMT Electrical Principles AND ............................ (3)
IMT 111 IMT Electrical Principles Lab ............................ (2)
ISM 102 Fundamentals of Instrumentation ....................... 4
ISM 210 Fundamentals of Process Control ....................... 4

Total 13

Maintenance Technician – 1503993059
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SMG)

CAD 100 Introduction to Computer Aided Design OR .......... 3
BRX 120 Basic Blueprint Reading OR ............................. (3)
ELT 110 Circuits I OR .................................................. 5
IMT 110 Industrial Maintenance Electrical Principles AND .... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab .... (2)
ELT 114 Circuits II ..................................................... 5
ELT 265 Applied Fluid Power ....................................... 3
EET 244 Electrical Machinery and Controls OR ................. 4
EET 270 Electrical Motor Controls I AND ........................ (2)
EET 271 Electrical Motor Controls I Lab ............................ (2)
EET 250 Programmable Logic Controllers OR .................. 4
EET 276 Programmable Logic Controllers AND ................. (2)
EET 277 Programmable Logic Controllers Lab ...................(2)

Total 24-25
In order to be admitted to the Environmental Science Technology (EST) Program, each student must be admitted to Bluegrass Community and Technical College.

Admissions Requirements

The following information has been taken from the Rules of the Senate and is subject to change without notice. All applicants meeting the appropriate academic requirements shall be considered equally for admission to Bluegrass Community and Technical College or to any academic program thereof regardless of economic or social status, and without discrimination on the basis of race, color, religion, sex, marital status, beliefs, age, national origin, sexual orientation, or physical or mental disability.

Environmental Science Technology

This program includes specialized environmental science courses in addition to general education coursework to provide individuals the background necessary for understanding the ecological relationships of the environment. Coursework also emphasizes the application of scientific principles to pollution control problems in accordance with state and federal regulations. Practical lab and field experience in sampling and analysis will be stressed. Emphasis is placed on developing the students’ ability to function effectively in a variety of job situations.

Graduates of this program will be prepared to sample and analyze air, water, and soil in accordance with state and federal regulations. Environmental technicians may be responsible for such job duties as air pollution surveillance, analysis of water and wastewater samples, ground water and surface water assessment, field sampling, data interpretation, and other support services to engineering and science professionals.

Graduates in this field may be employed as technicians by federal, state and local governmental units as well as utilities, private industry, and environmental engineering consulting firms.

Admissions Requirements

The following information has been taken from the Rules of the Senate and is subject to change without notice. All applicants meeting the appropriate academic requirements shall be considered equally for admission to Bluegrass Community and Technical College or to any academic program thereof regardless of economic or social status, and without discrimination on the basis of race, color, religion, sex, marital status, beliefs, age, national origin, sexual orientation, or physical or mental disability.

Robotics and Automation Technician – 1503993099

(Offered at BLC, BSC, HEC, HPC, OW, SEC, SKY, SMC)

<table>
<thead>
<tr>
<th>Course</th>
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Technical Electives

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<td>ENG 203</td>
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<tr>
<td>PHY 151</td>
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<td>STA 210</td>
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Courses not on this list may be approved at the coordinator’s discretion.

* Satisfies General Education requirement for A.S degrees

Associate in Applied Science

Environmental Science Technology - 1505077019

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101</td>
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<td>ENG 102</td>
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<td>MAT 150</td>
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EET 270 Programmable Logic Controllers Lab (2)

Total 17-19

EEL 250 Programmable Logic Controllers OR

Total 17-19

EET 276 Programmable Logic Controllers AND (2)

Total 17-19

CAD 200 Intermediate Computer Aided Drafting (4)

Total 17-19

EET 277 Programmable Logic Controllers Lab (2)

Total 29

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.
Environmental Technology

The environmental technology program has been developed in concert with various regulatory agencies, state universities and businesses and industries. Environmental Technicians conducts tests and field investigations to obtain data for use by environmental, engineering, and scientific personnel in determining sources and methods of controlling pollutants in air, water and soil, by utilizing knowledge of agriculture, chemistry, meteorology, engineering principles and applied technologies.

Certificates

Hazardous Materials Technician - 1505073019

(Offered at BLC)

- CPU 100 Introduction to Computers ............................................. 3
- ENV 100 Environmental Mathematics ........................................ 3
- ENV 110 Introduction to Environmental Technology ..................... 4
- ENV 111 Environmental Sampling Techniques Lab ....................... 2
- ENV 120 Environmental Chemistry ........................................... 3
- ENV 121 Environmental Chemistry Lab .................................... 1
- ENV 140 Geology, Hydrology and Soils ..................................... 4
- ENV 141 Geology, Hydrology and Soils Lab ................................ 2
- ENV 260 Hazardous Materials .................................................. 6
- ENV 261 Hazardous Materials Lab ............................................ 3
- ENV 270 Treatment and Disposal Technologies .......................... 3
- TEC 200 Technical Communications ......................................... 3

Electives:

- ENV 293 Special Problems I .....................................................(1)
- ENV 295 Special Problems II ....................................................(2)
- ENV 297 Special Problems III ...................................................(3)

Total Credits 37

Waste Processing Attendant – 1505073029

(Offered at BLC)

- ENV 110 Introduction to Environmental Technology ..................... 4
- ENV 111 Environmental Sampling Techniques Lab ....................... 2
- ENV 140 Geology, Hydrology and Soils ..................................... 4
- ENV 141 Geology, Hydrology and Soils Lab ................................ 2
- ENV 260 Hazardous Materials .................................................. 6
- ENV 261 Hazardous Materials Lab ............................................ 3

Electives:

- ENV 293 Special Problems I .....................................................(1)
- ENV 295 Special Problems II ....................................................(2)
- ENV 297 Special Problems III ...................................................(3)

Total Credits 21

Wastewater Treatment Plant Attendant – 1505073039

(Offered at BLC)

- ENV 110 Introduction to Environmental Technology ..................... 4
- ENV 111 Environmental Sampling Techniques Lab ....................... 2
- ENV 140 Geology, Hydrology and Soils ..................................... 4
- ENV 141 Geology, Hydrology and Soils Lab ................................ 2
- ENV 290 Wastewater Treatment Technology ............................ 6
- ENV 291 Wastewater Treatment Technology Lab ......................... 2

Electives:

- ENV 293 Special Problems I .....................................................(1)
- ENV 295 Special Problems II ....................................................(2)
- ENV 297 Special Problems III ...................................................(3)

Total Credits 20

Wastewater Treatment Plant Operator - 1505073049

- CPU 100 Introduction to Computers ............................................. 3
- ENV 100 Environmental Mathematics ........................................ 3
- ENV 110 Introduction to Environmental Technology ..................... 4
- ENV 111 Environmental Sampling Techniques Lab ....................... 2
- ENV 120 Environmental Chemistry ........................................... 3
- ENV 121 Environmental Chemistry Lab .................................... 1
- ENV 140 Geology, Hydrology and Soils ..................................... 4
- ENV 141 Geology, Hydrology and Soils Lab ................................ 2
- ENV 270 Treatment and Disposal Technologies .......................... 3
- ENV 290 Wastewater Treatment Technology ............................ 6
- ENV 291 Wastewater Treatment Technology Lab ......................... 2
- TEC 200 Technical Communications ......................................... 3

Electives:

- ENV 293 Special Problems I .....................................................(1)
- ENV 295 Special Problems II ....................................................(2)
- ENV 297 Special Problems III ...................................................(3)

Total Credits 36

Water Treatment Plant Attendant – 1505073059

(Offered at BLC)

- ENV 110 Introduction to Environmental Technology ..................... 4
- ENV 111 Environmental Sampling Techniques Lab ....................... 2
- ENV 140 Geology, Hydrology and Soils ..................................... 4
- ENV 141 Geology, Hydrology and Soils Lab ................................ 2
- ENV 280 Water Treatment Technology ................................. 6
- ENV 281 Water Treatment Technology Lab ............................... 2

Electives:

- ENV 293 Special Problems I .....................................................(1)
- ENV 295 Special Problems II ....................................................(2)
- ENV 297 Special Problems III ...................................................(3)

Total Credits 36

Water Treatment Plant Operator - 1505073069

- CPU 100 Introduction to Computers ............................................. 3
- ENV 100 Environmental Mathematics ........................................ 3
- ENV 110 Introduction to Environmental Technology ..................... 4
- ENV 111 Environmental Sampling Techniques Lab ....................... 2
- ENV 120 Environmental Chemistry ........................................... 3
- ENV 121 Environmental Chemistry Lab .................................... 1
- ENV 140 Geology, Hydrology and Soils ..................................... 4
- ENV 141 Geology, Hydrology and Soils Lab ................................ 2
- ENV 270 Treatment and Disposal Technologies .......................... 3
- ENV 280 Water Treatment Technology ................................. 6
- ENV 281 Water Treatment Technology Lab ............................... 2
- TEC 200 Technical Communications ......................................... 3

Electives:

- ENV 293 Special Problems I .....................................................(1)
- ENV 295 Special Problems II ....................................................(2)
- ENV 297 Special Problems III ...................................................(3)

Total Credits 36

151
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 racetrack 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.

<table>
<thead>
<tr>
<th>Associate in Applied Science</th>
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<tbody>
<tr>
<td><strong>Equine Studies - 0105077019</strong></td>
</tr>
<tr>
<td><strong>General Education:</strong></td>
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<tr>
<td>Quantitative Reasoning</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><strong>Total General Education Requirements</strong></td>
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<tr>
<td><strong>Technical Core:</strong></td>
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<tr>
<td>Computer/Digital Literacy</td>
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<tr>
<td>EQS 101 Introduction to the Thoroughbred</td>
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<tr>
<td>EQS 103 Racehorse Care</td>
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<td>EQS 104 Racehorse Care Lab</td>
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<tr>
<td>EQS 110 Basic Equine Physiology</td>
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<td>EQS 125 Equine Nutrition</td>
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<td>EQS 130 Introduction to the Racing Industry</td>
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<td>EQS 200 Lameness in Racehorses</td>
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<td>EQS 240 Equine Legal and Business Principles</td>
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<tr>
<td>Technical Electives</td>
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<tr>
<th><strong>Horseman Track - 010507702</strong></th>
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<tbody>
<tr>
<td>EQS 101 Equine Bloodstock</td>
<td>3</td>
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<tr>
<td>EQS 121 Introduction to Breaking and Training Racehorses</td>
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<td>EQS 122 Yearling Breaking and Training</td>
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<td>EQS 123 Breaking and Prepping Two Year Olds</td>
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<tr>
<td>EQS 223 Training Principles and Practices</td>
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<td>EQS 225 Life Skills for Horsemen</td>
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<tr>
<td>EQS 111 Introduction To Riding Racehorses</td>
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<td>EQS 112 Racehorse Riding Skills I</td>
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<td>EQS 113 Racehorse Riding Skills II</td>
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<tr>
<td>EQS 212 Racehorse Riding Principles</td>
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**Approved Technical Electives**

Any EQM or EQS course from alternate track. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.

| SPA 101 Elementary Spanish | 4 |
| EQM 120 Introduction to Commercial Breeding Practices | 3 |
| EQS 118 Equine Bloodstock | 3 |
| EQS 299 Equine Cooperative Education (internship) | 1-9 |

**Diplomas**

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<td>Area II</td>
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Technical Core

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<th>Credits</th>
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<tbody>
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<td>Introduction to the Thoroughbred</td>
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</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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<td>EQS 110</td>
<td>Basic Equine Physiology</td>
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<td>Equine Nutrition</td>
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<td>EQS 130</td>
<td>Introduction to the Racing Industry</td>
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<tr>
<td>EQS 200</td>
<td>Lameness in Racehorses</td>
<td>3</td>
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<tr>
<td>EQS 240</td>
<td>Equine Legal and Business Principles</td>
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<tr>
<td>EQS 299</td>
<td>Equine Cooperative Education (1 credit hour min required in diploma. Additional credits may count toward elective credits.)</td>
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Technical Electives

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Total Technical Core 29-32

Horseman Track - 010507402

(Offered at BLC)

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<tr>
<td>EQS 121</td>
<td>Introduction to Breaking and Training Racehorses</td>
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<td>EQS 122</td>
<td>Yearling Breaking and Training</td>
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<tr>
<td>EQS 123</td>
<td>Breaking and Prepping Two Year Olds</td>
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<td>EQS 223</td>
<td>Training Principles and Practices</td>
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<tr>
<td>EQS 225</td>
<td>Life Skills for Horsemen</td>
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Subtotal Horseman Track 17

Total Horseman Track 52-55

Jockey Track - 010507401

(Offered at BLC)

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<th>Course Code</th>
<th>Course Title</th>
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<td>Introduction to Riding Racehorses</td>
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<td>EQS 112</td>
<td>Racehorse Riding Skills I</td>
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<td>EQS 113</td>
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<td>EQS 215</td>
<td>Life Skills for Jockeys</td>
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Subtotal Jockey Track 17

Total Jockey Track Diploma 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>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>SPA 101</td>
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<td>EQM 120</td>
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<td>3</td>
</tr>
<tr>
<td>EQS 299</td>
<td>Equine Cooperative Education (internship)</td>
<td>1-9</td>
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</tbody>
</table>

Total Credits 27

Exercise Science

The Personal Trainer Certificate Program is comprised of American Council on Exercise (ACE) curricula, and will provide real-world experiences, skills, and knowledge needed to assess, design, and implement a personalized exercise program for clients. Graduates are eligible to take the ACE Personal Trainer Exam to become ACE-certified personal trainers.

CPR and Standard First Aid requirements must be obtained and kept current by completing program approved CPR and Standard First Aid courses prior to completing the certificate.

Certificate

Personal Trainer – 5109993029

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</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>
<td>3</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for the Healthcare Professional</td>
<td>1</td>
</tr>
<tr>
<td>SFA 100</td>
<td>Safety and First Aid</td>
<td>1</td>
</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>MSG 100</td>
<td>Musculoskeletal Anatomy and Physiology OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>KHP 150</td>
<td>Personal Health Behavior</td>
<td>3</td>
</tr>
<tr>
<td>KHP 160</td>
<td>Personal Nutrition and Fitness</td>
<td>3</td>
</tr>
<tr>
<td>KHP 225</td>
<td>Exercise Techniques and Physical Training</td>
<td>3</td>
</tr>
<tr>
<td>KHP 235</td>
<td>Personal Trainer Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits 23

Certificate

Equine Industry Workforce - 0105073039

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQS 101</td>
<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 200</td>
<td>Lameness in Racehorses</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 16

Certificate
Financial and Customer Services

This certificate is designed to provide students with the financial, communication, and customer service skills necessary to be successful in the global financial services market. The certificate will require four primary areas of study including two fundamental courses, Spanish and customer service, and two courses in finance and communication, which enable different areas of emphasis.

Certificate

Financial and Customer Services Certificate – 5208033019

(Offered at OWC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA 101</td>
<td>Elementary Spanish</td>
<td>4</td>
</tr>
<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>OST 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>
<td>(3)</td>
</tr>
<tr>
<td>Total Credits</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

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 the index for Fire/Rescue Training.

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 requirements set forth by the National Highway Traffic Safety Administration’s National Emergency Medical Services Standards for the Emergency Medical Technician. Students that successfully complete the course and its requirements will be awarded a certificate for Emergency Medical Technician, and will be eligible to sit for the certification examination as administered by the National Registry of Emergency Medical Technicians.

Associate in Applied Science

Fire/Rescue Science Technology - 4302037019

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

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Heritages/ Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
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</tr>
<tr>
<td>Written Communication</td>
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Technical Courses:

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<thead>
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</thead>
<tbody>
<tr>
<td>Computer/Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>FRS 101 Introduction to Fire Service</td>
<td>3</td>
</tr>
<tr>
<td>FRS 102 Firefighters Basic Skills I</td>
<td>3</td>
</tr>
<tr>
<td>FRS 103 Firefighters Basic Skills II</td>
<td>3</td>
</tr>
<tr>
<td>FRS 104 Firefighters Intermediate Skills I</td>
<td>3</td>
</tr>
<tr>
<td>FRS 105 Firefighters Intermediate Skills II</td>
<td>3</td>
</tr>
<tr>
<td>FRS 201 Firefighters Advanced Skills I</td>
<td>3</td>
</tr>
<tr>
<td>FRS 202 Firefighters Advanced Skills II</td>
<td>3</td>
</tr>
<tr>
<td>FRS 203 Firefighters Advanced Skills III</td>
<td>3</td>
</tr>
<tr>
<td>FRS 204 EMT First Responder</td>
<td>3</td>
</tr>
<tr>
<td>FRS 205 Fire Officer I</td>
<td>5</td>
</tr>
<tr>
<td>FRS 206 Fire Officer II</td>
<td>8</td>
</tr>
<tr>
<td>FRS 207 Fire Officer III</td>
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<td>Subtotal</td>
<td>46-49</td>
</tr>
</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, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Written Communication, Oral Communications, or Humanities/Heritage</td>
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</tr>
<tr>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td>6</td>
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</tbody>
</table>

Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer/Digital Literacy Course OR demonstrated competency</td>
<td>0-3</td>
</tr>
<tr>
<td>FRS 101 Introduction to Fire Service</td>
<td>3</td>
</tr>
<tr>
<td>FRS 102 Firefighters Basic Skills I</td>
<td>3</td>
</tr>
<tr>
<td>FRS 103 Firefighters Basic Skills II</td>
<td>3</td>
</tr>
<tr>
<td>FRS 104 Firefighters Intermediate Skills I</td>
<td>3</td>
</tr>
<tr>
<td>FRS 105 Firefighters Intermediate Skills II</td>
<td>3</td>
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<tr>
<td>FRS 201 Firefighters Advanced Skills I</td>
<td>3</td>
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<tr>
<td>FRS 202 Firefighters Advanced Skills II</td>
<td>3</td>
</tr>
<tr>
<td>FRS 203 Firefighters Advanced Skills III</td>
<td>3</td>
</tr>
<tr>
<td>FRS 204 EMT First Responder</td>
<td>3</td>
</tr>
<tr>
<td>FRS 205 Fire Officer I</td>
<td>5</td>
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<tr>
<td>FRS 206 Fire Officer II</td>
<td>8</td>
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<tr>
<td>FRS 207 Fire Officer III</td>
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<td>Subtotal</td>
<td>46-49</td>
</tr>
</tbody>
</table>

Total Credits 52-55

NOTE: All FRS courses are available in modules; see course description section.
Certificate

Advanced Firefighter - 4302033029

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

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FRS 101</td>
<td>Introduction to Fire Service</td>
<td>3</td>
</tr>
<tr>
<td>FRS 102</td>
<td>Firefighters Basic Skills I</td>
<td>3</td>
</tr>
<tr>
<td>FRS 103</td>
<td>Firefighters Basic Skills II</td>
<td>3</td>
</tr>
<tr>
<td>FRS 104</td>
<td>Firefighters Intermediate Skills I</td>
<td>3</td>
</tr>
<tr>
<td>FRS 105</td>
<td>Firefighters Intermediate Skills II</td>
<td>3</td>
</tr>
<tr>
<td>FRS 201</td>
<td>Firefighters Advanced Skills I</td>
<td>3</td>
</tr>
<tr>
<td>FRS 202</td>
<td>Firefighters Advanced Skills II</td>
<td>3</td>
</tr>
<tr>
<td>FRS 203</td>
<td>Firefighters Advanced Skills III</td>
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</tbody>
</table>

Total Credits 24

NOTE: All FRS courses are available in modules; see course description section.

Basic Firefighter - 4302033019

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

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FRS 101</td>
<td>Introduction to Fire Service</td>
<td>3</td>
</tr>
<tr>
<td>FRS 102</td>
<td>Firefighters Basic Skills I</td>
<td>3</td>
</tr>
<tr>
<td>FRS 103</td>
<td>Firefighters Basic Skills II</td>
<td>3</td>
</tr>
<tr>
<td>FRS 104</td>
<td>Firefighters Intermediate Skills I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 12

NOTE: All FRS courses are available in modules; see course description section.

Emergency Medical Technician - 5109042010

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

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>FRS 2061</td>
<td>Emergency Medical Technician OR</td>
<td>6</td>
</tr>
<tr>
<td>EMS 105</td>
<td>Emergency Medical Technician</td>
<td>6</td>
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</tbody>
</table>

Total Credits 6

NOTE: Contact faculty concerning pre-requisites

Fire Officer - 4302033039

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

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FRS 2051</td>
<td>Fire Prevention, Public Education and Fire Cause Determination II</td>
<td>0.5</td>
</tr>
<tr>
<td>FRS 2052</td>
<td>Firefighter Survival and Rescue</td>
<td>1.1</td>
</tr>
<tr>
<td>FRS 2053</td>
<td>Hazardous Materials Technician</td>
<td>3.4</td>
</tr>
<tr>
<td>FRS 2062</td>
<td>Managing Company Tactical Operations: Decision Making</td>
<td>1.0</td>
</tr>
<tr>
<td>FRS 2063</td>
<td>Instructional Techniques for Company Officers</td>
<td>1.0</td>
</tr>
<tr>
<td>FRS 2071</td>
<td>Company Officer</td>
<td>3.5</td>
</tr>
<tr>
<td>FRS 2072</td>
<td>Incident Command System (ICS)</td>
<td>0.9</td>
</tr>
<tr>
<td>FRS 2073</td>
<td>Leadership I: Strategies for Company Success</td>
<td>0.8</td>
</tr>
<tr>
<td>FRS 2074</td>
<td>Fire/Arson Detection (Arson I)</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Total Credits 13

NOTE: All FRS courses are available in modules; see course description section.

General Occupational/Technical Studies

The Associate in Applied Science degree in General Occupational/Technical Studies provides flexible alternatives for meeting student and employer needs. This program serves two general purposes: 1) Individualized program – provides a flexible curriculum that can be designed to meet specific student and workplace needs, and 2) Degree completion – provides a structure through which credit may be granted for significant prior learning experiences in occupational/technical areas.

Credit earned through certificate and diploma program completion will be applicable toward the Associate in Applied Science in General Occupational/Technical Studies degree when consistent with the objectives of the student’s individual plan of study. This heavily advisor-driven model can combine certificates and/or diplomas in different disciplines for meeting employer needs for unique skill combinations for which there is no established degree program. As much as twenty hours of credit for experiential learning may be applied toward degree completion. KCTCS certificate and diploma credit and acceptable credit transferred from other colleges may also be applied to a student’s program completion plan. At least 25 percent of the approved curriculum credits must be completed at the KCTCS institution granting the degree.

Associate in Applied Science

General Occupational/Technical Studies - 3099997017

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

Available Completely Online

General Education Component Minimum

<p>| | |</p>
<table>
<thead>
<tr>
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</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>
<td>3</td>
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<tr>
<td>Additional General Education Coursework</td>
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</table>

Subtotal 15-20

Technical Component Minimum

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Computer/Digital Literacy</td>
<td>45-50</td>
</tr>
<tr>
<td>Technical Courses</td>
<td>45-50</td>
</tr>
</tbody>
</table>

Subtotal 45-53

Total Credits 60-68

NOTE:

1 If computer/digital literacy is demonstrated by a competency exam, an additional three credit hour course is required.

2 The student must have a plan of study on file in the academic affairs office.

A combination of general education and technical courses should not exceed 68 credits.
Geospatial Technology

The rapidly growing field of Geospatial Technologies (GST) enables users of spatial data the ability to make informed decisions. GST utilizes both time and place as analysis factors. GST is recognized by the U.S. Department of Labor as a high growth, high wage, green industry with a bright outlook. Completers of the certificate will have the skills for employment in GST or associated fields such as Unmanned Aircraft System, agriculture, remote sensing, geospatial intelligence, environmental science, crime analysis, and/or demographics.

Certificate

Applications of Geospatial Technology - 4507023029

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT</td>
<td>Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>CIT</td>
<td>GIS Software Tools</td>
<td>3</td>
</tr>
<tr>
<td>GIS</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GIS</td>
<td>Geospatial Programming</td>
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</tr>
<tr>
<td>GIS</td>
<td>Geospatial Web Mapping</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Global Studies

The Associate of Applied Science Degree in Global Studies (Transfer) is designed to prepare students to be more globally aware and globally literate employees and citizens of the Commonwealth of Kentucky, the United States, and the world. It exposes students to a diverse set of courses and competencies which will prepare them to live and work in settings with diverse ethnic and cultural populations and to function more effectively as members of an increasingly interconnected world.

Certificate

Global Studies - 3020013010

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM</td>
<td>Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Global Studies Heritage</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Global Studies Humanities/Fine Arts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Global Studies Natural Science/Business</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Global Studies Social Interaction</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

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.

Graphic Design and Library Technology

The Graphic Design and Library Technology program prepares students for careers in various industries utilizing cutting-edge technology within graphic design, video game design, and library professions. Students can choose from AAS degrees in three tracks and certificates in four areas.

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 courses within the Graphic Design track will assist with preparation for Adobe Certifications. A two-year AAS degree is available in Graphic Design, and a 15-hour certificate is also offered.

The Library Information Technology (LIT) track prepares graduates for paraprofessional library work, and the courses in this track may be used to meet Kentucky public library certification requirements. A two-year AAS degree is offered in LIT, and a 15-hour certificate is also available. This certificate 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, and describe the role of libraries as agencies for information services.

The Video Game Design track prepares students to design, develop, and market digital games and simulations. This track focuses on artistic and multimedia game design and development. A two-year AAS degree is available in Video Game Design, and a 15-hour certificate is also offered. A 12-hour Digital Video certificate is also available, and provides skills in digital video editing and visual effects.

All Library Information Technology, Graphic Design, Video Game Design, and Digital Video courses are available as web-based distance learning courses. Students can complete the degree or certificate 100% online.

Certificate

Graphic Design and Library Technology - 1108017019

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG</td>
<td>Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>ENG</td>
<td>Writing II*</td>
<td>3</td>
</tr>
<tr>
<td>MAT</td>
<td>College Algebra*</td>
<td>3</td>
</tr>
<tr>
<td>MAT</td>
<td>Contemporary College Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>MAT</td>
<td>Computer/Digital Literacy</td>
<td>3</td>
</tr>
<tr>
<td>COM</td>
<td>Introduction to Intercultural Communication*</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
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<td>62-64</td>
</tr>
</tbody>
</table>

1 General Education
2 Select from Global Studies Humanities/Fine Arts list.
3 Select from Global Studies Heritage list.
4 Select from Global Studies Natural Science list.
5 Select from Global Studies Social Interaction list.

Associate in Applied Science

Graphic Design and Library Technology - 1108017019

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>EN 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MAT 154</td>
<td>One Study Abroad/Overseas Experience course</td>
<td>3</td>
</tr>
<tr>
<td>MAT</td>
<td>Global Studies Heritage</td>
<td>3</td>
</tr>
<tr>
<td>MAT</td>
<td>Global Studies Humanities/Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>MAT</td>
<td>Global Studies Natural Science/Business</td>
<td>3</td>
</tr>
<tr>
<td>MAT</td>
<td>Global Studies Social Interaction</td>
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<tr>
<td>GBS</td>
<td>Global Studies Capstone Course</td>
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<tr>
<td>Total</td>
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<td>18</td>
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</tbody>
</table>

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.
Core Content:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD 100</td>
<td>Digital Information and Communications Technologies</td>
<td>3</td>
</tr>
<tr>
<td>IMD 133</td>
<td>Beginning Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 126</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 270</td>
<td>Professional Practices</td>
<td>3</td>
</tr>
<tr>
<td>IMD 275</td>
<td>Information &amp; Communications</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Coop Education OR</td>
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<tr>
<td>IMD 271</td>
<td>Internship</td>
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Subtotal 21

Subtotal (General Education & Core Content) 39

* Satisfies General Education requirement for the AAS degree

**Graphic Design Track – 110801702**

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IMD 127</td>
<td>Vector Design with Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 180</td>
<td>Intermediate Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 226</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
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<tr>
<td>IMD 280</td>
<td>Portfolio Practicum: Graphic Design</td>
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<tr>
<td>IMD 277</td>
<td>Typography</td>
<td>3</td>
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<tr>
<td>IMD 228</td>
<td>Advanced Photoshop OR</td>
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<tr>
<td>IMD 229</td>
<td>Advanced Illustrator (3)</td>
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Subtotal 21

**Library Information Technology Track - 110801704**

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>LIT 115</td>
<td>Introduction to Reference Services</td>
<td>3</td>
</tr>
<tr>
<td>LIT 124</td>
<td>Library Administration</td>
<td>3</td>
</tr>
<tr>
<td>LIT 132</td>
<td>Library Technical Services</td>
<td>3</td>
</tr>
<tr>
<td>LIT 243</td>
<td>Library Services for Children OR</td>
<td>3</td>
</tr>
<tr>
<td>LIT 245</td>
<td>Library Services for Young Adults OR</td>
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</tr>
<tr>
<td>LIT 247</td>
<td>Library Services for Adults OR</td>
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</tr>
<tr>
<td>LIT 115</td>
<td>Library &amp; Information Technology Track Courses</td>
<td>9</td>
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Choose a total of 9 hours from the following:

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>LIT 120</td>
<td>Readers' Advisory Services</td>
<td>3</td>
</tr>
<tr>
<td>LIT 243</td>
<td>Library Services for Children **</td>
<td>3</td>
</tr>
<tr>
<td>LIT 245</td>
<td>Library Services for Young Adults **</td>
<td>3</td>
</tr>
<tr>
<td>LIT 247</td>
<td>Library Services for Adults **</td>
<td>3</td>
</tr>
<tr>
<td>IMD 210</td>
<td>Microsoft Office Applications</td>
<td>3</td>
</tr>
<tr>
<td>LIT 285</td>
<td>History of Libraries</td>
<td>3</td>
</tr>
<tr>
<td>LIN 175</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>LIT 299</td>
<td>Selected Topics in Library Information Management (may be repeated for up to 6 hours)</td>
<td>1-3</td>
</tr>
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</table>

** Course can be used as LIT track course if not utilized as LIT track core course

Subtotal 21

Total 60

**Video Game Design Track – 110801705**

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD/CIT124</td>
<td>Introduction to Game Development</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT274</td>
<td>Seminar in Game Development</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT221</td>
<td>Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT222</td>
<td>3D Modeling for Video Games</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT223</td>
<td>3D Animation for Video Games</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT273</td>
<td>Game Production</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT273</td>
<td>Video Game Design Track Course</td>
<td>3</td>
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Choose from Video Game Design Track Courses:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 203</td>
<td>Business Writing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 180</td>
<td>Intermediate Web Design with Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 240</td>
<td>Multimedia Development for the Web</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250</td>
<td>Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>IMD 290</td>
<td>Photography</td>
<td>3</td>
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** IMD 128  Raster Design with Photoshop .......................... 3 **
** IMD 127  Vector Design with Illustrator.......................... 3 **
** IMD 210  Microsoft Office Applications .................... 3 **
** IMD 228  Advanced Photoshop .................................. 3 **
** IMD 294  Seminar in Information Management and Design ........ 3 **
** IMD 299  Selected Topics in Information Management and Design .... 3 **
** MGT 282  Principles of Marketing ............................. 3 **

Other Video Game Design Courses approved by Program Coordinator

Other Information Management & Design, Computer & Information Technologies, Architectural, Business, Communication, Fine Arts or other Track Appropriate Courses Approved by Program Coordinator

Subtotal 21

Total 60

**Certificate**

Library Information Technology - 1108013019

(Offered at BLC)

<table>
<thead>
<tr>
<th>Required:</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>LIT 115</td>
<td>Introduction to Reference Services</td>
<td>3</td>
</tr>
<tr>
<td>LIN 175</td>
<td>Information Literacy</td>
<td>3</td>
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Students will select one course from each of the following groups:

1. **Library Procedures**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>LIT 124</td>
<td>Library Administration OR</td>
<td>3</td>
</tr>
<tr>
<td>LIT 132</td>
<td>Library Technical Services</td>
<td>3</td>
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</table>

2. **Library Services**

<table>
<thead>
<tr>
<th>Required:</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>LIT 120</td>
<td>Readers’ Advisory Services</td>
<td>3</td>
</tr>
<tr>
<td>LIT 243</td>
<td>Library Services for Children OR</td>
<td>3</td>
</tr>
<tr>
<td>LIT 245</td>
<td>Library Services for Young Adults OR</td>
<td>3</td>
</tr>
<tr>
<td>LIT 247</td>
<td>Library Services for Adults OR</td>
<td>3</td>
</tr>
<tr>
<td>LIT 248</td>
<td>Library Services for Preschool Children OR</td>
<td>3</td>
</tr>
<tr>
<td>LIN 175</td>
<td>Genealogy Services in Libraries</td>
<td>3</td>
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</table>

3. **Library Information Technology Elective**

<table>
<thead>
<tr>
<th>Required:</th>
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<th>Credits</th>
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<td>LIT elective: any LIT course above LIT 115</td>
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Total 15

Digital Video – 1108013049

(Offered at BLC)

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250</td>
<td>Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>IMD 255</td>
<td>Digital Video Editing II</td>
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<tr>
<td>IMD 258</td>
<td>Visual Effects for Video</td>
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Total 12

**Graphic Design – 1108013029**

(Offered at BLC)

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 126</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 127</td>
<td>Vector Design with Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 226</td>
<td>Advanced Desktop Publishing</td>
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Total 15

**Video Game Design – 1108013059**

(Offered at )

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<th>Credits</th>
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<tr>
<td>IMD/CIT124</td>
<td>Introduction to Game Development</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT221</td>
<td>Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT222</td>
<td>3D Modeling for Video Games</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT223</td>
<td>Computer Animation</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT273</td>
<td>Game Production</td>
<td>3</td>
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</table>

Total 15

157
Health Care Foundations

This certificate will prepare entry-level health care workers with basic health care knowledge and skills in the areas of health care delivery and management, health care communication, basic skills I & II, pharmacology, clinical pathophysiology and medical terminology.

Certificate

Health Care Foundations-Basic - 5139023209
(Of Offered at ASC, HZC, JFC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HST 101</td>
<td>Health Care Basic Skills I OR</td>
<td>3</td>
</tr>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical</td>
<td>3 (3.5)</td>
</tr>
<tr>
<td>HST 102</td>
<td>Health Care Delivery &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>HST 103</td>
<td>Health Care Communication</td>
<td>2</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
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Subtotal: 11-11.5

Health Care Foundations-Intermediate - 5139023219
(Of Offered at ASC, JFC)

<table>
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<tbody>
<tr>
<td>HST 101</td>
<td>Health Care Basic Skills I OR</td>
<td>3</td>
</tr>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical</td>
<td>3 (3.5)</td>
</tr>
<tr>
<td>HST 102</td>
<td>Health Care Delivery &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>HST 103</td>
<td>Health Care Communication</td>
<td>2</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HST 121</td>
<td>Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>HST 122</td>
<td>Clinical Pathophysiology</td>
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<tr>
<td>HST 123</td>
<td>Health Care Basic Skills II</td>
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Subtotal: 18-18.5

Health Care Specialist

This certificate prepares students for a variety of Health IT workforce roles across hospitals, clinics, and other healthcare organizations that are integral to the implementation and management of electronic health information systems. The knowledge gained through completion of this certificate can be used to gain employment locally, regionally, and nationally.

Students will select a certificate track of Practice Workflow/Redesign Specialist, Clinician/Practitioner Consultant, Implementation Manager, Technical Software Support Specialist, Implementation Support Technician, or Trainer Specialist, all of which map to AHIMA’s (American Health Information Management Association) Certified Healthcare Technology Specialist (CHTS), and CompTIA’s HIT Technician and Pro Certifications.

Certificate

Health Care Specialist - 5107073079
(Of Offered at HZC, MDC)

<table>
<thead>
<tr>
<th>Core:</th>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Lab</td>
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Subtotal: 10

Clinician/Practitioner Consultant Track – 510707302
(Of Offered at HZC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 150</td>
<td>Health IT Analysis &amp; Quality</td>
<td>2</td>
</tr>
<tr>
<td>HCS 165</td>
<td>Health Management Systems</td>
<td>2</td>
</tr>
<tr>
<td>HCS 220</td>
<td>Working with Health IT Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 290</td>
<td>Leadership in Health IT</td>
<td>1</td>
</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
<td>1</td>
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Total: 18

Implementation Manager Track – 510707303
(Of Offered at HZC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HCS 110</td>
<td>Culture of Healthcare</td>
<td>1</td>
</tr>
<tr>
<td>HCS 125</td>
<td>History in Healthcare</td>
<td>1</td>
</tr>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 150</td>
<td>Health IT Analysis &amp; Quality</td>
<td>2</td>
</tr>
<tr>
<td>HCS 280</td>
<td>Project Management &amp; Teams</td>
<td>1</td>
</tr>
<tr>
<td>HCS 290</td>
<td>Leadership in Health IT</td>
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</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
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Total: 18

Implementation Support Specialist Track – 510707305
(Of Offered at HZC, MDC)

<table>
<thead>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 200</td>
<td>Health IT Computer Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 210</td>
<td>Implementing Health IT Systems</td>
<td>3</td>
</tr>
<tr>
<td>HCS 220</td>
<td>Working with Health IT Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 230</td>
<td>Vendor-Specific Systems</td>
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<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
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Total: 19

Practice Workflow/Redesign Specialist Track – 510707301
(Of Offered at HZC, MDC)

<table>
<thead>
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<th>Title</th>
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<tbody>
<tr>
<td>HCS 110</td>
<td>Culture of Healthcare</td>
<td>1</td>
</tr>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 150</td>
<td>Health IT Analysis &amp; Quality</td>
<td>2</td>
</tr>
<tr>
<td>HCS 165</td>
<td>Health Management Systems</td>
<td>2</td>
</tr>
<tr>
<td>HCS 180</td>
<td>Usability &amp; Human Factors</td>
<td>1</td>
</tr>
<tr>
<td>HCS 200</td>
<td>Health IT Computer Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
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</table>

Total: 19

Technical Software Support Specialist Track – 510707304
(Of Offered at HZC, MDC)

<table>
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<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 200</td>
<td>Health IT Computer Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 210</td>
<td>Implementing Health IT Systems</td>
<td>3</td>
</tr>
<tr>
<td>HCS 220</td>
<td>Working with Health IT Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 230</td>
<td>Vendor-Specific Systems</td>
<td>2</td>
</tr>
<tr>
<td>HCS 281</td>
<td>Health IT Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
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</tr>
</tbody>
</table>

Total: 20

Training Specialist Track – 510707306
(Of Offered at HZC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HCS 100</td>
<td>Public Health Care in the US</td>
<td>2</td>
</tr>
<tr>
<td>HCS 110</td>
<td>Culture of Healthcare</td>
<td>1</td>
</tr>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 165</td>
<td>Health Management Systems</td>
<td>2</td>
</tr>
<tr>
<td>HCS 180</td>
<td>Usability &amp; Human Factors</td>
<td>1</td>
</tr>
<tr>
<td>HCS 260</td>
<td>Health IT Instructional Design</td>
<td>1</td>
</tr>
<tr>
<td>HCS 281</td>
<td>Health IT Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
<td>1</td>
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Total: 20
Healthcare Facilities Leadership

The Healthcare Facilities Leadership program prepares students for a highly innovative and rapidly changing professional career as a Healthcare Facilities Leader/Manager. Students receive an education in office and hospital procedures, client relations and communications, leadership, finances, energy management, public speaking, construction, infection control, maintenance operations, and codes and compliance. This knowledge can be used to gain employment locally, regionally, or nationally. Overall, the students in this program receive an education that provides marketable skills, preparing them to be employed in a high demand profession.

Associate in Applied Science

Healthcare Facilities Leadership – 4604017019

(Offered at OWC)

General Education Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Math</td>
<td>(3)</td>
</tr>
<tr>
<td>PHI 110</td>
<td>Medical Ethics</td>
<td>3</td>
</tr>
<tr>
<td>HFL 100</td>
<td>Introduction to Healthcare Facility Management</td>
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<tr>
<td>HFL 110</td>
<td>Introduction to Healthcare Industry</td>
<td>2</td>
</tr>
<tr>
<td>HFL 120</td>
<td>Infection Control and Prevention</td>
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<tr>
<td>HFL 130</td>
<td>Compliance, Codes, and Standards I</td>
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</tr>
<tr>
<td>HFL 140</td>
<td>Maintenance and Operations I</td>
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<td>HFL 150</td>
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<td>COM 181</td>
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<tr>
<td>HFL 230</td>
<td>Compliance, Codes, and Standards II</td>
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<td>Maintenance and Operations II</td>
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<tr>
<td>HFL 250</td>
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<td>HFL 260</td>
<td>Healthcare Facilities Leadership Capstone I</td>
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<td>HFL 270</td>
<td>Healthcare Facilities Leadership Capstone II</td>
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<td>BAS 287</td>
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<td>BAS 289</td>
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<td>BAS 212</td>
<td>Introduction to Financial Management</td>
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<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics</td>
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<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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Total Credits 62-63

Diploma

Healthcare Facilities Leadership - 4604014029

(Offered at OWC)

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<td>HFL 110</td>
<td>Introduction to Healthcare Industry</td>
<td>2</td>
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<tr>
<td>HFL 120</td>
<td>Infection Control and Prevention</td>
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</tr>
<tr>
<td>HFL 130</td>
<td>Compliance, Codes, and Standards I</td>
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<tr>
<td>HFL 140</td>
<td>Maintenance and Operations I</td>
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<td>Planning, Design, and Construction I</td>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
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<tr>
<td>HFL 230</td>
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<td>HFL 240</td>
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<tr>
<td>HFL 260</td>
<td>Healthcare Facilities Leadership Capstone I</td>
<td>3</td>
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<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics</td>
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<tr>
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Total Credits 43-46

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 (CAHIIM) Registered Health Information Technician examination and the CCA coding examination. Graduates of the medical records coding specialist certificate may write the American Health Information Management Association’s CCA coding examination and the American Academy of Professional Coders’ CPC-A (and others as qualified) coding examinations.

For students completing the AAS in Health Information Technology, 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 is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) at each college. Additional information may be found at CAHIIM’s website URL: http://cahiim.org

Certificate

Healthcare Facilities Foundation - 4604013119

(Offered at OWC)

<table>
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<th>Course Title</th>
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<td>Introduction to Healthcare Facility Management</td>
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<td>HFL 110</td>
<td>Introduction to Healthcare Industry</td>
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<td>HFL 130</td>
<td>Compliance, Codes, and Standards I</td>
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<td>HFL 140</td>
<td>Maintenance and Operations I</td>
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<td>HFL 150</td>
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Total Credits 16

Associate in Applied Science

Health Information Technology - 5107077019

(Offered at GTH, HZC, JFC)

General Education Requirements:

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<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
<td>(4)</td>
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<td>BIO 139</td>
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<td>(4)</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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<tr>
<td>PSY 110</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
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<td>HER/HUM 1</td>
<td>Heritage/Humanities</td>
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Subtotal 16-20
Technical Course Requirements:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
<td>3</td>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
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</tr>
<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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<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>(3)</td>
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<tr>
<td>HIT 100</td>
<td>Introduction to Health Information Technology</td>
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<td>HIT 105</td>
<td>Patho/Pharm for Health Information Professionals</td>
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<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
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<td>OST 240</td>
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<td>HIT 109</td>
<td>Clinical Classification Systems I</td>
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<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
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<td>HIT 112</td>
<td>Reimbursement Methodologies</td>
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<td>HIT 200</td>
<td>Information Systems in Healthcare</td>
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<td>HIT 202</td>
<td>Clinical Classification Systems II</td>
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<tr>
<td>HIT 205</td>
<td>Performance Improvement in Health Information</td>
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<tr>
<td>HIT 207</td>
<td>Clinical Classification Systems III</td>
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<td>HIT 211</td>
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<td>HIT 215</td>
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<tr>
<td>HIT 2151</td>
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NOTE: BIO 137 and BIO 139 are required at JCTC.

Certificate

**HIT Coding- 5107073089**

*(Offered at GTW, HZC, JFC)*

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
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<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
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</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
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</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>
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<tr>
<td>HIT 100</td>
<td>Introduction to Health Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>HIT 105</td>
<td>Patho/Pharm for Health Information Professionals</td>
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<tr>
<td>HIT 109</td>
<td>Clinical Classification Systems I</td>
<td>4</td>
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<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
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<td>HIT 200</td>
<td>Information Systems in Healthcare</td>
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<td>HIT 202</td>
<td>Clinical Classification Systems II</td>
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<td>HIT 205</td>
<td>Performance Improvement in Health Information</td>
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<td>HIT 207</td>
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<td>HIT 215</td>
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Release of Information Data Specialist – 5107073099

*(Offered at GTW, HZC, JFC)*

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<td>Legal/Ethical Issues in Health Information</td>
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<tr>
<td>BIO 135</td>
<td>Human 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>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek or Latin OR</td>
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<td>Medical Office Terminology OR</td>
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<td><strong>Total Credits</strong></td>
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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.

Associate in Applied Science

**Health Science Technology – 5100007019**

*(Offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, JFC, MDC, WKC)*

**General Education**

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<tr>
<td>MAT 110</td>
<td>Applied Math</td>
<td>(3)</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>FYE 105</td>
<td>Achieving Academic Success</td>
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<tr>
<td>BIO 135</td>
<td>Basic Human Anatomy OR</td>
<td>4</td>
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<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
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<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>Social/Behavioral Sciences</td>
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<tr>
<td>Heritage/Humanities</td>
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<td>Oral Communications</td>
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**Technical Core:**

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<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 OR</td>
<td>(3)</td>
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<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
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<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
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<td>Digital Literacy#</td>
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</table>

# Digital Literacy must be demonstrated by computer exam or successfully completing a digital literacy course.

** Health Science Technical Course selection must result in final attainment of a minimum of three (3) certificate credentials.

Students may be able to earn certificates that are already present in other curricula, including but not limited to:

- Nursing Assistant
- Phlebotomy for the Healthcare Worker
- Medical Coding
- Advanced Nursing Assistant
- Medical Office Radiology
- Pharmacy Technician I

Student may take the following courses to meet the required 60 credit hours needed for the Health Science Technology degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Code</th>
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<td>PHY 172</td>
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<td>BIO 139</td>
<td>HST 101</td>
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<td>AHS 115</td>
<td>BIO 225</td>
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<td>NAA 102</td>
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<td>OST 110</td>
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<td>AHS 203</td>
<td>COM 181</td>
<td>HST 104</td>
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<td>BAS 120</td>
<td>COM 252</td>
<td>HST 121</td>
<td>PHY 171</td>
<td>WPP 200</td>
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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)

General Education:

Area 1 = Written Communication, Oral Communications, or Heritage/Humanities .................................................. 3
Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning* .................................................. 3
Subtotal 6

*MAT 116 or higher level Quantitative Reasoning course required at SEC

Technical Courses:

HEO 151 Operating Engineer .................................................. 6
DIT 103 Preventive Maintenance Lab ........................................ 2
HEO 111 Bulldozer Operator .................................................. 7
DIT 103 Preventive Maintenance Lab ........................................ 2
HEO 125 Special Problems I .................................................. 3
Total Technical Credits 29-32

Subtotal 15

Total Credits 35-38

Certificates

Backhoe Operator - 4902023069

(Offered at HZC, WKC)

HEO 110 Power Shovel Backhoe Operator ................................ 7
DIT 103 Preventive Maintenance Lab ........................................ 2
HEO 125 Special Problems I .................................................. 3
Total Credits 12

Bulldozer Operator - 4902023029

(Offered at HZC, WKC)

HEO 111 Bulldozer Operator .................................................. 7
DIT 103 Preventive Maintenance Lab ........................................ 2
HEO 125 Special Problems I .................................................. 3
Total Credits 12

Front-End Loader Operator - 4902023079

(Offered at HZC, WKC)

HEO 107 Utility Tractor Loader Operator ................................ 7
DIT 103 Preventive Maintenance Lab ........................................ 2
HEO 125 Special Problems I .................................................. 3
Total Credits 12

Hydraulic Excavator Operator - 4902023059

(Offered at HZC, WKC)

HEO 151 Heavy Equipment Operating I .................................. 6
HEO 115 Hydraulic Excavator Operator ................................... 7
DIT 103 Preventive Maintenance Lab ........................................ 2
HEO 125 Special Problems I .................................................. 3
Total Credits 18

Motor-Grader Operator - 4902023049

(Offered at HZC, WKC)

HEO 106 Motor-Grader Operator ............................................ 7
DIT 103 Preventive Maintenance Lab ........................................ 2
HEO 125 Special Problems I .................................................. 3
Total Credits 12

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 JFC)

BRX 220 Blueprint Reading for Construction ................................ 3
ACH 120 Theory and History of Architecture I ............................ 3
HIS 240 History of Kentucky ................................................ 3
HPT 100 Introduction to Historic Preservation .......................... 3
HPT 101 Introduction to Historic Preservation Lab ....................... 2
ISX 100 Industrial Safety OR ................................................. 3
ISX 101 Introduction to Industrial Safety OR .............................. 3
Technical Electives* .......................................................... 8
Total 25

*Technical Electives: Select a minimum of 8 credit hours
HPT 120 Traditional Woodworking .......................................... 2
HPT 200 Masonry Repointing and Repair ................................ 2
HPT 202 Window Restoration and Repair ................................ 2
HPT 204 Roof Restoration and Repair ..................................... 2
HPT 298 Field Experience Practicum ....................................... 2

Horticulture

The Horticulture program provides students with knowledge and skills needed for careers in greenhouse, nursery, and landscape operations. Students acquire practical experience in turf and landscape maintenance, design, plant production, and business management.

Associate in Applied Science

Horticulture - 0106017019

General Education:

Quantitative Reasoning ..................................................... 3
Natural Sciences ............................................................... 3
Heritage/Humanities ......................................................... 3
Social/Behavioral Sciences .................................................. 3
Written Communication ..................................................... 3
Subtotal 15

161
Technical Core:

Computer/Digital Literacy* .................................. 0-3
HRT 110 Nursery Management .................................. 4
HRT 120 Turf Management OR .................................. 4
HRT 160 Retail Floral Design AND .................................. (4)
HRT 161 Retail Floral Design Lab ................................ (2)
HRT 130 Landscape Maintenance ................................ 3
HRT 131 Landscape Maintenance Lab ................................ 2
HRT 150 Horticulture Business Management .................. 3
HRT 210 Landscape Design ........................................ 4
HRT 240 Greenhouse Management ................................ 2
HRT 241 Greenhouse Management Lab ................................ 2
Subtotal 26-31

* Must meet computer/digital literacy requirement.

Business Track - 010601702

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE 199</td>
<td>Cooperative Education OR</td>
<td>2</td>
</tr>
<tr>
<td>COED 198</td>
<td>Practicum</td>
<td>(2)</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting</td>
<td>3</td>
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<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BMO 170</td>
<td>Introduction to Business Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 215</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
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</tbody>
</table>

Electives (Horticulture Course List including COE198) ................................ 3
Subtotal 20

Total Business Track Credits 61-66

Science Track - 010601701

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COE 199</td>
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</tr>
<tr>
<td>COED 198</td>
<td>Practicum</td>
<td>(3)</td>
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<tr>
<td>HRT 104</td>
<td>Introduction to Herbaceous Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 108</td>
<td>Introduction to Woody Plants</td>
<td>4</td>
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</table>

Electives (Horticulture Course List including COE198) ................................ 8
Subtotal 22

Total Science Track Credits 63-68

Diploma

Landscape Technology - 0106014009

General Education:

Area 1= Written Communication, Oral Communications, or Heritage/Humanities .................................. 3
Area 2= Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning ................................. 3
Subtotal 6

Technical:

Computer/Digital Literacy* .................................. 3
COE 199 Cooperative Education OR .................................. 6
COED 198 Practicum ................................................. (6)
HRT 104 Introduction to Herbaceous Plants .................................. 4
HRT 108 Introduction to Woody Plants .................................. 4
HRT 120 Turf Management OR .................................. 4
HRT 160 Retail Floral Design AND .................................. (4)
HRT 161 Retail Floral Design Lab .................................. (2)
HRT 130 Landscape Maintenance ................................ 3
HRT 131 Landscape Maintenance Lab ................................ 2
HRT 210 Landscape Design ........................................ 4
Subtotal 30-32

Total 36-38

* If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.

Ornamental Horticulture - 0106014029

(Offered at MYC)

General Education:

Area 1= Written Communication, Oral Communications, or Heritage/Humanities .................................. 3
Area 2= Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning ................................. 3
Subtotal 6

Technical:

Computer/Digital Literacy* .................................. 3
COE 199 Cooperative Education OR .................................. 3
COED 198 Practicum ................................................. (3)
HRT 104 Introduction to Herbaceous Plants .................................. 4
HRT 108 Introduction to Woody Plants .................................. 4
HRT 110 Nursery Management ................................ 4
HRT 120 Turf Management OR .................................. 4
HRT 160 Retail Floral Design AND .................................. (4)
HRT 161 Retail Floral Design Lab .................................. (2)
HRT 130 Landscape Maintenance ................................ 3
HRT 131 Landscape Maintenance Lab ................................ 2
HRT 241 Greenhouse Management Lab ................................ 2
COED 198 Practicum ................................................. 8
Subtotal 48-50

Total 54-56

Certificates

Greenhouse Operations - 0106013029

(Offered at MYC)

HRT 240
HRT 241

Introduction to Herbaceous Plants .................................. 4
Greenhouse Management .................................. 4
Greenhouse Management Lab .................................. 2
Electives (Horticulture Course List) .................................. 6
Total Credits 12

Greenhouse Production – 010613019

Introduction to Herbaceous Plants .................................. 4
Greenhouse Management .................................. 4
Greenhouse Management Lab .................................. 2
Electives (Horticulture Course List) .................................. 8
Total Credits 18

Horticulture Sales - 0106013119

(Offered at MYC)

Introduction to Woody Plants OR .................................. 4
Introduction to Herbaceous Plants .................................. 4
Turf Management OR .................................. 4
Retail Floral Design AND .................................. (4)
Retail Floral Design Lab .................................. (2)
Landscape Maintenance ................................ 3
Horticulture Business Management ................................ 3
Electives (Horticulture Course List) .................................. 1-2
Total Credits 15-18

Landscape Installation - 0106013049

(Offered at MYC)

Introduction to Woody Plants OR .................................. 4
Introduction to Herbaceous Plants .................................. 4
Landscape Maintenance ................................ 3
Landscape Maintenance Lab .................................. 2
Electives (Horticulture Course List) .................................. 3
Total Credits 12
Landscape Planning - 0106013059  
(Offered at MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HRT 104</td>
<td>4</td>
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<td>HRT 108</td>
<td>4</td>
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<tr>
<td>HRT 130</td>
<td>3</td>
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<tr>
<td>HRT 131</td>
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Lawn Maintenance - 0106013069  
(Offered at MYC)

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<tbody>
<tr>
<td>HRT 120</td>
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<td>HRT 130</td>
<td>3</td>
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Nursery Operations - 0106013089  
(Offered at MYC)

<table>
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<tr>
<td>HRT 108</td>
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<tr>
<td>HRT 110</td>
<td>4</td>
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<tr>
<td>Electives (Horticulture Course List including COE198)</td>
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</table>

Nursery Production - 0106013079  
(Offered at MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HRT 108</td>
<td>4</td>
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<tr>
<td>HRT 110</td>
<td>4</td>
</tr>
<tr>
<td>HRT 240</td>
<td>4</td>
</tr>
<tr>
<td>Electives (Horticulture Course List including COE198)</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</table>

Human Services

This program prepares individuals for entry level positions in agencies and institutions which provide social, community, educational and mental health services. The curriculum provides an opportunity for the student to develop the knowledge and skills necessary for entry level employment. Included in the curriculum is a core of human services courses, general education courses, and technical courses with a specific human services emphasis. Application of human services principles and skills is provided through a clinical experience in an appropriate setting.

Upon completion of the program the graduate is prepared to seek employment in various areas which may include child care facilities, mental health settings, chemical dependency settings, hospitals, educational institutions, correctional facilities, geriatric settings, child and youth centers, and social service agencies.

Students obtain a “C” or better in all core classes (HMS 101, HMS 102, HMS 103, HMS 104 and HMS 248 or HMS 251) and also in the two technical courses that have been selected to complete the core requirements.

Associate in Applied Science  
Human Services- 4400007000  
(Offered at BLC, BSC, ELC, GTW, HFC, HZC, JFC, MDC, SEC)

<table>
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<tr>
<th>Course</th>
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<tr>
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<td>PSY 223</td>
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<tr>
<td>SOC 101</td>
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Technical Core:

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<th>Course</th>
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<tbody>
<tr>
<td>CIT 105</td>
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<tr>
<td>HMS 101</td>
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<tr>
<td>HMS 102</td>
<td>3</td>
</tr>
<tr>
<td>HMS 103</td>
<td>3</td>
</tr>
<tr>
<td>HMS 104</td>
<td>3</td>
</tr>
<tr>
<td>HMS 248</td>
<td>3</td>
</tr>
<tr>
<td>HMS 251</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
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<td><strong>Total Credits</strong></td>
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Technical Courses: Choose six hours  

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<tbody>
<tr>
<td>CRJ 100</td>
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<tr>
<td>CRJ 208</td>
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</tr>
<tr>
<td>EDP 203</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>3</td>
</tr>
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<td>FAM 253</td>
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<tr>
<td>HMS 210</td>
<td>3</td>
</tr>
<tr>
<td>HMS/SWK 200</td>
<td>3</td>
</tr>
<tr>
<td>HMS/SWK 211/255</td>
<td>3</td>
</tr>
<tr>
<td>HMS/SWK 212/260</td>
<td>3</td>
</tr>
<tr>
<td>HMS/SWK 220</td>
<td>3</td>
</tr>
<tr>
<td>HMS/SWK 235/250</td>
<td>3</td>
</tr>
<tr>
<td>SED 101</td>
<td>3</td>
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<tr>
<td>SED 102</td>
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<tr>
<td>SOH 230</td>
<td>3</td>
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<tr>
<td>SWK 124</td>
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<tr>
<td>SWK 222</td>
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<td>SWK 269</td>
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<td>SWK 280</td>
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<td>SWK 281</td>
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Murray State University Courses:

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<tbody>
<tr>
<td>SWK 120</td>
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<tr>
<td>SWK 121</td>
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<td><strong>Total Credits</strong></td>
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</tbody>
</table>

Eastern Kentucky University Courses:

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<tr>
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<tbody>
<tr>
<td>COR 108</td>
<td>3</td>
</tr>
<tr>
<td>COR 123*</td>
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</tr>
<tr>
<td>COR 423*</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</table>

* Special Topics course at EKU; different section numbers indicate different topic content

**Note:** Technical Core courses require a minimum of 90 of the 120 total credits for the degree.

**Total Credits:** 60

**Subtotal:** 100

**Total Credits:** 163
## Technical Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMS/211/255</td>
<td>Introduction to Addictions</td>
<td>3</td>
</tr>
<tr>
<td>HMS/212/260</td>
<td>Crisis Intervention</td>
<td>3</td>
</tr>
<tr>
<td>HMS/220</td>
<td>Cultural Diversity in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HMS 265</td>
<td>Working with Disabilities in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>SWK 180</td>
<td>Introduction to Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>SWK 276</td>
<td>Criminology</td>
<td>3</td>
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<tr>
<td>SWK 281</td>
<td>Psychology of Aging</td>
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## Recovery Coach – 4400003089

(Offered at BSC, BLC, ELC, GTW, HEC, HZC, SEC, WKN)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HMS 101</td>
<td>Human Services Survey</td>
<td>3</td>
</tr>
<tr>
<td>HMS 102</td>
<td>Values of Human Services in a Contemporary Society</td>
<td>3</td>
</tr>
<tr>
<td>HMS 103</td>
<td>Theories and Techniques in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HMS 104</td>
<td>Group Dynamics</td>
<td>3</td>
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<tr>
<td>HMS 240</td>
<td>Crisis Intervention</td>
<td>3</td>
</tr>
<tr>
<td>HMS 248</td>
<td>Service Coordination for Human Services Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HMS 251</td>
<td>Clinical Practice in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>The Family OR</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>Introduction to Family Science</td>
<td>3</td>
</tr>
</tbody>
</table>

## Industrial Chemical Technology

This program is designed based on North American Process Technician Alliance (NAPTA) principles for process technicians. Basic knowledge in the areas of environmental health and safety, quality control, chemistry, process equipment, process operations, troubleshooting, and workplace skills helps ensure graduates enter the workforce with the fundamentals in operations of a modern chemical facility.

### Associate in Applied Science

**Industrial Chemical Technology - 4103017101**

(Offered at JFC)

#### General Education

<table>
<thead>
<tr>
<th>Course Code</th>
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<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHE 145</td>
<td>Introductory General Chemistry Lab</td>
<td>1</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>ICT 196</td>
<td>Process Technology Operations</td>
<td>3</td>
</tr>
<tr>
<td>ICT 230</td>
<td>Health, Safety, &amp; Environmental Practices OR</td>
<td>3</td>
</tr>
<tr>
<td>ITE 250</td>
<td>Team Dynamics and Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>PHH 152</td>
<td>Introductory Physics II AND</td>
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<tr>
<td>PHY 162</td>
<td>Introductory Physics II Lab</td>
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<td>ELT 295</td>
<td>Independent Problems OR</td>
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<tr>
<td>COE 199</td>
<td>Co-operative Education</td>
<td>1-4</td>
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</tbody>
</table>

**Total** 61-67
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>
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<tr>
<td>INS 100</td>
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<td>INS 101</td>
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<tr>
<td>INS 102</td>
<td>3</td>
</tr>
<tr>
<td>INS 103</td>
<td>3</td>
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</table>

Integrated Engineering Technology

The Integrated Engineering Technology Program offers students the opportunity to build a career maintaining integrated manufacturing systems found in advanced manufacturing, with an emphasis on automotive manufacturing. The program leads students through a mechatronics approach to maintaining and troubleshooting highly-automated, complex manufacturing systems that include programmable logic controllers, robots, various types of drives, sensors, photoeyes, and electrohydraulics and electropneumatics. Graduates will be able to work as maintenance technicians in most manufacturing settings, particularly manufacturing settings related to the automotive industry.

Associate in Applied Science

Integrated Engineering Technology – 1442017019
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101</td>
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<tr>
<td>MAT 126</td>
<td>3</td>
</tr>
<tr>
<td>Technical Algebra and Trigonometry OR</td>
<td>3</td>
</tr>
<tr>
<td>Higher Level Quantitative Reasoning Course</td>
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</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<td>Heritage/Humanities</td>
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<td>Natural Sciences</td>
<td>3</td>
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<tr>
<td>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
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Technical Courses:

<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>Computer/Digital literacy</td>
<td>3</td>
</tr>
<tr>
<td>Preventive Maintenance</td>
<td>2</td>
</tr>
<tr>
<td>Blueprint Reading/Schematics</td>
<td>2</td>
</tr>
<tr>
<td>Basic Electricity/Electronics</td>
<td>3</td>
</tr>
<tr>
<td>Mechanical Drive Systems</td>
<td>5</td>
</tr>
<tr>
<td>Safety</td>
<td>3</td>
</tr>
<tr>
<td>Welding and Fabrication</td>
<td>4</td>
</tr>
<tr>
<td>Machine Tool Operations</td>
<td>4</td>
</tr>
<tr>
<td>Electrohydraulics/Pneumatics</td>
<td>6</td>
</tr>
<tr>
<td>Programmable Logic Controllers</td>
<td>5</td>
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<tr>
<td>Robot Maintenance</td>
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<tr>
<td>Controls and Instrumentation</td>
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<tr>
<td>Total Credits</td>
<td>46</td>
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</table>

Total Credits 64
Interdisciplinary Early Childhood Education

The Interdisciplinary Early Childhood Education Program is designed to provide students an understanding of the cognitive, physical, social and emotional development for working with young children. Opportunities to apply this knowledge in practical experiences are incorporated in the curriculum. Curriculum topics include, but are not limited to, developmental ages and stages, health and safety, curriculum planning, assessment and family involvement. Employment opportunities are available in public and private preschools, early care educational settings, early intervention programs, Head Start, hospitals, campus child development centers, rehabilitation clinics and recreation centers.

Students must earn a “C” or higher in each of the IEC courses in order to graduate.

Associate in Applied Science

Interdisciplinary Early Childhood Education - 1907097019

(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SEC, 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

Digital Literacy course OR demonstrated competency ..................... 0-3
IEC 101 Orientation to Early Childhood Education .......................... 3
IEC 102 Foundations of Early Childhood Education ...................... 3
IEC 130 Early Childhood Development ......................................... 3
IEC 170 Observation & Assessment ............................................. 3
IEC 180 Approaches to Early Childhood Education Curriculum ...... 3
IEC 200 Child Guidance ............................................................ 3
IEC 216 Literacy and Language in IECE ...................................... 3
IEC 221 Creative Expressions in IECE ......................................... 3
IEC 235 Introduction to Inclusive Education ................................. 3
IEC 246 Sciences and Mathematics for IECE ............................... 3
IEC 291 IECE Practicum/Cooperative Education ........................... 3
Subtotal .................................................................................. 33-36

Choose 6 hours from the following approved technical support elective courses:

IEC 210 Families & Communities in Early Childhood Education ...... 3
IEC 230 Business Administration of ECE Programs OR ................. 3
BAS 200 Small Business Management ....................................... (3)
IEC 240 Administration of Early Childhood Education .................. 3
IEC 250 School Age Child Care .................................................. 3
IEC 260 Infant and Toddler Education and Programming ............... 3
Subtotal .................................................................................. 6

Total Credits ........................................................................... 60-64

Diploma

Interdisciplinary Early Childhood Education - 1907094019

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

Area 1 = Written Communication, Oral Communications, or Heritage/Humanities .................................................. 3
Area 2 = Social/Behavioral Sciences, or Quantitative Reasoning ................................................................. 3
Subtotal .................................................................................. 6

Digital Literacy course OR demonstrated competency ..................... 0-3
IEC 101 Orientation to Early Childhood Education ...................... 3
IEC 102 Foundations of Early Childhood Education ...................... 3
IEC 130 Early Childhood Development ......................................... 3
IEC 170 Observation & Assessment ............................................. 3
IEC 180 Approaches to Early Childhood Education Curriculum ...... 3
IEC 200 Child Guidance ............................................................ 3
IEC 216 Literacy and Language in IECE ...................................... 3
IEC 221 Creative Expressions in IECE ......................................... 3
IEC 235 Introduction to Inclusive Education ................................. 3
IEC 246 Sciences and Mathematics for IECE ............................... 3
IEC 291 IECE Practicum/Cooperative Education ........................... 3
Subtotal .................................................................................. 33-36

Choose two of the following approved technical support elective courses:

IEC 230 Business Administration of ECE Programs OR ................ 3
BAS 200 Small Business Management ....................................... (3)
IEC 240 Administration of Early Childhood Education .................. 3
IEC 250 School Age Child Care .................................................. 3
IEC 260 Infant and Toddler Education and Programming ............... 3
IEC 210 Families & Communities in Early Childhood Education ...... 3
Subtotal .................................................................................. 6

Total Credits: ........................................................................... 45-48

Certificate

Child Care Assistant - 1907093039

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

Required:
IEC 101 Orientation to Early Childhood Education ...................... 3
IEC 102 Foundations of Early Childhood Education ...................... 3
Any IEC three (3) hour course with the exception of IEC 230, IEC 250, IEC 291, and BAS 200 ........................................... 3
Total Credits ........................................................................... 9

Early Childhood Administrator - 1907093059

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, 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 230 Business Administration of ECE Programs OR ................ 3
BAS 200 Small Business Management ....................................... (3)
IEC 240 Administration of Early Childhood Education .................. 3
Total Credits ........................................................................... 12

Option Two: With a current CDA Articulated credit for IEC 101 and IEC 102

Required:
IEC 230 Business Administration of ECE Programs OR ................ 3
BAS 200 Small Business Management ....................................... (3)
Interdisciplinary Early Childhood Education Technical Studies - 1907093019

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

Required:

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<tr>
<th>Course</th>
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<tr>
<td>IEC 101</td>
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<td>IEC 102</td>
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<td>IEC 170</td>
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<td>IEC 246</td>
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<tr>
<td>IEC 235</td>
<td>3</td>
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<tr>
<td>IEC 291</td>
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</table>

Total Credits: 33

Kentucky Child Care Provider - 1907093049

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

Available Completely Online

Required:

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>IEC 101</td>
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</tbody>
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Total Credits: 3

School Age Child Care - 1907093069

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

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<tr>
<td>IEC 101</td>
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<tr>
<td>IEC 250</td>
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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)

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<th>Course</th>
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<td>IVC 160</td>
<td>6</td>
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<tr>
<td>IVC 165</td>
<td>6</td>
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</tbody>
</table>

Total Credits: 44

Life Coach

The International Coach Federation (ICF) defines coaching as “partnering with clients in a thought-provoking and creative process that inspires them to maximize their personal and professional potential.” Coaches help clients develop a compelling vision of the future and an action plan to get there. Coaches use active listening, powerful questioning, and direct communication to enhance learning and address obstacles along the way. This program teaches students the ICF Code of Ethics and Core Competencies that are the standards for the coaching profession today. The Co-Active Coaching model and techniques are taught as part of this program. Students will engage in peer coaching with classmates to learn and practice the coaching competencies and develop their proficiency. A practicum experience provides the opportunity to begin coaching with clients in a workplace setting or as a solopreneur. The program includes five observed coaching sessions with feedback (with at least three having written feedback), and ten hours of mentoring focused on the ICF Core Competencies (seven hours in small group mentoring and three hours of individual mentoring). The program prepares students to apply for the Associate Certified Coach (ACC) credential with the ICF; however, there are additional requirements for the ACC such as passing the ICF Coach Knowledge Assessment (CKA). Visit https://coachfederation.org/icf-credential/acc-paths for more information.

Certificate

Life Coach – 1311013029

(Offered at )

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SDC 160</td>
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<tr>
<td>SDC 161</td>
<td>1</td>
</tr>
<tr>
<td>Written</td>
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<tr>
<td>Communication</td>
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<tr>
<td>Oral</td>
<td>3</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>Social Behavioral Science</td>
<td>3</td>
</tr>
<tr>
<td>Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>Stress Management</td>
<td>1</td>
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<td>Approved Technical Elective</td>
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Total Credits: 17-20

Choose one from the following approved technical support elective courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BAS 288</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>3</td>
</tr>
<tr>
<td>GEN 140</td>
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<td>KHP 230</td>
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<td>PSY 180</td>
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<td>PSY 185</td>
<td>3</td>
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<tr>
<td>SWK 275</td>
<td>3</td>
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</table>

Or other course suitable for student’s career goals as a life coach, with permission of program coordinator.

*General Education course: this course can count as a technical elective if not also selected for the Oral Communication or Social Behavioral Science course, above.

(One course cannot fulfill two different requirements.)
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</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics or Higher General Education</td>
<td>3</td>
</tr>
<tr>
<td>QRT 110</td>
<td>Quantitative Reasoning course</td>
<td>3</td>
</tr>
<tr>
<td>NAT 110</td>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>SOC 110</td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>ENG 121</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 122</td>
<td>Introduction to Interpersonal Communication</td>
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<td>Total Credits</td>
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**Technical or Support Courses**

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 165</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
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</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 101</td>
<td>Transportation</td>
<td>3</td>
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<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 180</td>
<td>Project Management OR</td>
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<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
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**Electives**

<table>
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<th>Credits</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics or Higher General Education</td>
<td>3</td>
</tr>
<tr>
<td>QRT 110</td>
<td>Quantitative Reasoning course</td>
<td>3</td>
</tr>
<tr>
<td>NAT 110</td>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>SOC 110</td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>ENG 121</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
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<tr>
<td>ENG 122</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
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</tbody>
</table>

*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; HZC)*

**General Education**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<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>
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<tr>
<td>MAT 170</td>
<td>Brief Calculus with Applications</td>
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</tr>
<tr>
<td>ENG 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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<td>MAT 155</td>
<td>Trigonometry</td>
<td>3</td>
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<tr>
<td>STA 220</td>
<td>Statistical Method OR</td>
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<td>MAT 170</td>
<td>Brief Calculus with Applications</td>
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<td>ENG 101</td>
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*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

**Certificates**

**International Logistics – 5202033049**  
*(Offered at WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
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<td>BAS 256</td>
<td>International Business</td>
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<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
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<tr>
<td>LOM 101</td>
<td>Transportation</td>
<td>3</td>
</tr>
<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
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<td>Total Credits</td>
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*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

* May include BAS, QMS, STA or Business and Industry approved courses.
### Core

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education OR</td>
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<tr>
<td>MFG 175</td>
<td>Lean Operations</td>
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<tr>
<td>ELT 110</td>
<td>Circuits</td>
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<td>ELT 201</td>
<td>Statics and Strengths of Materials</td>
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<td>BAS 289</td>
<td>Operations Management OR</td>
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<td>MFG 256</td>
<td>Production Management</td>
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<td>MFG 135</td>
<td>Fundamentals of Mechatronics</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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### Technical Electives

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<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
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<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership OR</td>
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<td>BRX 112</td>
<td>Blueprint Reading for Machinists OR</td>
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<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
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<td>COE 199</td>
<td>Cooperative Education</td>
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<td>CAD 102</td>
<td>Drafting Fundamentals OR</td>
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<td>CAD 112</td>
<td>Engineering Graphics</td>
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<td>Electrical Motor Controls I</td>
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<td>EET 271</td>
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<td>EET 272</td>
<td>Electrical Motor Controls II</td>
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<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
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<td>EET 276</td>
<td>Programmable Logic Controllers</td>
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<td>ELT 110</td>
<td>Circuits I</td>
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<td>ELT 114</td>
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<td>Robotics and Industrial Automation</td>
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<td>Voice &amp; Data Installer Level I</td>
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<td>FPX 100</td>
<td>Fluid Power</td>
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<td>Maintaining Industrial Equipment I</td>
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<tr>
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<td>CMM 112</td>
<td>Fundamentals of Machine Tool – B</td>
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<td>Metrology and Control Charts</td>
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<td>CMM 130</td>
<td>Manual Programming</td>
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<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC</td>
<td>3</td>
</tr>
<tr>
<td>MFG 256</td>
<td>Production Management</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 220</td>
<td>Quality Audits</td>
<td>3</td>
</tr>
<tr>
<td>QMS 240</td>
<td>Statistics for Quality I (if ST 291 is not taken in the core)</td>
<td>3</td>
</tr>
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<td><strong>Subtotal</strong></td>
<td><strong>63-67</strong></td>
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</tbody>
</table>

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

**Enhanced Operator I – 1506133129 (Offered at BLC, GTW)**

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>WPP 2001</td>
<td>Soft Skills</td>
<td>1</td>
</tr>
<tr>
<td>ISX 1001</td>
<td>Safety &amp; Universal Precaution</td>
<td>1</td>
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<tr>
<td>MFG 175</td>
<td>Lean Operations</td>
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<tr>
<td>IET 1206</td>
<td>Hand &amp; Power Tools</td>
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<td>IET 1304</td>
<td>Problem Solving</td>
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**Enhanced Operator II – 1506133139 (Offered at BLC, GTW)**

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<th>Course Name</th>
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<tr>
<td>BRX 120</td>
<td>Blueprint Reading for Machinists OR</td>
<td>4</td>
</tr>
<tr>
<td>BRX 125</td>
<td>Basic Blueprint Reading OR</td>
<td>3</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals OR</td>
<td>4</td>
</tr>
<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>CMM 118</td>
<td>Metrology and Control Charts</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 220</td>
<td>Quality Audits</td>
<td>3</td>
</tr>
<tr>
<td>STA 220</td>
<td>Statistics OR</td>
<td>3</td>
</tr>
<tr>
<td>QMS 240</td>
<td>Statistics for Quality I</td>
<td>3</td>
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Total Credits: 15-16

**Fundamentals of Mechatronics - 1500003219 (Offered at BSC, GTW)**

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<thead>
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<tbody>
<tr>
<td>MFG 135</td>
<td>Fundamentals of Mechatronics OR</td>
<td>6</td>
</tr>
<tr>
<td>MFG 125</td>
<td>Special Topics in Engineering Technology: Fundamentals of Mechatronics – A AND</td>
<td>3</td>
</tr>
<tr>
<td>MFG 130</td>
<td>Special Topics in Engineering Technology: Fundamentals of Mechatronics – B</td>
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**Integrated Manufacturing Technologies - 1506133069 (Offered at GTW)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>FPX 100</td>
<td>Fluid Power</td>
<td>3</td>
</tr>
<tr>
<td>FPX 101</td>
<td>Fluid Power Lab</td>
<td>3</td>
</tr>
<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment</td>
<td>3</td>
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<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment Lab</td>
<td>3</td>
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<tr>
<td>EET 110</td>
<td>Circuits I</td>
<td>5</td>
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<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment</td>
<td>3</td>
</tr>
<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment Lab</td>
<td>3</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls</td>
<td>2</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls</td>
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**Operations Management - 5202013369 (Offered at BSC, GTW)**

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<th>Course Name</th>
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<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
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<td><strong>Subtotal</strong></td>
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**Core**

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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
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<tr>
<td>BAS 287</td>
<td>Supervisory Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership OR</td>
<td>3</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MFG 135</td>
<td>Fundamentals of Mechatronics OR</td>
<td>6</td>
</tr>
<tr>
<td>MFG 125</td>
<td>Special Topics in Engineering Technology: Fundamentals of Mechatronics – A AND</td>
<td>3</td>
</tr>
<tr>
<td>MFG 130</td>
<td>Special Topics in Engineering Technology: Fundamentals of Mechatronics – B</td>
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Total Credits: 12

**Quality Control - 1506133049 (Offered at GTW)**

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<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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**General Education**

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<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
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<td><strong>Subtotal</strong></td>
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**Core**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BRX 112</td>
<td>Blueprint Reading for Machinists OR</td>
<td>4</td>
</tr>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading OR</td>
<td>3</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals OR</td>
<td>4</td>
</tr>
<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>CMM 118</td>
<td>Metrology and Control Charts</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 220</td>
<td>Quality Audits</td>
<td>3</td>
</tr>
<tr>
<td>STA 220</td>
<td>Statistics OR</td>
<td>3</td>
</tr>
<tr>
<td>QMS 240</td>
<td>Statistics for Quality I</td>
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<td><strong>15-16</strong></td>
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Total Credits: 15-16
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 different tracks within the Associate of Applied Science degree. A variety of certificates and diplomas serve as pathways to the AAS degree tracks or as meeting specific training needs.

Students enrolled in the Electrical Technology program are required to achieve a minimum grade of "C" in the technical core and in those courses selected as technical electives.

Associate in Applied Science

Electrical Technology - 4603027039

(Offered at BSC, BLC, ELC, GTW, HPC, MDC, OWC, SKY, WKC)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
<td>3</td>
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<tr>
<td>MAT 126</td>
<td>Technical Algebra &amp; Trigonometry OR Higher Level Quantitative Reasoning Course</td>
<td>3</td>
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<tr>
<td></td>
<td>Natural Sciences</td>
<td>3</td>
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<td></td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<td></td>
<td>Heritage/Humanities</td>
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<td></td>
<td>Oral Communications</td>
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Technical Core:

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<th>Title</th>
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<tbody>
<tr>
<td>EET 110</td>
<td>Circuits I OR Approved Course(s) from Specific Track Technical</td>
<td>5</td>
</tr>
<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
<td>4-5</td>
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<td>Elective List</td>
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<tr>
<td>EET 250</td>
<td>National Electric Code</td>
<td>4</td>
</tr>
<tr>
<td>EET 264</td>
<td>Rotating Machinery AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 265</td>
<td>Rotating Machinery Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>EET 268</td>
<td>Rotating Machinery and Electrical Motor Controls I AND</td>
<td>3</td>
</tr>
<tr>
<td>EET 269</td>
<td>Rotating Machinery and Electrical Motor Controls I Lab OR</td>
<td>4</td>
</tr>
<tr>
<td>EET 266</td>
<td>Rotating Machinery and Transformers AND</td>
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</tr>
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<td>EET 267</td>
<td>Rotating Machinery and Transformers Lab</td>
<td>3</td>
</tr>
<tr>
<td>EET 127</td>
<td>Electrical Capstone</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Digital Literacy OR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>If any student successfully tests out of Computer/Digital Literacy he/she must take an additional Technical Course approved by the Electrical Program Coordinator</td>
<td>(3)</td>
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</table>

NOTE: Digital Literacy must be demonstrated either by competency exam or by completing a digital literacy course.

Automated Industrial Controls Technician Track – 460302704

(Offered at)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II</td>
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<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers</td>
<td>2</td>
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<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
<td>2</td>
</tr>
<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>
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<tr>
<td>ELT 265</td>
<td>Applied Fluid Power</td>
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Total Credits 60-65

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for the Automated Industrial Controls Technician Track

<table>
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<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
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<tr>
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<td>All EET Prefix Courses</td>
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<tr>
<td>ETT</td>
<td>All ETT Prefix Courses</td>
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<tr>
<td>ACR</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 130</td>
<td>Electrical Components</td>
<td>3</td>
</tr>
<tr>
<td>ACR 131</td>
<td>Electrical Components Lab</td>
<td>2</td>
</tr>
<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist</td>
<td>2</td>
</tr>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>BRX 220</td>
<td>Basic Blueprint Reading for Construction</td>
<td>3</td>
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<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>CMM 114</td>
<td>Fundamentals of Machine Tools</td>
<td>6</td>
</tr>
<tr>
<td>ELT 103</td>
<td>Introduction to Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ELT 114</td>
<td>Circuits II</td>
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<td>Digital I</td>
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<td>ELT 210</td>
<td>Devices I</td>
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<td>ELT 214</td>
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<tr>
<td>ELT 220</td>
<td>Digital II</td>
<td>3</td>
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<tr>
<td>ELT 260</td>
<td>Robotics and Industrial Automation</td>
<td>5</td>
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<tr>
<td>ELT 265</td>
<td>Applied Fluid Power</td>
<td>3</td>
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<tr>
<td>ESP 101</td>
<td>Introduction to Energy Systems</td>
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<td>ISX 100</td>
<td>Industrial Safety</td>
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<td>Introduction to Industrial Safety</td>
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<td>WLD 140</td>
<td>Gas Metal Arc-Welding</td>
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<td>WLD 141</td>
<td>Gas Metal Arc-Welding Lab</td>
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<td>WLD 151</td>
<td>Basic Welding A</td>
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<td>WLD 152</td>
<td>Basic Welding B</td>
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Construction Electrician Track – 460302702

(Offered at BSC, BLC, ELC, GTW, HPC, MDC, OWC, WKC)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EET</td>
<td>Electrical Construction I AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
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<td>EET 252</td>
<td>Electrical Construction II AND</td>
<td>2</td>
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<td>EET 253</td>
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<td>EET 254</td>
<td>Electrical Construction AND</td>
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<td>EET 255</td>
<td>Electrical Construction Lab</td>
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Total Credits 60-64

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.
Technical Electives for Construction Electrician Track

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<td>Refrigeration Fundamentals</td>
<td>3</td>
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<td>EET 101</td>
<td>Refrigeration Fundamentals Lab</td>
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<td>ACR 130</td>
<td>Electrical Components</td>
<td>3</td>
</tr>
<tr>
<td>ACR 131</td>
<td>Electrical Components Lab</td>
<td>2</td>
</tr>
<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist</td>
<td>2</td>
</tr>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
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</tr>
<tr>
<td>BRX 220</td>
<td>Basic Blueprint Reading for Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>CMM 114</td>
<td>Fundamentals of Machine Tools</td>
<td>6</td>
</tr>
<tr>
<td>ELT 103</td>
<td>Introduction to Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ELT 114</td>
<td>Circuits II</td>
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<tr>
<td>ELT 120</td>
<td>Digital I</td>
<td>3</td>
</tr>
<tr>
<td>ELT 210</td>
<td>Devices I</td>
<td>4</td>
</tr>
<tr>
<td>ELT 214</td>
<td>Devices II</td>
<td>4</td>
</tr>
<tr>
<td>ELT 220</td>
<td>Digital II</td>
<td>3</td>
</tr>
<tr>
<td>ELT 260</td>
<td>Robotics and Industrial Automation</td>
<td>5</td>
</tr>
</tbody>
</table>

Technical Electives for Industrial Automation and Robotics Technician Track – 460302705

(Offered at)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISM 102</td>
<td>Fundamentals of Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>ISM 210</td>
<td>Fundamentals of Process Control</td>
<td>4</td>
</tr>
<tr>
<td>FPX 100</td>
<td>Fluid Power</td>
<td>3</td>
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<tr>
<td>FPX 101</td>
<td>Fluid Power Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II</td>
<td>2</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
<td>2</td>
</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>3</td>
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Subtotal 24

Total Credits 65-68

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Industrial Automation and Process Control Technician Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EET 103</td>
<td>Introduction to Engineering</td>
<td>3</td>
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<tr>
<td>ELT 110</td>
<td>Circuits I</td>
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<tr>
<td>ELT 114</td>
<td>Circuits II</td>
<td>5</td>
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<tr>
<td>ELT 120</td>
<td>Digital I</td>
<td>3</td>
</tr>
<tr>
<td>ELT 210</td>
<td>Devices I</td>
<td>4</td>
</tr>
<tr>
<td>ELT 214</td>
<td>Devices II</td>
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<tr>
<td>ELT 220</td>
<td>Digital II</td>
<td>3</td>
</tr>
<tr>
<td>ELT 260</td>
<td>Robotics and Industrial Automation</td>
<td>5</td>
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Technical Electives for Industrial Electrician Track - 460302701

(Offered at BSC, BLC, ELC, GTW, HPC, OWC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EET 154</td>
<td>Electrical Construction I AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 252</td>
<td>Electrical Construction II AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 253</td>
<td>Electrical Construction II Lab OR</td>
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</tr>
<tr>
<td>EET 254</td>
<td>Electrical Construction AND</td>
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<td>EET 255</td>
<td>Electrical Construction Lab</td>
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<td>EET 272</td>
<td>Electrical Motor Controls II</td>
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<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
<td>2</td>
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<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
<td>2</td>
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</tbody>
</table>

Subtotal 23-24

Total Credits 64-68

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Industrial Automation and Robotics Technician Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EET 290</td>
<td>Troubleshooting Industrial Controls and Motors</td>
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<tr>
<td>IMT 200</td>
<td>Industrial Robotics and Robotic Maintenance</td>
<td>4</td>
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<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II</td>
<td>2</td>
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<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
<td>2</td>
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Technical Electives for Industrial Electrician Track - 460302701

(Offered at)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
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<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
<td>2</td>
</tr>
<tr>
<td>IMT 200</td>
<td>Industrial Robotics and Robotic Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>3</td>
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<td>WLD 140</td>
<td>Gas Metal Arc Welding</td>
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<td>WLD 141</td>
<td>Gas Metal Arc Welding Lab</td>
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<tr>
<td>WLD 151</td>
<td>Basic Welding A</td>
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<td>WLD 152</td>
<td>Basic Welding B</td>
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</tbody>
</table>
Diploma

Electrical Technology - 4603024049

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

General Education:

Area 1

- Written Communication OR...........................................3
- Heritage/ Humanities OR....................................................3
- Oral Communications..........................................................3

Subtotal 6

Technical Core:

ELT 110 Circuits I OR .........................................................5
EET 119 Basic Electricity .......................................................5
Approved Course(s) from Specific Track Technical 4-5
Elective List

EET 250 National Electric Code .............................................4
EET 264 Rotating Machinery ..................................................2
EET 265 Rotating Machinery Lab ..........................................2
EET 270 Electrical Motor Controls I .....................................2
EET 271 Electrical Motor Controls I Lab OR .........................2
EET 268 Rotating Machinery and Electrical Motor Controls I AND (3)
EET 269 Rotating Machinery and Electrical Motor Controls II ..................................................
EET 266 Rotating Machinery and Transformers I OR ..........(4)
EET 267 Rotating Machinery and Transformers II Lab ............(3)
EET 127 Electrical Capstone .................................................1

Digital Literacy OR ..........................................................3
If any student successfully tests out of Digital Literacy he/she must take an additional Technical Course
approved by the Electrical Program Coordinator ............(3)

Subtotal 23-26

NOTE: Digital Literacy must be demonstrated either by competency exam or by completing a digital literacy course.

Automated Industrial Controls Technician Track – 460302404

(Offered at)

EET 272 Electrical Motor Controls II ...................................2
EET 273 Electrical Motor Controls II Lab ................................2
EET 277 Programmable Logic Controllers II .......................2
FPX 100 Fluid Power II ......................................................3
FPX 101 Fluid Power Lab II ................................................2
ELT 265 Applied Fluid Power .............................................(3)
Technical Electives ............................................................8

Subtotal 19-21

Total Credits 48-52

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Construction Electrician Track

EET All EET Prefix Courses
ETT All ETT Prefix Courses
IMT All IMT Prefix Courses
ACR 100 Refrigeration Fundamentals .............................3
ACR 101 Refrigeration Fundamentals Lab .........................2
ACR 130 Electrical Components ..................................3

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Automated Industrial Controls Technician Track

EET All EET Prefix Courses
ETT All ETT Prefix Courses
IMT All IMT Prefix Courses
ACR 100 Refrigeration Fundamentals ................................3
ACR 101 Refrigeration Fundamentals Lab ........................2
ACR 130 Electrical Components ..................................3

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Construction Electrician Track - 460302402

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

EET 154 Electrical Construction I AND ................................2
EET 155 Electrical Construction I Lab AND .........................2
EET 252 Electrical Construction II AND ..............................2
EET 253 Electrical Construction II Lab OR .........................2
EET 254 Electrical Construction AND (3)
EET 255 Electrical Construction Lab ..................................(4)
Technical Electives* .........................................................12

Subtotal 19-20

Total Credits 48-52

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.
Industrial Automation and Process Control Technician Track – 460302405

(Offered at)

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<tr>
<th>Course</th>
<th>Description</th>
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<tr>
<td>ESM 102</td>
<td>Fundamentals of Instrumentation</td>
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<td>Fundamentals of Process Control</td>
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<td>FPX 100</td>
<td>Fluid Power</td>
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<td>FPX 101</td>
<td>Fluid Power Lab</td>
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<td>EET 272</td>
<td>Electrical Motor Controls II</td>
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<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
<td>2</td>
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<td>EET 276</td>
<td>Programmable Logic Controllers</td>
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<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
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<td></td>
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Total Credits 53-56

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Industrial Automation and Process Control Technician Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EET 290</td>
<td>Troubleshooting Industrial Controls and Motors</td>
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<tr>
<td>IMT 200</td>
<td>Industrial Robotics and Robotic Maintenance</td>
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<td>EET 272</td>
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<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
<td>2</td>
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<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 277</td>
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</table>

Total Credits 53-56

Industrial Automation and Robotics Technician Track – 460302406

(Offered at)

<table>
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<tr>
<th>Course</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>EET 270</td>
<td>Troubleshooting Industrial Controls and Motors</td>
<td>2</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I</td>
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<td>EET 272</td>
<td>Electrical Motor Controls II</td>
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<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
<td>2</td>
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<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
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<tr>
<td><strong>Subtotal</strong></td>
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Total Credits 53-56

Industrial Electrician Track – 460302401

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
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</thead>
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<tr>
<td>EET 150</td>
<td>Transistors AND</td>
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<tr>
<td>EET 151</td>
<td>Transistors Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 264</td>
<td>Rotating Machinery AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 267</td>
<td>Rotating Machinery Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
<td>2</td>
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<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab AND</td>
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<td>EET 268</td>
<td>Rotating Machinery Electrical Motor Controls I AND</td>
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<td>EET 269</td>
<td>Rotating Machinery Electrical Motor Controls I Lab OR</td>
<td>(4)</td>
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<td>EET 266</td>
<td>Rotating Machinery and Transformers AND</td>
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<tr>
<td>EET 267</td>
<td>Rotating Machinery and Transformers Lab</td>
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<td>Technical Electives</td>
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<tr>
<td><strong>Subtotal</strong></td>
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<td>27-30</td>
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Total Credits 27-30

Certificates

Electrical Construction - 4603023029

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

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>EET 110</td>
<td>Circuits I OR</td>
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<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
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<td>EET 250</td>
<td>National Electric Code</td>
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<td>EET 154</td>
<td>Electrical Construction I AND</td>
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<td>EET 155</td>
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<td>EET 252</td>
<td>Electrical Construction II AND</td>
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</tr>
<tr>
<td>EET 253</td>
<td>Electrical Construction II Lab OR</td>
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<tr>
<td>EET 254</td>
<td>Electrical Construction AND</td>
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<tr>
<td>EET 255</td>
<td>Electrical Construction Lab</td>
<td>4</td>
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<td>EET 265</td>
<td>Rotating Machinery Lab OR</td>
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<td>EET 264</td>
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<td>EET 265</td>
<td>Rotating Machinery Lab AND</td>
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<td>Electrical Motor Controls I AND</td>
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<td>Rotating Machinery and Transformers AND</td>
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Total Credits 27-30

173
Technical Electives for Electrical Construction Certificate

EET  All EET Prefix Courses
ACR 100 Refrigeration Fundamentals 3
ACR 101 Refrigeration Fundamentals Lab 2
ACR 130 Electrical Components 3
ACR 131 Electrical Components Lab 2
BRX 110 Basic Blueprint Reading for Machinist 2
BRX 120 Basic Blueprint Reading 3
BRX 220 Basic Blueprint Reading for Construction 3
CAD 100 Introduction to Computer Aided Design 3
CMM 114 Fundamentals of Machine Tools 5
ELT 103 Introduction to Engineering 3
ELT 110 Circuits I 5
ELT 114 Circuits II 5
ELT 120 Digital I 3
ELT 210 Devices I 4
ELT 214 Devices II 4
ELT 220 Digital II 3
ELT 260 Robotics and Industrial Automation 5
ELT 265 Applied Fluid Power 3
ESP 101 Introduction to Energy Systems 3
FPX 100 Fluid Power 3
FPX 101 Fluid Power Lab 2
ISX 100 Industrial Safety 3
ISX 101 Introduction to Industrial Safety 3

Electrical Motor Control Level I - 4603023079
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

ELT 110 Circuits I OR 5
EET 119 Basic Electricity 3

Total Credits 18-20

Technical Electives for Electrical Trainee Level I and II

EET  All EET Prefix Courses
EETT All EETT Prefix Courses
IMT All IMT Prefix Courses
ACR 100 Refrigeration Fundamentals 3
ACR 101 Refrigeration Fundamentals Lab 2
ACR 130 Electrical Components 3
ACR 131 Electrical Components Lab 2
BRX 110 Basic Blueprint Reading for Machinist 2
BRX 120 Basic Blueprint Reading 3
BRX 220 Basic Blueprint Reading for Construction 3
CAD 100 Introduction to Computer Aided Design 3
CMM 114 Fundamentals of Machine Tools 6
ELT 103 Introduction to Engineering 3
ELT 110 Circuits I 5
ELT 114 Circuits II 5
ELT 120 Digital I 3
ELT 210 Devices I 4
ELT 214 Devices II 4
ELT 220 Digital II 3
ELT 260 Robotics and Industrial Automation 5
ELT 265 Applied Fluid Power 3
ESP 101 Introduction to Energy Systems 3
FPX 100 Fluid Power 3
FPX 101 Fluid Power Lab 2
ISX 100 Industrial Safety 3
ISX 101 Introduction to Industrial Safety 3
WLD 140 Gas Metal Arc Welding 2
WLD 141 Gas Metal Arc Welding Lab 3
WLD 151 Basic Welding A 2
WLD 152 Basic Welding B 5

Residential Electricity Level I - 4603023049
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

ELT 110 Circuits I OR 5
EET 119 Basic Electricity 3
EET 154 Electrical Construction I 2
EET 155 Electrical Construction I Lab 2
EET 254 Electrical Construction AND 3
EET 255 Electrical Construction Lab 4

Total Credits 14-17
ETT 118 Residential Network Wiring

EET 253 Electrical Construction II Lab

EET 252 Electrical Construction II AND

EET 253 Electrical Construction II Lab OR

EET 254 Electrical Construction AND

EET 256 Electrical Construction Lab

EET 250 National Electrical Code

Technical Electives

Total Credits 21-22

Voice and Data Wiring Technician - 4603023119
(Offers at BLC, GTW, HPC, SMC)

ETT 120 Project Management .................................................. 3
ETT 122 Voice and Data Installer Technician ............................... 3
ETT 123 Voice and Data Installer Technician Lab .......................... 2
ETT 116 Fiber Optics Systems ................................................... 3
ETT 199 Cooperative Education for Voice and Data Wiring Technicians .................................................. 3

Total Credits 14

MIT: Industrial Maintenance Technology

Advanced Manufacturing Technician Track

Advanced Manufacturing requires demonstrating multiple skills and competencies. Students accepted into this program gain valuable workplace experience, working three (3) days in a manufacturing environment and two (2) days on campus in a manufacturing-based classroom. Critical conceptual components of the track include embedded Safety Culture, Workplace Organization (SS), Lean Manufacturing, Problem Solving and Maintenance Reliability, coupled with Personal Behavior development (Attendance, Communication, Diligence, Teamwork, Initiative, and Interpersonal Relations) within the program pathway. Successful students apply learned skills throughout the program in the campus classroom, campus laboratory and manufacturing workplace. The advanced manufacturing technician (AMT) track develops multiple skills within the industrial maintenance pathway for manufacturing employers.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade “C” or better in all courses and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Advanced Manufacturing Tool and Die Technician Track

The Advanced Manufacturing Tool and Die Technician Track is a program designed to provide a student with a well-rounded skill set that is needed to obtain a career in the advanced manufacturing industry sector. This apprenticeship style program provides the students the opportunity to work in an advanced manufacturing environment and learn in an advanced manufacturing-based classroom setting. Graduates from this program will have been introduced to critical maintenance skills, positive safety practices, and manufacturing core exercises with an emphasis on the knowledge needed to gain employment in the presswork and die maintenance field.

Progression in the Advanced Manufacturing Tool and Die Technician Track is contingent upon achievement of a grade “C” or better in all courses and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

AMTEC Track

This program affords students the opportunity to achieve an understanding of the advanced skills needed to obtain a successful career in a constantly changing and globally competitive workforce. Students are trained in the multi-skilled maintenance trade with an emphasis on those skills needed in automotive industrial facilities.

Progression in the Industrial Maintenance AMTEC track is contingent upon achievement of a grade “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).
Industrial Maintenance Track:

An understanding of the requirements and opportunities in maintenance, good safety practices, pride in workmanship, and an understanding of the principles and accepted practices of the maintenance trade are covered in this program. Students are trained to hold positions in factories, hospitals, hotels, etc., where multi-skilled maintenance personnel are needed. Included are courses in air conditioning, carpentry, electricity, machine tool, metal fabrication, and welding.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Industrial Maintenance Technology - 4703037019

(Offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SKY, SMC, WKY)

General Education Core:

<table>
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<tr>
<th>Course</th>
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Advanced Manufacturing Technician Track- 470303702

(Offered at ASC, BSC, BLC, GTW, HPC, JFC, OWC, SKY, SMC, WKY)

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Technical Electives:

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Total Credits 62-66

*Note: Only Integrated Engineering Technology (IET) courses are approved for substitution into the Advanced Manufacturing Technician Track.

*Note: Minimum of 1,824 hours of Industry Sponsored Internship.

Automotive Manufacturing Technical Education Collaborative (AMTEC) Track- 470303703

(Offered at BSC, BLC, ELC, HPC, JFC, OWC, SMC)

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<td>IMT 265</td>
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Technical Electives:

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Total Credits 62-66

*Note: Only Integrated Engineering Technology (IET) courses are approved for substitution into the Automotive Manufacturing Technician Track.

*Note: Minimum of 1,824 hours of Industry Sponsored Internship.
Technical Core:

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<td>Industrial Maintenance Electrical Principles AND</td>
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Subtotal 29-37

Technical Electives:

Thirteen (13) 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 13

Total Credits 60-68

Approved Technical Electives List*:

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Technical Core:

- Digital Literacy ........................................................................................................ 0-3
- BRX 120 Basic Blueprint Reading OR ................................................................. 3
- BRX 110 Basic Blueprint Reading for Machinist OR ........................................ (2)
- ELT 102 Blueprint Reading ..................................................................................... (2)
- FPX 100 Fluid Power AND ..................................................................................... 3
- FPX 101 Fluid Power Lab ......................................................................................... 2
- ELT 265 Applied Fluid Power .................................................................................. (3)
- IMT 110 Industrial Maintenance Electrical Principles AND ................................ 3
- IMT 111 Industrial Maintenance Electrical Principles Lab OR ................................ 2
- ELT 110 Circuits I OR ............................................................................................. (5)
- EET 119 Basic Electricity ......................................................................................... (5)
- IMT 150 Maintaining Industrial Equipment IAND .............................................. 3
- IMT 151 Maintaining Industrial Equipment I Lab .................................................. 2
- IMT 220 Industrial Maintenance Electrical Motor Controls I AND .................... 3
- IMT 221 Industrial Maintenance Electrical Motor Controls I Lab OR ................. 2
- EET 270 Electrical Motor Controls IAND ............................................................. (2)
- EET 271 Electrical Motor Controls I Lab OR ......................................................... (2)
- ELT 244 Electrical Machinery and Controls OR .................................................. (4)
- IMT 120 Industrial Maintenance Rotating Machinery AND ................................ (3)
- IMT 121 Industrial Maintenance Rotating Machinery Lab OR ................................ (2)
- EET 264 Rotating Machinery AND ......................................................................... (2)
- EET 265 Rotating Machinery Lab ........................................................................... (2)
- IMT 150 Advanced Programmable Logic Controllers ....................................... 3
- IMT 281 Advanced Programmable Logic Controllers Lab .................................. 2
- IMT 280 Advanced Programmable Logic Controllers ......................................... 3
- IMT 289 Industrial Maintenance Technology Capstone ....................................... 1
- IMT 290 Special Problems ....................................................................................... 1
- ISM 102 Fundamental of Instrumentation ............................................................... 4
- ISM 210 Fundamental of Process Control .............................................................. 4
- ISX 100 Industrial Safety ......................................................................................... 3
- ISX 101 Introduction to Industrial Safety ................................................................. 3
- MFG 265 Robotics and Industrial Automation ....................................................... 2
- 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
- MST 206 Electro-hydraulics .................................................................................... 3
- MST 207 Electro-hydraulics Lab ............................................................................. 2
- PEB 150 Plumbing, Introduction to the Trade .......................................................... 3
- PEB 151 Basic Plumbing Skills ................................................................................ 3
- PHS 175 Applied Physics ......................................................................................... 6
- PHX 150 Introductory Physics .................................................................................. 3
- PMX 100 Precision Measurement ........................................................................... 3
- WLD 100 Oxy-Fuel Systems .................................................................................... 2
- WLD 101 Oxy-Fuel Systems Lab ............................................................................. 2
- WLD 120 Shielded Metal Arc-Welding ................................................................. 2
- WLD 121 Shielded Metal Arc-Welding Lab ............................................................ 2
- WLD 123 Shielded Metal Arc-Welding Groove Welds with Backing Lab ............ 3
- WLD 130 Gas Tungsten Arc-Welding .................................................................... 2
- WLD 131 Gas Tungsten Arc-Welding Fillet Lab ..................................................... 3
- WLD 133 Gas Tungsten Arc-Welding Groove Lab .................................................. 3
- WLD 140 Gas Metal Arc-Welding ............................................................................ 2
- WLD 141 Gas Metal Arc-Welding Fillet Lab ........................................................... 3
- WLD 143 Gas Metal Arc-Welding Groove Lab ....................................................... 3
- WLD 145 Gas Metal Arc-Welding Aluminum Lab .................................................. 1
- WLD 151 Basic Welding A ....................................................................................... 2
- WLD 152 Basic Welding B ....................................................................................... 5
- WLD 170 Blueprint Reading for Welding ................................................................. 2
- WLD 171 Blueprint Reading/Welding Lab ............................................................... 3
- WLD 220 Welding Certification .............................................................................. 2
- WLD 221 Welding Certification Lab ........................................................................ 3
- WPP 200 Workplace Principles ............................................................................. 3

General Education:

Area 1 =

- Written Communication, Oral Communications, or Heritage/Humanities ............. 3

Subtotal 6

Area 2 =

- MAT 116 Technical Mathematics OR Higher ....................................................... 3

Subtotal 9-11

Technical Electives:

Fifteen (15) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.

Subtotal 15

Total Credits 50-58
Industrial Maintenance Machinists Mechanic - 4703033119
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

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<td>Blueprint Reading</td>
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Total Credits: 19-21

Industrial Maintenance Mechanic Level I - 4703033139
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

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Total Credits: 13-15

Industrial Maintenance Mechanic Level II - 4703033149
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

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<td>EET 110</td>
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Total Credits: 13-15

Industrial Maintenance Electrical Mechanic - 4703033159
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

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Total Credits: 22-26

Certificates

Chemical Operator - 4703033179
(Offered at MYC, WKC)

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<td>ITE 250</td>
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<td>ISX 100</td>
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<td>PHX 150</td>
<td>Introduction to Physics</td>
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<td>Introduction to Quality Systems</td>
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Total Credits: 27-30

Electro-hydraulic Technician - 4703033169
(Offered at BLC, HPC, JFC, MYC, OWC, SMC)

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Total Credits: 13-15

Fluid Power Mechanic - 4703033129
(Offered at BLC, BSC, HEC, HPC, OWC, SMC, WKC)

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Total Credits: 8-10

Industrial Maintenance Electrical Mechanic - 4703033159
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

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<td>EET 265</td>
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<td>IMT 111</td>
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Total Credits: 12-15
### Industrial Maintenance Robotics Technician – 4703033239
(Offered at BSC, BLC, ELC, GTW, HPC, JFC, MYC, SKY, SMC/WKC)

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### Presswork and Die Maintenance Technician Level I – 4703033209
(Offered at OWC, SMC)

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### Presswork and Die Maintenance Technician Level II – 4703033219
(Offered at OWC, SMC)

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<td>Industrial Maintenance Electrical Principles Lab</td>
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</tr>
<tr>
<td>IMT 220</td>
<td>Industrial Maintenance Electrical Motor Controls I</td>
<td>3</td>
</tr>
<tr>
<td>IMT 221</td>
<td>Industrial Maintenance Electrical Motor Controls I Lab</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>34</strong></td>
</tr>
</tbody>
</table>

### Marine Technology

The Marine Technology curriculum is designed to provide a strong theoretical base for employees of the inland marine industry. The program introduces students to basic inland marine principles and concepts by applying contemporary skills in a variety of employment positions based on industry needs. It provides students with a strong foundation of managerial and operational knowledge by using a problem-solving approach in state-of-the-art classroom and work experience environments. It builds leadership, management, communication skills, and professional ethics, which serve as a foundation for future development and career success. The program contains core technical courses and advanced courses in each track to address the employment needs of the domestic market.

### Associate in Applied Science

#### Marine Technology – 4903997019
(Offered at ASC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics or Higher Level Quantitative Reasoning Course</td>
<td>3</td>
</tr>
<tr>
<td>GEN 140</td>
<td>Development of Leadership</td>
<td>3</td>
</tr>
<tr>
<td>Naturals Sciences</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>History/ Humanities</td>
<td></td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
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</tr>
</tbody>
</table>

#### 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
| **Subtotal** | **27-30** | |

#### Marine Culinary Management Track – 4903997005
(Offered at ASC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<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 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts</td>
<td>2</td>
</tr>
<tr>
<td>CUL 125</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 230</td>
<td>Basic Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>MRN 208</td>
<td>Inland River Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Track Subtotal</strong></td>
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</tr>
<tr>
<td><strong>Track Total</strong></td>
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#### Marine Engineering Track – 490399702
(Offered at ASC, WKC)

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>MRN 204</td>
<td>Marine Electrical Systems</td>
<td>5</td>
</tr>
<tr>
<td>MRN 206</td>
<td>Marine Diesel</td>
<td>5</td>
</tr>
<tr>
<td>MRN 212</td>
<td>Marine Fluid Systems</td>
<td>5</td>
</tr>
<tr>
<td>MRN 214</td>
<td>Marine Refrigeration Systems</td>
<td>4</td>
</tr>
<tr>
<td><strong>Track Subtotal</strong></td>
<td></td>
<td><strong>19</strong></td>
</tr>
<tr>
<td><strong>Track Total</strong></td>
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<td><strong>61-64</strong></td>
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### Marine Logistics Operations Track – 490399703
*(Offered at ASC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<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>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MRN 208</td>
<td>Inland River Systems</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 101</td>
<td>Transportation</td>
<td>3</td>
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<td><strong>Track Subtotal</strong></td>
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<td><strong>18</strong></td>
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<td><strong>Track Total</strong></td>
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### Wheelhouse Management Track – 490399701
*(Offered at ASC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<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>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<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>
<tr>
<td>MRN 202</td>
<td>Piloting and Navigation</td>
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<tr>
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### Certificates

#### Marine Culinary – 4903993039
*(Offered at ASC, WKC)*

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts</td>
<td>0-3</td>
</tr>
<tr>
<td>CUL 125</td>
<td>Sanitation and Safety</td>
<td>2</td>
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<tr>
<td>CUL 230</td>
<td>Basic Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>MRN 208</td>
<td>Introduction to Marine Technology</td>
<td>3</td>
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#### Marine Engineering – 4903993049
*(Offered at ASC, WKC)*

<table>
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<tbody>
<tr>
<td>MRN 203</td>
<td>Environmental Protection Rules</td>
<td>3</td>
</tr>
<tr>
<td>MRN 204</td>
<td>Marine Electrical Systems</td>
<td>5</td>
</tr>
<tr>
<td>MRN 206</td>
<td>Marine Diesel</td>
<td>5</td>
</tr>
<tr>
<td>MRN 212</td>
<td>Marine Fluid Systems</td>
<td>5</td>
</tr>
<tr>
<td>MRN 214</td>
<td>Marine Refrigeration Systems</td>
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<tr>
<td><strong>Total</strong></td>
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#### Marine Industry - 4903993029
*(Offered at ASC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>MRN 100</td>
<td>Introduction to Marine Technology</td>
<td>3</td>
</tr>
<tr>
<td>MRN 101</td>
<td>Anatomy of a Towboat</td>
<td>3</td>
</tr>
<tr>
<td>MRN 102</td>
<td>Basic Marine Safety</td>
<td>3</td>
</tr>
<tr>
<td>MRN 103</td>
<td>Applied Marine Weather</td>
<td>3</td>
</tr>
<tr>
<td>MRN 104</td>
<td>Marine Crew Wellness</td>
<td>3</td>
</tr>
<tr>
<td>MRN 203</td>
<td>Environmental Protection Rules</td>
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#### Marine Technology Business – 4903993019
*(Offered at ASC, WKC)*

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 101</td>
<td>Transportation</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>18-21</strong></td>
</tr>
</tbody>
</table>

### 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)*

**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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
<td>3</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety OR</td>
<td>3</td>
</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>MSY 105</td>
<td>Introductory Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MSY 115</td>
<td>Intermediate Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MSY 199</td>
<td>Cooperative Education OR</td>
<td>3</td>
</tr>
<tr>
<td>MSY 198</td>
<td>Practicum</td>
<td>3</td>
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<tr>
<td>MSY 205</td>
<td>Advanced Masonry</td>
<td>3</td>
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<tr>
<td>MSY 215</td>
<td>Masonry Lab</td>
<td>3</td>
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<tr>
<td>MSY 225</td>
<td>Brick Construction</td>
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<tr>
<td>MSY 235</td>
<td>Special Techniques in Brick Construction</td>
<td>3</td>
</tr>
<tr>
<td>MSY 245</td>
<td>Anchors and Reinforcement</td>
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<tr>
<td>MSY 259</td>
<td>Special Techniques in Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MSY 299</td>
<td>Cooperative Education OR</td>
<td>3</td>
</tr>
<tr>
<td>MSY 298</td>
<td>Practicum*</td>
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<tr>
<td><strong>Technical Electives</strong></td>
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<td><strong>Subtotal</strong></td>
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#### Technical Electives

<table>
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<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>MSY 251</td>
<td>Concrete Finishing</td>
<td>3</td>
</tr>
<tr>
<td>MSY 253</td>
<td>Masonry Floors and Steps</td>
<td>3</td>
</tr>
<tr>
<td>MSY 255</td>
<td>Glass Blocks and Tile</td>
<td>3</td>
</tr>
<tr>
<td>MSY 257</td>
<td>Stone</td>
<td>3</td>
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#### Electives (Optional):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MSY 291</td>
<td>Special Problems III</td>
<td>3</td>
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</table>

### Certificates

#### Bricklayer Helper - 4601013029
*(Offered at BLC, BSC, JFC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISX 100</td>
<td>Industrial Safety OR</td>
<td>3</td>
</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>MSY 105</td>
<td>Introductory Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MSY 215</td>
<td>Masonry Lab</td>
<td>3</td>
</tr>
<tr>
<td>MSY 291</td>
<td>Special Problems III</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>12</strong></td>
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</table>
The Massage Therapy Certificate Program will train Massage Therapists in techniques ranging from entry level Swedish Massage, for its therapeutic and relaxation benefits, through advanced clinical massage (sports and orthopedic massage) for the specific needs of athletes and to aid in recovery and rehabilitation from illness, injury and surgery. Using medical models, therapists will have expanded knowledge in Anatomy and Physiology, Kinesiology and Medical Terminology. Other modalities are introduced to the Massage Therapist’s education to enhance their skills and knowledge. Business education is included in the program to assist therapists in the operation of a private practice.

CPR requirements must be successfully completed prior to enrolling in MSG 232, Advanced Clinical Massage I. The course must be Professional or Healthcare Provider. Completion of CPR 100 meets program requirements.
**Mechatronic Systems**

A Mechatronic Systems Operating Technician will function as a well-grounded machine operator in a complex system, with responsibility for efficient operation of the equipment with minimal down-times.

**Certificate**

**Mechatronic Systems Operating Technician - 1504033119**

(Offered at JFC, SKY, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MES 110</td>
<td>Mechatronic Systems Electrical Components</td>
<td>4</td>
</tr>
<tr>
<td>MES 120</td>
<td>Mechatronic Systems Mechanical Components</td>
<td>4</td>
</tr>
<tr>
<td>MES 130</td>
<td>Mechatronic Systems Hydraulic / Pneumatic Components</td>
<td>4</td>
</tr>
<tr>
<td>MES 150</td>
<td>Mechatronic Systems Programmable Controllers</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Medical Administrative Services**

**Certificate**

**Medical Coding and Reimbursement Specialist - 5107133029**

(Offered at JFC, SKY)

The Medical Coding and Reimbursement Specialist program insures that medical services are correctly identified on insurance claim forms. The individual codes the diagnoses and procedures performed, submits claim forms, researches and corrects insurance claim rejections. This program prepares graduates to file insurance forms for reimbursement and to code properly using the ICD, CPT and the HCPCS codes for patient diagnoses and procedures. Students are provided with an in-depth knowledge of medical terminology, anatomy, and coding procedures.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AHS 109</td>
<td>Introduction to Body Structure and Functions OR</td>
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</tr>
<tr>
<td>BIO 130</td>
<td>Aspects of Human Biology OR</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy 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>AHS 115</td>
<td>Medical Terminology OR</td>
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</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
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</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
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</tr>
<tr>
<td>MIT 204</td>
<td>Medical Coding AND</td>
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</tr>
<tr>
<td>MBS 100</td>
<td>Introduction to the Health Care Field OR</td>
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<tr>
<td>HIT 100</td>
<td>Introduction to Healthcare Delivery Systems</td>
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<td>MBS 110</td>
<td>Medical Insurance and Claims Processing</td>
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<tr>
<td>MBS 120</td>
<td>Coding for Reimbursement OR</td>
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<tr>
<td>MIT 205</td>
<td>Advanced Medical Coding</td>
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<tr>
<td>MBS 199</td>
<td>Internship</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>23-38</strong></td>
</tr>
</tbody>
</table>

**Medical Assisting**

A medical assistant is an integral member of the health care delivery team, qualified by education and experience to work in the administrative office, the examining room and the physician’s laboratory. Individuals in this unique position will be involved in many of the following skills:

**General:** project a professional manner and image, adhere to legal and ethical principles, use medical terminology effectively, and use effective and correct verbal and written communication.

**Administrative:** schedule, coordinate and monitor appointments, perform telephone and written communications, arrange hospital admissions, manage medical records, process insurance claim forms, manage office financial records, and maintain inventory.

**Clinical:** prepare patient for examination procedures and treatment, record medical histories, take vital signs, chart patient information, administer medications and injections, provide patient instruction and education, perform venipunctures, collect and prepare other specimens, perform electrocardiograms (ECG), sterilize instruments, and perform basic laboratory tests.

With additional education, the medical assisting graduate may perform limited radiography.

The Medical Assistant is a vital liaison between the doctor and patient and plays an important role in diagnosis and treatment. The many different roles assumed in this profession assure a fast moving and challenging career.

Progression in the Medical Assisting program is contingent upon achievement of a grade of “C” or above in each required course and maintenance of a 2.0 cumulative grade-point average or above (on a 4.0 scale).

Clinical orientation and externship are “non-paid work assignments.” CPR requirements must be successfully completed prior to enrolling in the first clinical externship and must be kept current throughout the program.

Transportation to the physician’s offices/community agencies is the responsibility of each student.

According to the Commission on Accreditation of Allied Health Education Programs (CAAHEP), all accredited medical assisting program related courses must be taught by approved faculty and meet the requirements according to CAAHEP standards and guidelines.

The Medical Assisting programs at the colleges listed below are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) on the recommendation of the Medical Assisting Education Review Board (MAERB).

**Commission on Accreditation of Allied Health Education Programs**

25400 US Highway 19 North, Suite 158
Clearwater, FL 33756,
727/210-2350
www.caahep.org

Bluegrass CTC (AAS and Diploma), Henderson CC (AAS), Jefferson CTC (Diploma), and Maysville CTC - Maysville & Rowan Campuses (Diploma).

**Associate in Applied Science**

**Medical Assisting - 5108017029**

(Offered at BLC, GTW, HEC, HPC, HZC, JFC, OWC)

**Required General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>Mathematics for Business OR</td>
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<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
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<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
<td>(3)</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
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</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
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<td>PSY 110</td>
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<td>ENG 101</td>
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<td><strong>Subtotal</strong></td>
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</table>
Additional Suggested General Education Courses (Not Required)
ENG 102 Writing II .................................. (3)
COM 181 Basic Public Speaking OR ................. (3)
COM 252 Introduction to Interpersonal Communications ... (3)

Support Classes
AHS 115 Medical Terminology OR ................. 3
CLA 131 Medical Terminology from Greek and Latin OR ... (3)
MIT 103 Medical Office Terminology .................. (3)
CPR 100 CPR for Health Care Professionals OR ....... 1
KHP 190 First Aid and Emergency Care ............. (2)
Digital Literacy ......................................... 3
Subtotal 7-8

NOTE: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

Core Courses
MAI 105 Introduction to Medical Assisting ............ 3
MAI 120 Medical Assisting Laboratory Techniques I ..... 3
MAI 140 Medical Assisting Clinical Procedures I ....... 4
MAI 150 Medical Assisting Administrative Procedures I OR ..... 3
MIT 217 Medical Office Procedures ...................... (3)
MIT 170 Dosage Calculations ................................ 2
MAI 200 Pathophysiology for the Medical Assistant ..... 3
MAI 220 Medical Assisting Laboratory Techniques II ..... 3
MAI 230 Medical Insurance OR ......................... 3
MIT 104 Introduction to Medical Insurance .............. (3)
MAI 240 Medical Assisting Clinical Procedures II ....... 4
MAI 250 Medical Assisting Administrative Procedures II OR ... 3
MIT 227 Medical Office Software ........................ (3)
MAI 270 Pharmacology for the Medical Assistant ...... 3
MAI 289 Medical Assisting Assessment Preparation .... 1-2
MAI 281 Medical Assisting Practicum ................... 1
MAI 284 Medical Assisting Externship .................. 2-3
Subtotal 38-40

Total Credits 61-68

Elective List:
OST 100 Keyboarding .................................. (1)
MAI 260 Medical Transcription ......................... (3)
MAI 299 Selected Topics: Medical Assisting: (Topic) ...... (1-4)

Diploma
Medical Assisting - 5108014020
(Offered at BLH, GTW, HEC, HPC, JFC, MYC)

General Education:
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)
ENG 101 Writing I OR .................................. 3
TEC 200 Technical Communications ...................... (3)
Subtotal 7-11

Support Courses
AHS 115 Medical Terminology OR ...................... 3
CLA 131 Medical Terminology from Greek and Latin OR ... (3)
MIT 103 Medical Office Terminology ..................... (3)
CPR 100 CPR for Health Care Professionals OR ............ 1
KHP 190 First Aid and Emergency Care .................. (2)
Digital Literacy ......................................... 3
Subtotal 7-8

NOTE: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

Core Courses
MAI 105 Introduction to Medical Assisting ............ 3
MAI 120 Medical Assisting Laboratory Techniques I ..... 3
MAI 140 Medical Assisting Clinical Procedures I ....... 4
MAI 150 Medical Assisting Administrative Procedures I OR ...... 3
MIT 217 Medical Office Procedures ......................... (3)
MAI 170 Dosage Calculations ................................ 2
MAI 200 Pathophysiology for the Medical Assistant ..... 3
MAI 220 Medical Assisting Laboratory Techniques II ..... 3
MAI 230 Medical Insurance OR ......................... 3
MIT 104 Introduction to Medical Insurance .............. (3)
MAI 240 Medical Assisting Clinical Procedures II ....... 4
MAI 250 Medical Assisting Administrative Procedures II OR ... 3
MIT 227 Medical Office Software ........................ (3)
MAI 270 Pharmacology for the Medical Assistant ...... 3
MAI 289 Medical Assisting Assessment Preparation .... 1-2
Subtotal 38-40

Total Credits 52-59

Elective Courses:
OST 100 Keyboarding .................................. (1)
MAI 260 Medical Transcription ......................... (3)
MAI 299 Selected Topics: Medical Assisting: (Topic) ...... (1-4)

Certificates
Electrocardiograph Technician - 5108013189
(Offered at BLH, HEC, HPC, JFC, MYC)
AHS 115 Medical Terminology OR ...................... 3
CLA 131 Medical Terminology from Greek and Latin OR ... (3)
MIT 103 Medical Office Terminology ..................... (3)
BIO 135 Basic Anatomy and Physiology with Laboratory OR .... 4
BIO 137 Human Anatomy & Physiology I AND ............ (4)
BIO 139 Human Anatomy & Physiology II .................. (4)
CPR 100 CPR for Healthcare Professionals OR ............ 1
KHP 190 First Aid and Emergency Care .................. (2)
MAI 140 Medical Assisting Clinical Procedures I OR ....... 4
MAI 240 Medical Assisting Clinical Procedures II ....... 4
MAI 281 Medical Assisting Practicum ..................... 1
Subtotal 17-22

NOTE: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

Medical Office Administrative Assistant - 5108013069
(Offered at BLH, HEC, HPC, JFC, MYC, OWC, SEC, SM)
AHS 115 Medical Terminology OR ...................... 3
CLA 131 Medical Terminology from Greek and Latin OR ... (3)
MIT 103 Medical Office Terminology ..................... (3)
BIO 135 Basic Anatomy and Physiology with Laboratory OR .... 4
BIO 137 Human Anatomy & Physiology I AND ............ (4)
BIO 139 Human Anatomy & Physiology II .................. (4)
MAI 105 Introduction to Medical Assisting ............ 3
MAI 150 Medical Assisting Administrative Procedures I OR ...... 3
MIT 217 Medical Office Procedures ......................... (3)
MAI 250 Medical Assisting Administrative Procedures II OR ... 3
MIT 227 Medical Office Software ........................ (3)
MAI 281 Medical Assisting Practicum ..................... 1
Digital Literacy ......................................... 3
Subtotal 20-24

Total Credits 20-24
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, Jefferson Community and Technical College, Madisonville Community College, Maysville Community and Technical College, Somerset Community College, Southeast Kentucky Community and Technical College, and West Kentucky Community and Technical College.

All program graduates take the national board exam, called the Board of Certification of the American Society of Clinical Pathology, after having met their academic and laboratory educational requirements. If successful, graduates may then use the initials “MLT (ASCP)” indicating proficiency in laboratory medicine.

Associate in Applied Science

Medical Laboratory Technician - 5110047049
(Offered at JFC, JFC, MDC, MYC, SEC, SMC, WKC)

General Education Courses:

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<tr>
<th>Course</th>
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<tr>
<td>MAT 110 Applied Mathematics OR</td>
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<tr>
<td>BIO 135 Basic Anatomy &amp; Physiology with Laboratory*</td>
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<td>MAI 112 Urinalysis</td>
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<tr>
<td>MLT 115 Serology</td>
<td>2</td>
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<tr>
<td>MLT 215 Hematology I AND</td>
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<td>MLT 217 Fundamentals of Hematology AND</td>
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<td>MLT 218 Clinical Hematology</td>
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<tr>
<td>MLT 225 Immunohematology I AND</td>
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<tr>
<td>MLT 226 Immunohematology II OR</td>
<td>2</td>
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<tr>
<td>MLT 227 Immunohematology</td>
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*BE 135 & BIO 139 may be substituted for BIO 135

Pathway I - 511004703
(Offered at JFC, JFC, MDC, SEC, HEC)

<table>
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<tr>
<th>Course</th>
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<td>BIO 225 Medical Microbiology</td>
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<tr>
<td>MLT 101 Introduction to the Clinical Laboratory AND</td>
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<tr>
<td>PHT 151 Phlebotomy for the Health Care Worker AND</td>
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<tr>
<td>MLT 152 Phlebotomy: Clinical Experience</td>
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<tr>
<td>MLT 205 Clinical Microbiology I AND</td>
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<tr>
<td>MLT 206 Clinical Microbiology II</td>
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<tr>
<td>MLT 233 Clinical Chemistry I AND</td>
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<tr>
<td>MLT 234 Clinical Chemistry II</td>
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<tr>
<td>MLT 279 Practicum II</td>
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<td><strong>Total Credit Hours – Pathway I</strong></td>
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</table>
Pathway II - 511004704
(Offered at JFC, MDC, MYC, WKC)
MLT 207 Introduction to Clinical Diagnostic Microbiology ............................ 2
PHB 170 Applied Phlebotomy AND ........................................ 3
PHB 152 Phlebotomy Clinical Experience ............................................. 1
MLT 208 Clinical Diagnostic Microbiology I AND .................................... 3
MLT 209 Clinical Diagnostic Microbiology II .......................................... 2
MLT 247 Introduction to Clinical Chemistry AND ...................................... 3
MLT 248 Advanced Clinical Chemistry ..................................................... 3
MLT 279 Practicum II ............................................................................ 5
Subtotal 22
Total Credit Hours – Pathway II 64-68

Diploma
Certified Medical Laboratory Assistant - 5110044029
(Offered at MDC)

General Education Courses:
Course from Area I:
ENG 101 Writing I ........................................................................... 3
Course from Area II:
MAT 110 Applied Mathematics OR ........................................................ 3
   Higher Quantitative Reasoning course .............................................. (3)
Subtotal 6
Support Courses:
   Digital Literacy .......................................................................... 0-3
   BIO 135 Basic Anatomy & Physiology with Laboratory* .................. (3)
   BIO 225 Medical Microbiology OR ................................................. 4
   MLT 207 Introduction to Clinical Diagnostic Microbiology ................ (2)
Subtotal 6-11
*BIO 137 & BIO 139 may be substituted for BIO 135.

Technical Courses:
MLT 101 Introduction to the Clinical Laboratory AND ......................... 3
PHB 151 Phlebotomy for the Health Care Worker AND ....................... 1
PHB 152 Phlebotomy: Clinical Experience AND ................................. 1
MLT 225 Immunohematology I OR ...................................................... 2
PHB 170 Applied Phlebotomy AND ..................................................... (3)
PHB 152 Phlebotomy: Clinical Experience ........................................... (1)
MLT 112 Urinalysis ........................................................................... 2
MLT 115 Serology ............................................................................. 2
Subtotal 22-26
Total 8-9

Phlebotomy for the Health Care Worker - 5110043039
(Offered at ASC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, 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 112 Urinalysis ........................................................................... 2
MLT 115 Serology ............................................................................. 2
Subtotal 4-5
Total 8-9

Phlebotomist - 5110043019
(Offered at HZC, JFC, MDC, MYC)
PHB 151 Phlebotomy AND ................................................................. 6
PHB 155 Phlebotomy Clinical ............................................................... 2-3
Subtotal 8
Total 6-8

Physician's Office Laboratory - 5110043029
(Offered at HEC, HZC, JFC, MDC, SEC, 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 112 Urinalysis ........................................................................... 2
MLT 115 Serology ............................................................................. 2
Subtotal 4-5
Total 8-9

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, emergency procedures, roof control, ground control, ventilation, health hazards, clean-up and rock dusting, health and safety aspects of assigned task, mine gases, explosives, compressed cylinders, electrical hazards, first aid, operation of equipment, electrical knowledge and troubleshooting, repairing electrical and fluid power equipment, maintaining the equipment, fabricating, supervising, and the engineering aspects of mining.

Associate in Applied Science
Mining Technology - 1509017019
(Offered at BSC, MDC)

General Education:
ENG 101 Writing I ........................................................................... 3
Quantitative Reasoning course* .......................................................... 3
Social/Behavioral Science course ...................................................... 3
GLY 101 Physical Geology AND ......................................................... 3
GLY 111 Laboratory for Physical Geology OR .................................. 1
Natural Sciences ............................................................................. (4)
Heritage/Humanities .................................................................... 3
Subtotal 16

Certificates
Advanced Phlebotomy Technician - 5110043049
(Offered at HZC, SEC)
PHB 151 Phlebotomy AND ................................................................. 1
PHB 152 Phlebotomy: Clinical Experience AND ................................. 1
PHB 155 Phlebotomy Clinical ............................................................... 1
MLT 101 Introduction to the Clinical Laboratory OR ............................. 2
MLT 151 Phlebotomy AND ................................................................. (1)
PHB 153 Advanced Topics in Phlebotomy AND ................................... (4)
PHB 155 Phlebotomy Clinical ............................................................... (2)
PHB 170 Applied Phlebotomy AND ..................................................... (3)
PHB 152 Phlebotomy: Clinical Experience AND ................................... (1)

*Note: MAT 150 is required for Engineering Operations Track and Supervisors Track.
Technical Core:

Digital Literacy ................................................. 3
MNG 102 Introduction to Mine Engineering and Mining Technology ............. 3
MNG 160 Elements of Underground Mining ............................................... 3
MNG 170 Elements of Surface Mining ..................................................... 2
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 26

Electricians Track - 150901703

(Offered at BSC, MDC)

MNG 123 Mining Electricity I AND .................................................. 4
MNG 125 Mining Electricity I Lab OR ............................................... 1
IMT 110 Industrial Maintenance Electrical Principles AND ................... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab ...................... (2)
ELT 244 Electrical Machinery and Controls OR .................................. 4
Equivalent course
IMT 150 Maintaining Industrial Equipment I ....................................... 3
IMT 151 Maintaining Industrial Equipment I Lab .................................. 2
ELT 250 Programmable Logic Controllers ........................................... 4
Technical Electives* ................................................................. 2
Subtotal 20

Total Credits 62

Engineering Operations Track - 150901701

(Offered at BSC, MDC)

MA 112 Trigonometry OR ............................................................. 2
MAT 155 Trigonometry ................................................................... (3)
Blueprint Reading course ............................................................. 2-3
MNG 286 Roof Control and Ventilation ................................................ 3
Technical Electives* ................................................................. 12
Subtotal 19-21

Total Credits 61-63

Mechanics Track - 150901705

(Offered at BSC, MDC)

Blueprint Reading course ............................................................. 2-3
ELT 265 Applied Fluid Power OR ................................................... 2-3
FPX 100 Fluid Power AND ............................................................ (3)
FPX 101 Fluid Power Lab .............................................................. (2)
ELT 122 Mechanical Power Transmission Systems ............................ 3
IMT 100 Welding for Maintenance .................................................... 3
IMT 101 Welding for Maintenance Lab .............................................. 2
IMT 150 Maintaining Industrial Equipment I ..................................... 3
IMT 151 Maintaining Industrial Equipment I Lab ................................ 2
Technical Electives* ................................................................. 2
Subtotal 20-23

Total Credits 62-65

Operators Track – 150901702

(Offered at BSC, MDC)

IMT 150 Maintaining Industrial Equipment I ..................................... 3
IMT 151 Maintaining Industrial Equipment I Lab ................................ 2
MNG 161 Elements of Underground Mining Lab ................................ 1-3
MNG 171 Elements of Surface Mining Lab ......................................... 1-3
Technical Electives* ................................................................. 11-13
Subtotal 18-24

Total Credits 60-66

Supervisors Track - 150901704

(Offered at BSC, MDC)

ACT 101 Fundamentals of Accounting I .............................................. 3
MNG 286 Roof Control and Ventilation ............................................... 3
BAS 283 Principles of Management .................................................. 3
BAS 288 Personal and Organizational Leadership .............................. 3
Technical Electives* ................................................................. 8
Subtotal 20

Total Credits 62

*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 .................................................. 3
Area 2 = Social/Behavioral Sciences, Natural Sciences, or
Quantitative Reasoning .................................................... 3
Subtotal 6

Technical Courses:

Blueprint Reading Course .......................................................... 2-3
Digital Literacy course or demonstrated competency ......... 0-3
EFM 100 Personal Financial Management OR .............................. 3
BAS 120 Personal Finance ............................................................ (3)
IMT 100 Welding for Maintenance .................................................. 3
IMT 101 Welding for Maintenance Lab ......................................... 2
ELT 250 Programmable Logic Controllers ................................. 4
ELT 265 Applied Fluid Power OR ................................................... 3
FPX 100 Fluid Power AND ............................................................ (3)
FPX 101 Fluid Power Lab .............................................................. (2)
IMT 150 Maintaining Industrial Equipment I .................................. 3
IMT 151 Maintaining Industrial Equipment I Lab ......................... 2
MNG 123 Mining Electricity AND .................................................. 4
MNG 125 Mining Electricity I Lab OR .............................................. 1
IMT 110 Industrial Maintenance Electrical Principles AND .......... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab ............. (2)
MNG 190 Mine Emergency Technician OR ................................. 3
KHP 190 First Aid & Emergency Care ............................................. (2)
MNG 185 Mining Permissibility .................................................... 3
MNG 274 Mine Safety ................................................................. 3
Technical Electives* ................................................................. 9-12
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

Inexperienced Surface Trainee – 1509013149

(Offered at MDC)

MNG 170 Elements of Surface Mining ............................................... 2
Total Credits 2

Inexperienced Underground Trainee – 1509013159

(Offered at MDC)

MNG 160 Elements of Underground Mining ..................................... 3
Total Credits 3
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<tr>
<td>MNG 160</td>
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<tr>
<td>MNG 150</td>
<td>Mining Laws</td>
<td>3</td>
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<tr>
<td>MNG 286</td>
<td>Roof Control and Ventilation</td>
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### Mining Technician II - 1509013049
(Offered at MDC)

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<td>MNG 125</td>
<td>Mining Electricity Lab</td>
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<tr>
<td>MNG 150</td>
<td>Mining Laws</td>
<td>3</td>
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<tr>
<td>MNG 190</td>
<td>Mine Emergency Technician OR</td>
<td>3</td>
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<tr>
<td>KHP 190</td>
<td>First Aid &amp; Emergency Care</td>
<td>(2)</td>
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<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
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<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
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### Mining Technician Assistant I - 1509013019
(Offered at BSC)

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<td>PMX 100</td>
<td>Precision Measurement</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
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<td>IMT 100</td>
<td>Welding for Maintenance</td>
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<td>IMT 101</td>
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### Mining Technician Assistant II - 1509013029
(Offered at BSC, MDC)

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<td>MNG 123</td>
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<tr>
<td>MNG 125</td>
<td>Mining Electricity Lab</td>
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<td>ELT 265</td>
<td>Applied Fluid Power OR</td>
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### Surface Field Mechanic - 1509013109
(Offered at BSC, MDC)

<table>
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<td>ELT 122</td>
<td>Mechanical Power Transmission Systems</td>
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<td>Applied Fluid Power OR</td>
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<td>Fluid Power Lab</td>
<td>(2)</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>
<td>2</td>
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### Surface Operator - 1509013139
(Offered at BSC, MDC)

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<tr>
<td>MNG 170</td>
<td>Elements of Surface Mining</td>
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<tr>
<td>MNG 171</td>
<td>Elements of Surface Mining Lab</td>
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<tr>
<td>EFM 100</td>
<td>Personal Financial Management OR</td>
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<tr>
<td>BAS 120</td>
<td>Personal Finance OR</td>
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<td>WPP 200</td>
<td>Workplace Principles</td>
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<td>HEO 125</td>
<td>Special Problems I OR</td>
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### Surface Supervisor - 1509013099
(Offered at BSC, MDC)

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MNG 150</td>
<td>Mining Laws</td>
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</tr>
<tr>
<td>MNG 190</td>
<td>Mine Emergency Technician OR</td>
<td>3</td>
</tr>
<tr>
<td>KHP 190</td>
<td>First Aid &amp; Emergency Care</td>
<td>(2)</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
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### Surface Technician/Greaser - 1509013119
(Offered at BSC)

<table>
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<tr>
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<tbody>
<tr>
<td>PMX 100</td>
<td>Precision Measurement</td>
<td>3</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELT 122</td>
<td>Mechanical Power Transmission Systems</td>
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### Undergraduate Mechanic/Electrician - 1509013069
(Offered at MDC)

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<tr>
<td>MNG 123</td>
<td>Mining Electricity I</td>
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<tr>
<td>MNG 125</td>
<td>Mining Electricity I Lab</td>
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<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
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<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
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<tr>
<td>ELT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
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<tr>
<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles Lab</td>
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<tr>
<td>ELT 250</td>
<td>Electrical Machinery and Controls OR</td>
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<td>ELT 265</td>
<td>Applied Fluid Power OR</td>
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<tr>
<td>FPX 100</td>
<td>Fluid Power AND</td>
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<td>FPX 101</td>
<td>Fluid Power Lab</td>
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<tr>
<td>PMX 100</td>
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<tr>
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</tr>
<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment I</td>
<td>3</td>
</tr>
<tr>
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### Underground Operator - 1509013129
(Offered at BSC, MDC)

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>MNG 160</td>
<td>Elements of Underground Mining</td>
<td>3</td>
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<tr>
<td>MNG 161</td>
<td>Elements of Underground Mining Lab</td>
<td>1-3</td>
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<tr>
<td>EFM 100</td>
<td>Personal Financial Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance OR</td>
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<tr>
<td>WPP 200</td>
<td>Workplace Principles</td>
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### Underground Supervisor - 1509013079
(Offered at BSC, MDC)

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<tr>
<td>MNG 150</td>
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<tr>
<td>MNG 274</td>
<td>Mine Safety</td>
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<td>MNG 190</td>
<td>Mine Emergency Technician OR</td>
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<td>KHP 190</td>
<td>First Aid &amp; Emergency Care</td>
<td>(2)</td>
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<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>MNG 286</td>
<td>Roof Control and Ventilation</td>
<td>3</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Digital Literacy</td>
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</tr>
<tr>
<td>WPP 200</td>
<td>Blueprint Reading course</td>
<td>2-3</td>
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<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>16-21</strong></td>
</tr>
</tbody>
</table>

### Digital Literacy

- Offered at BSC, MDC
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.

<table>
<thead>
<tr>
<th>Certificate</th>
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<tbody>
<tr>
<td>Multi-Skilled Technician - 4703033229</td>
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<tr>
<td>(Offered at JFC)</td>
</tr>
<tr>
<td>MST 150 Multi-Skilled Systems Technician ............................................ 9</td>
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<tr>
<td>Total Credits 9</td>
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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.

<table>
<thead>
<tr>
<th>Certificate</th>
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<tbody>
<tr>
<td>Construction and Maintenance Technician - 1509033010</td>
</tr>
<tr>
<td>(Offered at SMC)</td>
</tr>
<tr>
<td>NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases .......... 3</td>
</tr>
<tr>
<td>NGT 110 Preventing/Controlling Worksite Incidents .......................... 3</td>
</tr>
<tr>
<td>NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 .................................. 1</td>
</tr>
<tr>
<td>NGT 140 Pipeline Construction Safety ................................................. 3</td>
</tr>
<tr>
<td>NGT 180 Performing Maintenance on Gas Pipelines .............................. 3</td>
</tr>
<tr>
<td>NGT 200 Placing Gas Pipelines into Service ........................................ 3</td>
</tr>
<tr>
<td>NGT 205 Identifying Practices &amp; Procedures Used to Control and Monitor Cathodic Protection Systems ......................... 2</td>
</tr>
<tr>
<td>Total Credits 21</td>
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</table>

Leakage and Corrosion Control Technician - 1509033020

<table>
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<th>Certificate</th>
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<tbody>
<tr>
<td>Leakage and Corrosion Control Technician - 1509033020</td>
</tr>
<tr>
<td>(Offered at SMC)</td>
</tr>
<tr>
<td>NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases .......... 3</td>
</tr>
<tr>
<td>NGT 110 Preventing/Controlling Worksite Incidents .......................... 3</td>
</tr>
<tr>
<td>NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 .................................. 1</td>
</tr>
<tr>
<td>NGT 140 Pipeline Construction Safety ................................................. 3</td>
</tr>
<tr>
<td>NGT 150 Performing Patrol &amp; Leakage Surveys ...................................... 3</td>
</tr>
<tr>
<td>NGT 170 Installing Gas Operated Equipment ............................... 3</td>
</tr>
<tr>
<td>NGT 180 Installing and Inspecting Gas Distribution Piping ............... 3</td>
</tr>
<tr>
<td>NGT 230 Inspecting &amp; Maintaining Gas Metering Systems .................... 3</td>
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<td>Total Credits 22</td>
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Measurement and Regulation Technician - 1509033030

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<th>Certificate</th>
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<tbody>
<tr>
<td>Measurement and Regulation Technician - 1509033030</td>
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<td>(Offered at SMC)</td>
</tr>
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</tr>
<tr>
<td>NGT 110 Preventing/Controlling Worksite Incidents .......................... 3</td>
</tr>
<tr>
<td>NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 .................................. 1</td>
</tr>
<tr>
<td>NGT 140 Pipeline Construction Safety ................................................. 3</td>
</tr>
<tr>
<td>NGT 150 Performing Patrol &amp; Leakage Surveys ...................................... 3</td>
</tr>
<tr>
<td>NGT 205 Identifying Practices &amp; Procedures Used to Control and Monitor Cathodic Protection Systems ......................... 2</td>
</tr>
<tr>
<td>NGT 220 Identifying Principles &amp; Performing Operations Basic to Gas Measurement .............................................. 3</td>
</tr>
<tr>
<td>NGT 230 Inspecting &amp; Maintaining Gas Metering Systems .................... 3</td>
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<tr>
<td>NGT 240 Operating &amp; Maintaining Gas Pressure Regulating Systems .......... 3</td>
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Gas Service Technician - 1509033040

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<tbody>
<tr>
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</tr>
<tr>
<td>NGT 110 Preventing/Controlling Worksite Incidents .......................... 3</td>
</tr>
<tr>
<td>NGT 125 Maintaining Compliance with the National Fuel Gas Code NFPA 54 and ANSI Z223.1 ........................................... 1</td>
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<tr>
<td>NGT 150 Performing Patrol &amp; Leakage Surveys on Natural Gas Pipeline Facilities .............................................................. 3</td>
</tr>
<tr>
<td>NGT 160 Installing &amp; Maintaining Customer Service Lines and Meter and Regulator Sets .............................................. 3</td>
</tr>
<tr>
<td>NGT 170 Installing Gas Operated Equipment ...................................... 3</td>
</tr>
<tr>
<td>NGT 180 Installing and Inspecting Gas Distribution Piping ............... 3</td>
</tr>
<tr>
<td>NGT 230 Inspecting &amp; Maintaining Gas Metering Systems .................... 3</td>
</tr>
<tr>
<td>Total Credits 21</td>
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Certificates

<table>
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<tr>
<th>Certificate</th>
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<tr>
<td>Construction and Maintenance Technician - 1509033010</td>
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<td>NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases .......... 3</td>
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<tr>
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<tr>
<td>NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 .................................. 1</td>
</tr>
<tr>
<td>NGT 140 Pipeline Construction Safety ................................................. 3</td>
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<tr>
<td>NGT 180 Performing Maintenance on Gas Pipelines .............................. 3</td>
</tr>
<tr>
<td>NGT 200 Placing Gas Pipelines into Service ........................................ 3</td>
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<tr>
<td>NGT 205 Identifying Practices &amp; Procedures Used to Control and Monitor Cathodic Protection Systems ......................... 2</td>
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<tr>
<td>Total Credits 21</td>
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Leakage and Corrosion Control Technician - 1509033020

<table>
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<td>NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases .......... 3</td>
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<td>NGT 110 Preventing/Controlling Worksite Incidents .......................... 3</td>
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<tr>
<td>NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 .................................. 1</td>
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<tr>
<td>NGT 140 Pipeline Construction Safety ................................................. 3</td>
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<tr>
<td>NGT 150 Performing Patrol &amp; Leakage Surveys ...................................... 3</td>
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<td>NGT 205 Identifying Practices &amp; Procedures Used to Control and Monitor Cathodic Protection Systems ......................... 2</td>
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<tr>
<td>Total Credits 22</td>
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Measurement and Regulation Technician - 1509033030

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<th>Certificate</th>
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<td>Measurement and Regulation Technician - 1509033030</td>
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<tr>
<td>NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 .................................. 1</td>
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<td>NGT 230 Inspecting &amp; Maintaining Gas Metering Systems .................... 3</td>
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<tr>
<td>NGT 240 Operating &amp; Maintaining Gas Pressure Regulating Systems .......... 3</td>
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<tr>
<td>Total Credits 24</td>
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</table>
The Associate Degree Nursing program prepares graduates to use their skill and knowledge to fulfill the role of the nurse and is supported by the works of the National League for Nursing (NLN) Education Competencies and Quality and Safety Education in Nursing (QSEN). The NLN Outcomes and Competencies for Graduates of Associate Degree Programs in Nursing which serve as goals of nursing education for entry into nursing practice are: human flourishing, nursing judgment, professional identity, and spirit of inquiry. QSEN competencies which were developed to prepare future nurses to have the knowledge, skills and attitudes necessary to continuously improve the quality and safety of healthcare are: patient centered care, safety, informatics, teamwork and collaboration, evidenced based practice, and quality improvement. These core components are introduced, developed and built upon throughout the curriculum. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

The Associate Degree Nursing curriculum is organized around a clearly defined conceptual framework and combines general education and nursing courses. The nursing courses correlate classroom and clinical instruction in a variety of community agencies.

Acceptance into the Associate Degree Nursing program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements.

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). Completion of the nursing program will meet the KCTCS graduate requirement of digital literacy.

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 character, education, and attitudes necessary to continuously improve the quality and safety of healthcare.

The following Associate Degree Nursing programs are accredited by the Accreditation Commission for Nursing in Education, 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326, www.acenursing.org, telephone: (404) 975-5000.


The following Associate Degree Nursing program is accredited by the National League of Nursing Commission for Nursing Education Accreditation (CNAA), 2600 Virginia Avenue, NW, The Watergate, Washington, DC 20037, www.nln.org/cnnea, telephone: (202) 909-2487: Owensboro Community and Technical College.

### Associate in Applied Science

**Nursing - 5138017009**

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

#### General Education:

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<td>BIO 139</td>
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<td>BIO 225</td>
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<td>PSY 110</td>
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<tr>
<td>ENG 101</td>
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</tr>
<tr>
<td>Quantitative Reasoning Course at AA/AS Level</td>
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<tr>
<td>Heritage/ Humanities Course</td>
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### Nursing Modular Pathway - 513801704

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

#### Technical Courses:

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<th>Course</th>
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<tbody>
<tr>
<td>NAA 100</td>
<td><strong>Nursing Assistant Skills I</strong></td>
</tr>
<tr>
<td>CPR 100</td>
<td><strong>CPR for Healthcare Professionals</strong></td>
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<tr>
<td>NSG 101</td>
<td><em><strong>Nursing Practice I</strong></em></td>
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<tr>
<td>NSG 219</td>
<td><em><strong>Medical Surgical Nursing I OR</strong></em></td>
</tr>
<tr>
<td>NSG 195</td>
<td><strong>Transition to ADN OR</strong></td>
</tr>
<tr>
<td>NSG 199</td>
<td><strong>Accelerated Transition: PN-ADN Bridge</strong></td>
</tr>
<tr>
<td>NSG 211</td>
<td>Maternal Nursing</td>
</tr>
<tr>
<td>NSG 212</td>
<td>Behavioral Health Nursing</td>
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<tr>
<td>NSG 213</td>
<td>Pediatric Nursing</td>
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<td>NSG 229</td>
<td>Medical Surgical Nursing II</td>
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<td>NSG 239</td>
<td>Medical Surgical Nursing III</td>
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</table>

**Total Credits 62-66**

**Taken by Licensed Practical Nurses who meet specific program requirements**

**Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.**

Completion of the nursing program will meet the KCTCS graduation requirement of digital literacy.

### Nursing Standard Pathway - 513801705

(Offered at JFC)

#### Technical Courses:

<table>
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<th>Course</th>
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<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical OR</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I AND</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
</tr>
<tr>
<td>NSG 106</td>
<td><em><strong>Nursing Practice One</strong></em></td>
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<tr>
<td>NSG 206</td>
<td><em><strong>Nursing Two OR</strong></em></td>
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<tr>
<td>NSG 196</td>
<td><strong>Nursing LPN Bridge Course</strong></td>
</tr>
<tr>
<td>NSG 236</td>
<td>(Family Nursing) Nursing Three</td>
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<tr>
<td>NSG 246</td>
<td>Nursing Four</td>
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<td>HST 121</td>
<td>Pharmacology</td>
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<td><strong>Subtotal</strong></td>
<td><strong>38-42</strong></td>
</tr>
</tbody>
</table>

**Total Credits 62-66**

**Taken by licensed practical nurses who meet specific program requirements.**

**Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.**

Completion of the nursing program will meet the KCTCS graduation requirement of digital literacy.
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 ASC, BSC, ELC, HPC, MYC, OWV, WKC)
Available Completely Online

NNA 125 Advanced Nursing Assistant OR .......................... 6
NNA 100 Nursing Assistant Skills I AND ......................... (3)
NNA 115 Nursing Assistant Skills II OR ........................... (3)
MNA 100 Medicaid Nurse Aide AND .............................. (3)
NNA 115 Nursing Assistant Skills II .................................. (3)
BIO 135 Basic Anatomy and Physiology with Laboratory OR 4
AHS 109 Introduction to Body Structure and Function OR .......... (4)
BIO 137 Human Anatomy & Physiology IAND .................. (4)
BIO 139 Human Anatomy & Physiology II ........................ (4)
COM 181 Basic Public Speaking OR ................................. 3
COM 252 Introduction to Interpersonal Communication OR ... (3)
ENG 101 Writing I OR ................................................ (3)
TEC 200 Technical Communications ................................. (3)
Computer/Digital Literacy ................................. 3

Total Credits: 16-20

Nursing – Academic/Career Mobility Program

The Academic/Career Mobility Program provides a seamless educational option in nursing with two exit points allowing students to choose a career as an LPN or RN. The program is implemented in a shared framework which prepares graduates to use their skill and knowledge to fulfill the role of the nurse: enhance human flourishing, demonstrate sound nursing judgment, continually develop professional identity, and possess a spirit of inquiry to improve the quality of patient care. Encompassed within these roles are the core components of context and environment, knowledge and science, person/professional development, quality and safety, relationship-centered care, and teamwork. These core components are introduced, developed, and built upon 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 can apply to the program and will be admitted to the associate degree level based on a selective admission process.

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). Completion of the nursing program will meet the KCTCS graduation requirement of digital literacy.

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the National Council Licensure Examination for Registered Nurses (NCLEX Exam) if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

Associate in Applied Science

Academic/Career Mobility Program in Nursing - 5138017049
(Offered at BSC, SKY)

General Education Courses:

BIO 137 Human Anatomy & Physiology I .......................... 4
BIO 139 Human Anatomy & Physiology II ......................... 4
BIO 225 Medical Microbiology ...................................... 4
PSY 110 General Psychology ......................................... 3
ENG 101 Writing I .................................................. 3

Available Completely Online:

Quantitative Reasoning Course at AA/AS level .................. 3
Heritage/Humanities Course ................................. 3

General Education Total: 24

Total CREDITS: 62-66

**Taken only by Licensed Practical Nurses who have been admitted to the program and have met the pre-requisites.

Diploma

Academic/Career Mobility Program in Nursing – Practical Nursing - 5139014009
(Offered at BSC, SEC, SKY)

General Education Courses:

BIO 137 Human Anatomy & Physiology I .......................... 4
BIO 139 Human Anatomy & Physiology II ......................... 4
ENG 101 Writing I .................................................. 3
PSY 110 General Psychology ......................................... 3

Quantitative Reasoning Course at AA/AS level .................. 3

General Education Subtotal: 17

Total CREDITS: 38-42

Technical Courses:

NAA 100 Nursing Assistant Skills I ................................. 0-3
CPR 100 CPR for Healthcare Professionals ....................... 0-1
NRS 101 Nursing Care I AND .................................. 9
NRS 102 Nursing Care II OR .................................. 10
NRS 200 **LPN to ADN Transition .................................. (3)
NRS 203 Nursing Care III ......................................... 9
NRS 204 Nursing Care IV ........................................ 10

Subtotal: 38-42

Total CREDITS: 62-66

Technical Courses:

NAA 100 Nursing Assistant Skills I ................................. 0-3
CPR 100 CPR for Healthcare Professionals ....................... 0-1
NRS 101 Nursing Care I ........................................ 9
NRS 102 Nursing Care II .......................................... 10

Subtotal: 19-23

Total CREDITS: 36-40
The Madisonville Community College Associate Degree Nursing program is currently accredited by:


Associate in Applied Science
Nursing - 5138017069
(Offered at MDC)

General Education:
BIO 137 Anatomy and Physiology with Laboratory .......................... 4
BIO 139 Anatomy and Physiology with Laboratory II .......................... 4
PSY 110 General Psychology .................................................. 3
ENG 101 Writing I ................................................................. 3
Quantitative Reasoning* ...................................................... 3
Heritage/Humanities ......................................................... 3
Subtotal ..................................................................... 20

Technical or Support Courses:
NAA 100 Nursing Assistant Skills I or Equivalent ........................... 0-3
AHs 100 Human Growth and Development* .................................. 2
NIP 103 Introduction of Pharmacology ......................................... 2
NIP 116 Fundamentals of Nursing .................................................. 10
NIP 126 Nursing Care Across the Lifespan ..................................... 10
NIP 212 Advanced Medical Surgical Nursing ................................. 10
NIP 215 Leadership and Specialty Practice ..................................... 7
Subtotal ..................................................................... 41-44

Total Credits ................................................................ 61-64

NOTE: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. The student can receive credit for NAA 100 outside of college. The student must be active on the Kentucky Medicaid Nurse Aide Registry at time of admission.

**PSY 223 may be substituted for AHS 100.

*Quantitative Reasoning must meet the AA/AS requirement

Diploma
Practical Nursing - 5139014049
(Offered at MDC)

General Education:
BIO 137 Anatomy and Physiology with Laboratory .......................... 4
BIO 139 Anatomy and Physiology with Laboratory II .......................... 4
PSY 110 General Psychology .................................................. 3
ENG 101 Writing I ................................................................. 3
Subtotal ..................................................................... 14

Technical or Support Courses:
NAA 100 Nursing Assistant Skills I or equivalent ........................... 0-3
NIP 103 Introduction of Pharmacology ......................................... 2
NIP 116 Fundamentals of Nursing .................................................. 10
AHs 100 Human Growth and Development* .................................. 2
NIP 126 Nursing Care Across the Lifespan ..................................... 10
NIP 140 Practical Nursing Role Transition ..................................... 6
Subtotal ..................................................................... 30-33

Total Credits ................................................................ 44-47

Note: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. The student can receive credit for NAA 100 outside of college. The student must be active on the Kentucky Medicaid Nurse Aide Registry at time of admission.

*PSY 223 may be substituted for AHS 100.

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. Active status as a Kentucky State Registered Nurse Aide is required prior to enrolling in the first integrated nursing course. Licensed practical nurses may receive credit for the first semester of nursing based upon specific college offerings, work experience, and active Kentucky or compact state licensure status.

Progression within the Integrated Nursing Program is contingent upon achievement of a grade of “C” or better in all program course requirements and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

If more than three years have elapsed since initial enrollment in any nursing program, an applicant must repeat all nursing courses.

A nursing graduate with a misdemeanor or felony conviction may be denied permission to access the NCLEX by the Kentucky Board of Nursing.

The Integrated Nursing Program provides a seamless educational pathway in nursing which allows students to choose multiple career options. The Integrated Nursing Program is designed to deliver nursing education to a cohort of students with the opportunity to complete the Practical Nursing (PN) or Associate Degree Nursing level. The curriculum is structured around a clearly defined organizing framework and provides the foundation for a competency-based approach to nursing education through the utilization of interactive and student-focused learning strategies. Content and performance-based outcomes for the nursing courses are selected, developed, and leveled from simple to complex. Classroom instruction in theory and basic nursing skills is provided in various delivery methods. Under the guidance of program faculty, students gain valuable experience in the care of patients across the lifespan in a variety of healthcare settings and/or community agencies including hospitals, long-term care facilities, clinics and child care centers.

After three semesters the student has the option to exit as a PN by enrolling in the PN exit course. This option prepares graduates to function within the legal scope of practice under the supervision of a registered nurse or physician. The practical nursing level focuses on the maintenance of health and prevention of illness, the observation and nursing care of individuals experiencing changes in their health processes, and the evaluation of health practices of patients. Students who choose practical nursing as a career can complete the components in three semesters and are eligible to apply for licensure as a practical nurse. Graduates are eligible to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN).

The Associate Degree Nursing option prepares graduates to provide and manage patient care and to become members within the discipline of nursing. The associate nursing level focuses on the application of a specialized body of knowledge and skills obtained from social and biological sciences in providing evidenced-based, clinically competent care to individuals across the life span. Students choosing the Associate in Applied Science degree in Nursing can complete the components in four semesters and are eligible to apply for licensure as a registered nurse. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

After 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.
### Certificates

AHA Advanced Cardiac Life Support – 5139012050

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIP 220</td>
<td>Advanced Cardiac &amp; Emergent Care</td>
<td>2</td>
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<td><strong>Total Credits</strong></td>
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Kentucky Medication Aide - 5139012030

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>KMA 100</td>
<td>Kentucky Medication Aide</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>

NOTE: After the student completes the first semester of the Integrated Nursing program, the student is eligible to sit for the KMA exam.

Medicaid Nurse Aide – 5139012020

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
<td>3</td>
</tr>
<tr>
<td>NNA 100</td>
<td>Nursing Assistant Skills I OR</td>
<td>(3)</td>
</tr>
<tr>
<td>NAA 125</td>
<td>Advanced Nursing Assistant OR</td>
<td>(6)</td>
</tr>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical</td>
<td>(3.5)</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>3-6</strong></td>
</tr>
</tbody>
</table>

NOTE: Madisonville Community College does not offer NAA 125 or MNA 100.

### 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. The 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). Documentation of digital literacy as defined by KCTCS is required prior to completing the practical nursing program.

Note: The Kentucky Board of Nursing (KBN) may deny a nursing graduate admission to the NCLEX-PN Exam if an individual has been convicted of a misdemeanor or felony that involves acts that bear directly on the qualifications of the graduate to practice nursing.

### Diploma

**Practical Nurse - 5139014039**

(Offered at ASC, BLC, BSC, GTW, HPC, HZC, JFC, MYC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
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**Practical Nurse Pathway 1 – Traditional - 513901401**

(Offered at BLC, GTW, JFC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

**Practical Nurse Pathway 2 – Traditional Modified - 513901402**

(Offered at ASC, HZC, MYC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</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></td>
<td><strong>Subtotal</strong></td>
<td><strong>7-11</strong></td>
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**Technical Core:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>NNA 100</td>
<td>Nursing Assistant Skills I</td>
<td>0-3</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
<td>0-1</td>
</tr>
<tr>
<td>NPN 105</td>
<td>Development of Care Giver Role AND</td>
<td>2</td>
</tr>
<tr>
<td>NPN 110</td>
<td>Pharmacology I OR</td>
<td>6</td>
</tr>
<tr>
<td>NPN 115</td>
<td>*Practical Nursing Bridge Course</td>
<td>(6)</td>
</tr>
<tr>
<td>NPN 125</td>
<td>Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>NPN 130</td>
<td>Pharmacology II</td>
<td>3</td>
</tr>
<tr>
<td>NPN 135</td>
<td>Introduction to Health Deviations</td>
<td>6</td>
</tr>
<tr>
<td>NPN 200</td>
<td>Med Surg I</td>
<td>5</td>
</tr>
<tr>
<td>NPN 201</td>
<td>Child Bearing Family</td>
<td>3</td>
</tr>
<tr>
<td>NPN 205</td>
<td>Med Surg II</td>
<td>5</td>
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<tr>
<td>NPN 210</td>
<td>Clinical Practicum</td>
<td>4</td>
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<tr>
<td>NPN 215</td>
<td>Nursing Trends &amp; Issues</td>
<td>1</td>
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<td><strong>Subtotal</strong></td>
<td><strong>36-44</strong></td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>43-55</strong></td>
</tr>
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</table>

*Taken by advanced nursing assistant and allied health graduates.

### Practical Nurse – Pathway 3 – Modular – 513901403

(Offered at ASC, BLC, HPC, JFC, SKY)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</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>
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<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>10-14</strong></td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>43-56</strong></td>
</tr>
</tbody>
</table>

*Taken by advanced nursing assistant and allied health graduates.
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 in to 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). www.acoteonline.org

Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

Note: An OTA graduate with a misdemeanor or felony conviction may be denied permission to access the NBCOT certification exam. The student is responsible for contacting NBCOT prior to admission.

Certificate in Applied Science

Occupational Therapy Assistant - 5108037009

(Offered at JFC, MDC)

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)
BIO 137 Human Anatomy and Physiology I ......................... 4
BIO 139 Human Anatomy and Physiology II ........................ 4
MAT 110 Applied Mathematics OR Higher ............................ 3

Total 26

*MDC recommends REL 130 to fulfill the Heritage/Humanities requirement.

Pathway #1 - 510803701

(Offered at MDC)

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 Occupational Therapy ................ 3
OTA 256 Elder Issues in Occupational Therapy ..................... 2
OTA 206 Community Practice ....................................... 2
OTA 236 Professional Transitions and Management ............... 2
OTA 267 Level IIA Fieldwork ....................................... 5
OTA 277 Level IIIA Fieldwork ...................................... 5

Subtotal 31
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.

<table>
<thead>
<tr>
<th>Additional Technical Courses (MCC only):</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>OTA 113 Applied Anatomy and Kinesiology</td>
<td>2</td>
</tr>
<tr>
<td>OTA 115 Skills and Interventions I</td>
<td>2</td>
</tr>
<tr>
<td>OTA 125 Assistive Technology and Documentation</td>
<td>2</td>
</tr>
<tr>
<td>OTA 225 Skills and Interventions II</td>
<td>2</td>
</tr>
<tr>
<td>OTA 286 Clinical Seminar</td>
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</table>

| Total Additional Technical Credits     | 10 |

Alternate Pathway #1 for MCC/Total Credits: 67

Pathway #2 - 510803702
(Offered at JFC)

<table>
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<th>Additional General Education (Jefferson Only):</th>
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<td>SOC 101 Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>ENG 102 Writing II</td>
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Subtotal: 6

<table>
<thead>
<tr>
<th>Technical Core:</th>
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<tbody>
<tr>
<td>OTA 101 Introduction to Occupational Therapy</td>
<td>3</td>
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<tr>
<td>OTA 126 Level I Fieldwork</td>
<td>1</td>
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<tr>
<td>OTA 146 Occupational Therapy in Mental Health</td>
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<td>OTA 136 Physical Dysfunction</td>
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<td>OTA 226 Level IB Fieldwork</td>
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<td>OTA 246 Pediatric Issues in Occupational Therapy</td>
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<td>OTA 256 Elder Issues in Occupational Therapy</td>
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<td>OTA 206 Community Practice</td>
<td>2</td>
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<td>OTA 234 Professional Transitions and Management</td>
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<td>OTA 267 Level IIA Fieldwork</td>
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<tr>
<td>OTA 277 Level IIB Fieldwork</td>
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Subtotal: 31

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<tr>
<th>Additional Technical Courses (JCTC only):</th>
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<tbody>
<tr>
<td>OTA 116 Media Principles &amp; Procedures I</td>
<td>2</td>
</tr>
<tr>
<td>OTA 216 Media Principles &amp; Procedures II</td>
<td>2</td>
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</table>

<table>
<thead>
<tr>
<th>Recommended Additional Technical Courses (JFC only):</th>
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</thead>
<tbody>
<tr>
<td>OTA 286 Clinical Seminar</td>
<td>(2)</td>
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</tbody>
</table>

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.

The Civil Litigation Certificate, Paralegal Technology Certificate, and Family Law Certificate are embedded in the Paralegal Technology AAS Degree.

Associate in Applied Science

Paralegal Technology - 2203027019
(Offered at MDC)

<table>
<thead>
<tr>
<th>General Education Courses:</th>
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<tbody>
<tr>
<td>ENG 101 Writing I</td>
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<tr>
<td>Quantitative Reasoning</td>
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<tr>
<td>Natural Sciences</td>
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<tr>
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<tr>
<td>Heritage/Humanities</td>
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<tr>
<td>POL 101 American Government</td>
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<td>COM 181 Basic Public Speaking</td>
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Subtotal: 21

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<tr>
<td>CIT 130 Computer/Digital Literacy Course</td>
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<td>Productivity Software</td>
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<td>Criminal Justice Elective Course**</td>
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Subtotal: 9

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<tr>
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<tbody>
<tr>
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<tr>
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<td>PGL 113 Law Office Management</td>
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<td>PGL 212 Legal Writing</td>
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<tr>
<td>PGL 221 Wills and Estates</td>
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<td>PGL 213 Civil Litigation I</td>
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<td>PGL 214 Real Property I</td>
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<tr>
<td>PGL 223 Civil Litigation II</td>
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<tr>
<td>PGL 224 Real Property II</td>
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<td>PGL 231 Torts</td>
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<td>PGL 233 Ethics</td>
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Subtotal: 36

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Associate in Applied Science

Civil Litigation – 2203023039
(Offered at MDC)

| PGL 111 Legal Systems and Terminology | 3 |
| PGL 112 Legal Research | 3 |
| PGL 223 Civil Litigation I | 3 |
| PGL 224 Civil Litigation II | 3 |
| PGL 231 Torts | 3 |

Total: 15

Family Law – 2203023029
(Offered at MDC)

| PGL 111 Legal Systems and Terminology | 3 |
| PGL 112 Legal Research | 3 |
| PGL 211 Family Law | 3 |
| PGL 233 Ethics | 3 |

Total: 12
Drugstore Certification

The pharmacy technician requires training to provide a knowledge base on which to make decisions to assist the pharmacist in their pursuit to provide exemplary patient care. The Pharmacy Technician Program prepares the student to function as a pharmacy technician under the supervision of the pharmacist. The essential elements of this program have been designed to provide competency of a skill set that pharmacy technicians can use in a wide variety of practice settings. The curriculum includes content areas in professional skills, processing and handling of medications and medication orders, patient care, quality, and safety skills, and regulatory knowledge. The program provides comprehensive educational experiences through lectures, hands-on simulated labs, and experiential opportunities under the supervision of a licensed pharmacist.

Diploma

Advanced Level Pharmacy Technology - 5108054029
(Offered at BLC, HPC, JFC, SMC, WKCTC)

<table>
<thead>
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<td>COM 252</td>
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<tr>
<td>AHS 115</td>
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<td>MIT 103</td>
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<td>BIO 135</td>
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Total Credits: 39-46

Certificate

Entry Level Pharmacy Technology - 5108053039
(Offered at BLC, HPC, JFC, SMC)

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<tr>
<th>Course</th>
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<td>COM 252</td>
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<tr>
<td>AHS 115</td>
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<td>CLA 131</td>
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<td>MIT 103</td>
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<td>PHA 145</td>
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<td>PHA 150</td>
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Total Credits: 21-24

Physical Therapist Assistant

This program prepares the individual to become a physical therapist assistant (PTA) who is able to perform selected components of intervention and data collection under the direction and supervision of a physical therapist. The program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE*).

The curriculum combines general education and physical therapy courses. Various facilities are utilized for clinical experiences. The graduate is eligible to sit for the national licensing examination for the physical therapist assistant. Enrollment in this program is limited; therefore, a selective admissions process is followed.

Students enrolled in the Physical Therapist Assistant program must achieve a minimum grade of "C" in each required general education course; a minimum grade of "C" in each required PTA didactic course; and a grade of pass in each clinical practicum course to complete the program.

CPR requirements must be attained by completing a program-approved CPR course prior to enrolling in the first physical therapist assistant course and must be kept current throughout the program.

*The Physical Therapist Assistant programs at Hazard Community and Technical College / Southeast Kentucky Community and Technical College, Jefferson Community and Technical College, Madisonville Community College, Somerset Community College, and West Kentucky Community and Technical College are accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) 1111 North Fairfax Street, Alexandria VA, 22314; telephone: 703-706-3245; e-mail: accreditation@apta.org; website: www.capteonline.org.

Associate in Applied Science

Physical Therapist Assistant - 5108067049
(Offered at BSC, HPC, HZC, JFC, MYC, SEC, SMC, WKCTC)

Pathway 1 - 510806703
(Offered at BSC, HPC, HZC, JFC, MYC, SEC, SMC, WKCTC)

General Education:

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<td>PSY 110</td>
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<tr>
<td>MAT 150</td>
<td>3</td>
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</table>

Subtotal: 26
Plastics Processing

The Plastics Processing certificate will prepare students for an entry-level position in plastics processing companies.

Certificate

Plastics Processing - 1506073049

ITE 233 Statistical Process Control ........................................ 3
ELT 107 Computer Applications for Technicians ...................... 4
BSX 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 I .......................................................... 3
Quantitative Reasoning .................................................. 3
Social/Behavioral Sciences ........................................... 3
Heritage/Humanities .................................................. 3
Natural Sciences ......................................................... 3
Oral Communications ................................................. 3
Subtotal 18

Technical Courses:

AHS 105 Introduction to Allied Health Occupations ............... 3
Subtotal 3

Technical Courses:

ITE 233 Statistical Process Control ........................................ 3
ELT 107 Computer Applications for Technicians ...................... 4
BSX 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 I .......................................................... 3
Quantitative Reasoning .................................................. 3
Social/Behavioral Sciences ........................................... 3
Heritage/Humanities .................................................. 3
Natural Sciences ......................................................... 3
Oral Communications ................................................. 3
Subtotal 18

Technical Courses:

AHS 105 Introduction to Allied Health Occupations ............... 3
Subtotal 3

Technical Courses:

ITE 233 Statistical Process Control ........................................ 3
ELT 107 Computer Applications for Technicians ...................... 4
BSX 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
### Technical Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PLB 150</td>
<td>Plumbing, Introduction to the Trade</td>
<td>3</td>
</tr>
<tr>
<td>PLB 151</td>
<td>Basic Plumbing Skills OR</td>
<td>3</td>
</tr>
<tr>
<td>PLB 100</td>
<td>Basic Theory of Plumbing AND</td>
<td></td>
</tr>
<tr>
<td>PLB 105</td>
<td>Plumbing Principles</td>
<td></td>
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<tr>
<td>PLB 160</td>
<td>Plumbing Systems, DWV &amp; Water</td>
<td>3</td>
</tr>
<tr>
<td>PLB 161</td>
<td>Rough-In of Plumbing Fixtures</td>
<td>2</td>
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<tr>
<td>PLB 250</td>
<td>Plumbing Appliances &amp; Fixtures</td>
<td>2</td>
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<tr>
<td>PLB 251</td>
<td>Pumps &amp; Water Heaters</td>
<td>2</td>
</tr>
<tr>
<td>PLB 260</td>
<td>Service AND</td>
<td>2</td>
</tr>
<tr>
<td>PLB 261</td>
<td>Advanced Plumbing Lab OR</td>
<td></td>
</tr>
<tr>
<td>PLB 265</td>
<td>Valve &amp; Faucet Repairs AND</td>
<td></td>
</tr>
<tr>
<td>PLB 267</td>
<td>Water Heater Service &amp; Replacement AND</td>
<td>(1)</td>
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<td>PLB 269</td>
<td>Sewer &amp; Drain Cleaning</td>
<td>(1)</td>
</tr>
<tr>
<td>PLB 270</td>
<td>License Preparation for Journeyman Exam</td>
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<tr>
<td>PLB 298</td>
<td>Plumbing Practicum/ Repairs &amp; Maintenance OR</td>
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<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
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<tr>
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<td>Personal Finance OR</td>
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<td>EFM 100</td>
<td>Personal Financial Management</td>
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<tr>
<td>WPP 200</td>
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</table>

**Subtotal:** 42-45

**Total:** 60-63

### Diploma

**Plumber Mechanic - 4605034019**

*(Offered at ELC, JFC, MYC)*

#### General Education:

| Area 1 = Written Communication, Oral Communications, or Heritage/Humanities | 3 |
| Area 2 = Quantitative Reasoning | 3 |

**Subtotal:** 6

#### Technical Courses:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PLB 150</td>
<td>Plumbing, Introduction to the Trade</td>
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<tr>
<td>PLB 151</td>
<td>Basic Plumbing Skills OR</td>
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<td>PLB 100</td>
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<tr>
<td>PLB 105</td>
<td>Plumbing Principles</td>
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<tr>
<td>PLB 160</td>
<td>Plumbing Systems, DWV &amp; Water</td>
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<tr>
<td>PLB 161</td>
<td>Rough-In of Plumbing Fixtures</td>
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<td>PLB 250</td>
<td>Plumbing Appliances &amp; Fixtures</td>
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<td>PLB 251</td>
<td>Pumps &amp; Water Heaters</td>
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<td>PLB 260</td>
<td>Service AND</td>
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<tr>
<td>PLB 261</td>
<td>Advanced Plumbing Lab OR</td>
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<td>PLB 267</td>
<td>Water Heater Service &amp; Replacement AND</td>
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<td>PLB 269</td>
<td>Sewer &amp; Drain Cleaning</td>
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<td>PLB 270</td>
<td>License Preparation for Journeyman Exam</td>
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</tr>
<tr>
<td>PLB 298</td>
<td>Plumbing Practicum/ Repairs &amp; Maintenance OR</td>
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<tr>
<td>PLB 299</td>
<td>Plumbing Cooperative Education</td>
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<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
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<tr>
<td>BAS 120</td>
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<tr>
<td>EFM 100</td>
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<td>WPP 200</td>
<td>Workplace Principles OR</td>
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<tr>
<td>BAS 250</td>
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<td>Introduction to Industrial Safety OR</td>
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**Subtotal:** 39-45

**Total:** 45 - 51

### Certificates

#### 1st Year Plumber Mechanic - 4605033109

*(Offered at ELC, JFC, MYC)*

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<td>PLB 105</td>
<td>Plumbing Principles</td>
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<tr>
<td>PLB 160</td>
<td>Plumbing Systems, DWV &amp; Water</td>
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<td>PLB 161</td>
<td>Rough-In of Plumbing Fixtures</td>
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**Total:** 16

#### 2nd Year Plumber Mechanic* - 4605033119

*(Offered at ELC, JFC, MYC)*

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<td>Plumbing, Introduction to the Trade</td>
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<td>Rough-In of Plumbing Fixtures</td>
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<td>PLB 250</td>
<td>Plumbing Appliances &amp; Fixtures</td>
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<td>Pumps &amp; Water Heaters</td>
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<tr>
<td>PLB 262</td>
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<td>PLB 260</td>
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<td>PLB 261</td>
<td>Advanced Plumbing Lab AND</td>
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<td>PLB 270</td>
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<td>Service AND</td>
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<td>PLB 265</td>
<td>Valve &amp; Faucet Repairs AND</td>
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<td>PLB 267</td>
<td>Water Heater Service &amp; Replacement AND</td>
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<td>PLB 269</td>
<td>Sewer &amp; Drain Cleaning</td>
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**Total:** 24-26

*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test

#### Certified Backflow Tester* - 4605033079

*(Offered at BSC, ELC, JFC, MYC)*

<table>
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<tbody>
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**Total:** 3

*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)*

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<td>3</td>
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<tr>
<td>PLB 151</td>
<td>Basic Plumbing Skills OR</td>
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</tr>
<tr>
<td>PLB 100</td>
<td>Basic Theory of Plumbing AND</td>
<td></td>
</tr>
<tr>
<td>PLB 105</td>
<td>Plumbing Principles</td>
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<td>PLB 250</td>
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<td>Backflow Prevention</td>
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<tr>
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**Total:** 17

#### Maintenance Plumber - 4605033049

*(Offered at BSC, ELC, JFC, MYC)*

<table>
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<tbody>
<tr>
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<td>Plumbing, Introduction to the Trade</td>
<td>3</td>
</tr>
<tr>
<td>PLB 151</td>
<td>Basic Plumbing Skills OR</td>
<td>3</td>
</tr>
<tr>
<td>PLB 100</td>
<td>Basic Theory of Plumbing AND</td>
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<tr>
<td>PLB 105</td>
<td>Plumbing Principles</td>
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<tr>
<td>PLB 115</td>
<td>Plumbing Applications</td>
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<td>ISX 101</td>
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**Total:** 13
**Plumber's Helper - 4605033129**  
(Offered at ELC, GTW, JFC, MYC)

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<td>PLB 151</td>
<td>Basic Plumbing Skills OR</td>
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</tr>
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<td>PLB 100</td>
<td>Basic Theory of Plumbing AND</td>
<td>3</td>
</tr>
<tr>
<td>PLB 105</td>
<td>Plumbing Principles</td>
<td>3</td>
</tr>
<tr>
<td>PLB 160</td>
<td>Plumbing Systems, DWV &amp; Water AND</td>
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</tr>
<tr>
<td>PLB 161</td>
<td>Rough-In of Plumbing Fixtures OR</td>
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</tr>
<tr>
<td>PLB 250</td>
<td>Plumbing Appliances &amp; Fixtures AND</td>
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<tr>
<td>PLB 251</td>
<td>Pumps &amp; Water Heaters</td>
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<td>PLB 261</td>
<td>Advanced Plumbing Lab OR</td>
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<tr>
<td>PLB 265</td>
<td>Valve &amp; Faucet Repairs AND</td>
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<td>PLB 267</td>
<td>Water Heater Service &amp; Replacement AND</td>
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<td>PLB 269</td>
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<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
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<td>WPP 200</td>
<td>Workplace Principles OR</td>
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<td>Business Employability Seminar</td>
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**Total** 23-29

**Rough Plumber - 4605033059**  
(Offered at ELC, JFC, MYC)

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<td>PLB 151</td>
<td>Basic Plumbing Skills OR</td>
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</tr>
<tr>
<td>PLB 100</td>
<td>Basic Theory of Plumbing AND</td>
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<td>PLB 105</td>
<td>Plumbing Principles</td>
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<td>PLB 160</td>
<td>Plumbing Systems, DWV &amp; Water</td>
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**Total** 9

**Service & Repair Plumber - 4605033089**  
(Offered at ELC, JFC, MYC)

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<td>PLB 151</td>
<td>Basic Plumbing Skills OR</td>
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<td>PLB 100</td>
<td>Basic Theory of Plumbing AND</td>
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<td>Plumbing Principles</td>
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<tr>
<td>PLB 160</td>
<td>Plumbing Systems, DWV &amp; Water</td>
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<td>PLB 161</td>
<td>Rough-In of Plumbing Fixtures</td>
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<td>PLB 260</td>
<td>Service &amp; Code Review</td>
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<td>PLB 261</td>
<td>Advanced Plumbing OR</td>
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<td>PLB 265</td>
<td>Valve &amp; Faucet Repairs AND</td>
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<td>PLB 267</td>
<td>Water Heater Service &amp; Replacement AND</td>
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<td>PLB 269</td>
<td>Sewer &amp; Drain Cleaning</td>
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**Total** 20-21

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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)

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<td>Professional Kiln Design</td>
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<td>Professional Kiln Building</td>
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**Total** 17

**Professional Raku Pottery - 5007113019**  
(Offered at SEC)

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<tr>
<td>PC 110</td>
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<tr>
<td>PC 254</td>
<td>Professional Raku Pottery I</td>
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<td>PC 256</td>
<td>Professional Raku Pottery II</td>
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</table>

**Total** 17
The Professional Studio Artist (PSA) program prepares individuals for careers as independent studio artists and business owners, designers, performers and studio technicians. The curriculum offers technical, design, product development and performance classes in a variety of disciplines coupled with business, marketing and management courses. Class work covering the history and traditions of each discipline, basic studio development and technology requirements will be a vital part of the student’s education. Students will complete a track of study and acquire the necessary technical 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 metals processes, processes of jewel 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 AAS Track 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 designed to prepare students to become independent and self-reliant ceramicists in creative and functional design.

The diploma in Ceramics Studio Technician and the certificate in Ceramics Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as a ceramicist and technician. The Ceramics Studio Certificate will give the student an intensive foundation in ceramics technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of ceramic object design and fabrication techniques necessary for entry-level positions in custom or commercial ceramic industry.

Documentation of digital literacy as defined by KCTCS is required prior to enrolling in the first PSA course.

**HUM 202 for Bluegrass and Traditional Music Track**

### Associate in Applied Science

#### Professional Studio Artist - 5002017019

(Offered at HZC)

<table>
<thead>
<tr>
<th>Course</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>
</tr>
<tr>
<td>COM 252</td>
<td>Any higher level Quantitative Reasoning course</td>
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<td>COM 181</td>
<td>Basic Public Speaking</td>
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<td><strong>Social/Behavioral Sciences</strong></td>
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#### Bluegrass and Traditional Music Track - 500201703

( Offered at HZC)

<table>
<thead>
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<th>Course</th>
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<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>MUS 174</td>
<td>Theory for Non-Music Majors</td>
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<tr>
<td>MUC 150</td>
<td>Classic Instruction to Piano OR</td>
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<tr>
<td>PSM 101</td>
<td>Bluegrass &amp; Traditional Music History I</td>
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<tr>
<td>PSM 105</td>
<td>Recording I</td>
</tr>
<tr>
<td>PSM 107</td>
<td>Songwriting I</td>
</tr>
<tr>
<td>PSM 112</td>
<td>Individual String Instrument Instruction x 4</td>
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<tr>
<td>PSM 113</td>
<td>Guitar I OR</td>
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<td>18-19</td>
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**Competency by audition**

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<tr>
<td>PSM 114</td>
<td>Bluegrass &amp; Traditional Band/Ensemble x4</td>
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<tr>
<td>PSM 118</td>
<td>Bluegrass &amp; Traditional Harmony/Part Singing</td>
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<tr>
<td>PSM 121</td>
<td>Bluegrass &amp; Traditional Music History II</td>
</tr>
<tr>
<td>PSM 125</td>
<td>Recording II OR</td>
</tr>
<tr>
<td>PSM 117</td>
<td>Songwriting II</td>
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<tr>
<td>PSM 231</td>
<td>Bluegrass &amp; Traditional Music III</td>
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<tr>
<td>PSM 235</td>
<td>Recording III OR</td>
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<td>PSM 217</td>
<td>Songwriting III</td>
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<tr>
<td>PSM 245</td>
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**Total**

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### PSW 212 Chair Design
- Professional Artist Seminar ........................................... (2)

**Subtotal** 42-44

**Total Credits** 60-63

- Bluegrass & Traditional Music IV .................................... (3)

- Field Experience/Production Business ............................. (3)

### Ceramics Track - 500201704

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<td>2-Dimensional Design</td>
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<td>ART 113</td>
<td>3-Dimensional Design</td>
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<tr>
<td>BAS 200</td>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
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<td>PSC 112</td>
<td>Ceramics I</td>
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<td>PSC 117</td>
<td>Glaze Calculations</td>
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<td>PSC 210</td>
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<td>PSC 211</td>
<td>Kiln Operation and Design</td>
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<td>PSC 212</td>
<td>Ceramic Production Techniques</td>
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<td>PSC 220</td>
<td>Ceramics Product Development</td>
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**Subtotal** 45

### Jewelry/Metals Track - 500201702

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<td>2-Dimensional Design</td>
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<td>ART 130</td>
<td>3-Dimensional Design</td>
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<td>PSJ 115</td>
<td>Jewelry/Metals II</td>
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<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 216</td>
<td>Stone Setting</td>
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<td>Jewelry/Metals Product Development</td>
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**Subtotal** 45

### Wood/Furniture Design Track - 500201701

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</tr>
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<td>ART 112</td>
<td>2-Dimensional Design</td>
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<tr>
<td>ART 113</td>
<td>3-Dimensional Design</td>
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<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
<td>3</td>
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<tr>
<td>PSA 111</td>
<td>Introduction to Furniture Making</td>
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<tr>
<td>PSA 115</td>
<td>Furniture Making II</td>
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<td>PSA 116</td>
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<td>Wood Turning for Furniture</td>
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<td>PSA 210</td>
<td>Furniture Making III</td>
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<td>PSA 211</td>
<td>Wood Bending and Veneering</td>
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- Furniture Making IV ........................................... (3)

- Furniture/Wood Product Development ....................... (2)

- Professional Artist Seminar ................................ (3)

**Subtotal** 43

**Total Credits** 61-62

### PSW 230 Furniture Making V (Optional) ........................ (6)

### Diplomas

**Bluegrass & Traditional Studio Artist - 5002014039**

(Offered at HZC)

### General Education:

*Area 1 = Written/oral Communications, and/or Heritage/Humanities .................. 3-6*

*Area 2 = Social/Behavioral Science, Natural Science, and/or Quantitative Reasoning ............ 3-6*

**Subtotal** 9

### Support Courses

- BAS 200 Small Business Management ............................. (3)

- HUM 202 Survey of Appalachian Studies I ..................... (3)

- MUS 174 Theory for Non-Music Majors ........................... (3)

**Subtotal** 9

### Technical Courses

- Digital Literacy OR .................................................. 0-3

- Digital Literacy Competency by exam

- PSM 101 Bluegrass & Traditional Music History I .......... (3)

- PSM 113 Guitar I OR .................................................. 0-1

- Competency by audition

- PSM 105 Recording I .................................................. 1

- PSM 107 Songwriting I ................................................. 1

- PSM 112 Individual String Instrument Instruction x4 ....... (4)

- PSM 114 Bluegrass & Traditional Band/Ensemble x4 .......... (8)

- PSM 241 Bluegrass & Traditional Music IV ( elective) ...... 0-3

- PSM 250 Field Experience/Production/Business ( elective) .. 0-3

**Subtotal** 17-27

**Total Credits** 35-45

### Ceramics Studio Technician - 5002014049

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<th>Course Title</th>
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<tbody>
<tr>
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<td>Writing I</td>
<td>3</td>
</tr>
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</table>
| MAT 110     | Applied Mathematics OR .................................. (3)

**Subtotal** 6

### Technical/Support Courses

- Digital Literacy OR .................................................. 0-3

- Digital Competency by exam

- ART 110 Drawing I .................................................... 3

- ART 113 3-Dimensional Design .................................... 3

- BAS 200 Small Business Management ............................. 3

- PSC 112 Ceramics I .................................................. 3

- PSC 115 Ceramics II ................................................ 3

- PSC 117 Glaze Calculations ....................................... 2

- PSC 210 Ceramics III ................................................ 3

- PSC 211 Kiln Operation and Design                        | 3

- PSC 212 Ceramic Production Techniques                    | 3

- PSC 215 Ceramics IV ................................................| 3

- PSC 220 Ceramics Product Development                     | 3

- PSC 230 Ceramics V ................................................| 3

- PSA 240 Professional Artist Seminar                      | 3

**Subtotal** 30-33

**Total Credits** 36-39

### Jewelry/Metals Technician - 5002014029

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<thead>
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<th>Course Title</th>
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| MAT 110     | Applied Math OR ......................................... 3

**Subtotal** 6

### Subtotal Credits

- Total Credits.......................................................... 36-39

- Area 1 = Written/oral Communications, and/or Heritage/Humanities .................. 3-6

- Area 2 = Social/Behavioral Science, Natural Science, and/or Quantitative Reasoning ............ 3-6

- Subtotal** 9
### Technical/Support Courses

- **Digital Literacy OR Digital Competency by exam**
  - **ART 110**: Drawing I .................................................. 3
  - **ART 113**: 3-Dimensional Design ................................... 3
  - **BAS 200**: Small Business Management ................................. 3
  - **PSJ 110**: Jewelry/Metals I ........................................... 3
  - **PSJ 115**: Jewelry/Metals II ........................................... 3
  - **PSJ 117**: Metal Casting /Finishing Techniques ....................... 2
  - **PSJ 210**: Jewelry/Metals III .......................................... 3
  - **PSJ 211**: Hollowware and Metal Forming .............................. 3
  - **PSJ 212**: Metallurgy of Precious Metals .............................. 2
  - **PSJ 215**: Jewelry/Metals IV .......................................... 3
  - **PSJ 216**: Stone Setting .............................................. 3

**Subtotal** 31-34

**Total Credits** 37-40

### Audio Recording – 5002013089

(Offered at HZC)

- **BAS 200**: Small Business Management ................................. 3

### Guided Electives (Select 2 of the following):

- **PSM 101**: Bluegrass & Traditional Music History I ................... 3
- **MLIS 100**: Intro to Music .............................................. 3
- **MLIS 104**: Introduction to Jazz History ................................. 3
- **MLIS 222**: History and Sociology of Rock Music ...................... 3

### Technical Electives (Select 1 of the following):

- **PSM 107**: Songwriting I ............................................... 1
- **PSM 112**: Individual Stringed Instruction ................................ 1
- **PSM 113**: Guitar I ...................................................... 1

### Technical Courses

- **PSM 105**: Recording I ................................................ 1
- **PSM 125**: Recording II ................................................ 1
- **PSM 235**: Recording III .............................................. 2
- **PSM 245**: Recording IV .............................................. 2

**Total Credits** 16

### Bluegrass & Traditional Music Fundamentals - 5002013039

(Offered at HZC)

- **BAS 200**: Small Business Management .................................. 3

### Technical Courses

- **PSM 112**: Individual String Instrument Instruction x2 ................ 2
- **PSM 105**: Recording I ................................................ 1
- **PSM 107**: Songwriting I ............................................... 1
- **PSM 114**: Bluegrass & Traditional Band/Ensemble x2 ................. 4
- **PSM 101**: Bluegrass & Traditional Music History I .................... 3
- **PSM 113**: Guitar I OR .................................................. 0-1

**Competency by audition**

**Total Credits** 14-15

### Ceramics Fundamentals - 5002013049

- **BAS 200**: Small Business Management .................................. 3
- **ART 112**: 2-Dimensional Design ....................................... 3
- **PSM 112**: Ceramics I .................................................... 3
- **PSM 115**: Ceramics II ................................................... 3
- **PSM 117**: Glaze Calculations ........................................... 3
- **PSM 211**: Kiln Operation and Design ................................... 3

**Subtotal** 18

### Ceramics Studio - 5002013079

- **ART 110**: Drawing I .................................................... 3
- **ART 112**: 2-Dimensional Design ....................................... 3
- **PSM 112**: Ceramics I .................................................... 3
- **PSM 115**: Ceramics II ................................................... 3
- **PSM 117**: Glaze Calculations ........................................... 3
- **PSM 211**: Kiln Operation and Design ................................... 3
- **PSM 212**: Ceramics Production Techniques ............................ 3

**Subtotal** 15

### Furniture Making Fundamentals - 5002013029

- **ART 110**: Drawing I .................................................... 3
- **ART 122**: 2-Dimensional Design ....................................... 3
- **PSM 111**: Introduction to Furniture Making ............................ 3
- **PSM 115**: Furniture Making II ........................................ 3
- **PSM 116**: Wood Finishing .............................................. 2
- **PSM 211**: Wood Bending and Veneering .............................. 3

**Total Credits** 14

### Jewelry/Metals Fundamentals - 5002013019

- **ART 110**: Drawing I .................................................... 3
- **ART 112**: 2-Dimensional Design ....................................... 3
- **PSJ 110**: Jewelry/Metals I ............................................. 3
- **PSJ 115**: Jewelry/Metals II ............................................ 3
- **PSJ 210**: Jewelry/Metals III ............................................ 3

**Total Credits** 15

### Jewelry Studio - 5002013069

- **PSJ 110**: Jewelry/Metals I ............................................. 3
- **PSJ 115**: Jewelry/Metals II ............................................ 3
- **PSJ 116**: Ancient Techniques .......................................... 3
- **PSJ 117**: Metal Casting/Finishing Techniques ........................ 3
- **PSJ 211**: Hollowware and Metal Forming .............................. 3
- **PSJ 212**: Metalurgy of Precious Metals .............................. 2

**Total Credits** 16

### Wood Furniture Studio - 5002013059

- **PSW 111**: Introduction to Furniture Making ............................ 3
- **PSW 115**: Furniture Making II ........................................ 3
- **PSW 116**: Wood Finishing .............................................. 2
- **PSW 117**: Wood Turning for Furniture ................................ 3
- **PSW 211**: Wood Bending and Veneering .............................. 3

**Total Credits** 14
### Project Lead the Way

Project Lead the Way complements traditional college-preparatory academic studies with challenging career/technical studies, providing students with hands-on exposure to real-life engineering or biomedical challenges.

### Certificate

**Biomedical Science – PLTW – 510003040**  
*(Offered at BLC, HZC, OW)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLW 130 Principles of Biomedical Sciences</td>
<td>4</td>
</tr>
<tr>
<td>PLW 135 Principles of Human Body Systems</td>
<td>4</td>
</tr>
<tr>
<td>PLW 140 Medical Interventions</td>
<td>4</td>
</tr>
<tr>
<td>PLW 145 Biomedical Innovations</td>
<td>4</td>
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</tbody>
</table>

**Total Credits**: 16

### Engineering Related – PLTW – 1515993019

*(Offered at BLC, OW, MDC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PLW 100 Introduction to Engineering Design</td>
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<tr>
<td>PLW 125 Principles of Engineering</td>
<td>4</td>
</tr>
<tr>
<td>PLW 150 Digital Electronics</td>
<td>4</td>
</tr>
<tr>
<td>PLW 200 Aerospace Engineering or</td>
<td>4</td>
</tr>
<tr>
<td>PLW 225 Civil Engineering and Architecture or</td>
<td>4</td>
</tr>
<tr>
<td>PLW 250 Computer Integrated Manufacturing</td>
<td>4</td>
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<tr>
<td>PLW 295 Engineering Design and Development</td>
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</table>

**Total Credits**: 20

### Radiography

This program prepares the individual to become a radiographer. The radiographer is prepared to administer ionization radiating for medical diagnostic imaging purposes. Emphasis is on radiation protection and quality patient care. The curriculum is comprised of specialized courses in radiography with concentrated study in the basic sciences, mathematic and general education. Students enrolled in the Radiography program must achieve a minimum grade of "C" in each Radiography course, required national science course, and quantitative reasoning course. Upon completion of the program, the graduate is eligible to take the American Registry of Radiologic Technologists (ARRT) registry examination to become a registered radiographer. Radiographers may find positions in hospitals, health clinics, and physicians’ offices. 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; or DMI 110 and certification must be kept current throughout the program. Note: Documentation of digital literacy as defined by KCTCS is required prior to admission to IMG courses.

Advanced Imaging in Radiography focuses on the areas of Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) in the Radiological Sciences. Didactic and clinical instruction prepares the technologist to work in the areas of CT and MRI in the healthcare setting and to sit for the Advanced Board Exams given by the American Registry of Radiologic Technologists. These courses are offered for technologists who are currently registered by the American Registry of Radiologic Technologists in Radiography or the Nuclear Medicine Technology Certification Board in Nuclear Medicine, or students who have completed one year and are currently enrolled in a creditable 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 - 510911701

*(Offered at BLC, HZC, OW)*

**General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 137 Human Anatomy &amp; Physiology I</td>
<td>4</td>
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<tr>
<td>BIO 139 Human Anatomy &amp; Physiology II</td>
<td>4</td>
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<tr>
<td>MAT 150 College Algebra OR</td>
<td>3</td>
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<tr>
<td>Higher Level Quantitative Reasoning Course</td>
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**Subtotal**: 20

**Pathway 1 – 510911701**

*(Offered at BLC, HZC, OW)*

**Additional General Education:**

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PHY 172 Physics for Health Sciences OR</td>
<td>2</td>
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<tr>
<td>PHY 152 Introduction to Physics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>PHY 171 Applied Physics</td>
<td>(4)</td>
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**Subtotal**: 2-4

**Support Course:**

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CLA 131 Medical Terminology from Greek &amp; Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115 Medical Terminology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>AHS 120 Medical Terminology</td>
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**Subtotal**: 1-3

**Technical Courses:**

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IMG 100 Radiography I</td>
<td>7</td>
</tr>
<tr>
<td>IMG 101 Clinical I</td>
<td>4</td>
</tr>
<tr>
<td>IMG 110 Radiography II</td>
<td>7</td>
</tr>
<tr>
<td>IMG 111 Clinical II</td>
<td>4</td>
</tr>
<tr>
<td>IMG 201 Clinical III</td>
<td>3</td>
</tr>
<tr>
<td>IMG 210 Radiography IV</td>
<td>4</td>
</tr>
<tr>
<td>IMG 211 Clinical IV</td>
<td>6</td>
</tr>
<tr>
<td>IMG 220 Radiography V</td>
<td>4</td>
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<tr>
<td>IMG 221 Clinical V</td>
<td>6</td>
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**Subtotal**: 45

**Total Credits Pathway 1**: 68-72

**Pathway 2 – 510911702**

*(Offered at ELC, HPC, JFC, MDC)*

**Additional General Education:**

<table>
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<tbody>
<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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**Subtotal**: 3-4

**Technical Courses:**

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<th>Course</th>
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<tbody>
<tr>
<td>AHS 120 Medical Terminology OR</td>
<td>1</td>
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<tr>
<td>AHS 115 Medical Terminology</td>
<td>(3)</td>
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<tr>
<td>AHS 104 Introduction to Radiography</td>
<td>2</td>
</tr>
<tr>
<td>IMG 106 Patient Care in Radiography*</td>
<td>2</td>
</tr>
<tr>
<td>IMG 108 Radiographic Procedures I</td>
<td>4</td>
</tr>
<tr>
<td>IMG 109 Clinical Practice I</td>
<td>1</td>
</tr>
<tr>
<td>IMG 114 Image Production and Acquisition</td>
<td>2</td>
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<tr>
<td>IMG 116 Advanced Patient Care in Radiography</td>
<td>2</td>
</tr>
<tr>
<td>IMG 118 Radiographic Procedures II</td>
<td>4</td>
</tr>
<tr>
<td>IMG 119 Clinical Practice II</td>
<td>3</td>
</tr>
<tr>
<td>IMG 209 Clinical Practice III</td>
<td>3</td>
</tr>
<tr>
<td>IMG 214 Imaging Equipment</td>
<td>2</td>
</tr>
<tr>
<td>IMG 216 Basic Computed Tomography</td>
<td>1</td>
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<tr>
<td>IMG 219 Clinical Practice IV</td>
<td>6</td>
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<tr>
<td>IMG 224 Radiation Protection &amp; Biology</td>
<td>2</td>
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<tr>
<td>IMG 226 Radiography Pathology</td>
<td>1</td>
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<tr>
<td>IMG 228 Radiography Seminar</td>
<td>2</td>
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<td>IMG 229 Clinical Practice V</td>
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**Subtotal**: 44-46

**Total Credits Pathway 2**: 67-70

*NAA 100 may be substituted for IMG 106.*
## Technical Courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>DMI 102</td>
<td>Medical Terminology for Radiography*</td>
<td>1</td>
</tr>
<tr>
<td>DMI 106</td>
<td>Patient Care and Ethics for Radiographers</td>
<td>3</td>
</tr>
<tr>
<td>DMI 108</td>
<td>Radiographic Positioning and Procedures I</td>
<td>4</td>
</tr>
<tr>
<td>DMI 110</td>
<td>Radiography Practicum I</td>
<td>1</td>
</tr>
<tr>
<td>DMI 114</td>
<td>Principles of X-Ray Production, Exposure, and Image Production</td>
<td>4</td>
</tr>
<tr>
<td>DMI 115</td>
<td>Pharmacology for Radiographers</td>
<td>2</td>
</tr>
<tr>
<td>DMI 118</td>
<td>Radiographic Positioning and Procedures II</td>
<td>4</td>
</tr>
<tr>
<td>DMI 120</td>
<td>Radiography Practicum</td>
<td>2</td>
</tr>
<tr>
<td>DMI 128</td>
<td>Radiographic Positioning and Procedures III</td>
<td>3</td>
</tr>
<tr>
<td>DMI 130</td>
<td>Radiography Practicum III</td>
<td>2</td>
</tr>
<tr>
<td>DMI 214</td>
<td>Radiographic Equipment and Quality Control</td>
<td>4</td>
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<tr>
<td>DMI 220</td>
<td>Radiography Practicum IV</td>
<td>4</td>
</tr>
<tr>
<td>DMI 222</td>
<td>Image Analysis</td>
<td>2</td>
</tr>
<tr>
<td>DMI 224</td>
<td>Radiation Protection and Biology</td>
<td>2</td>
</tr>
<tr>
<td>DMI 226</td>
<td>Radiographic Anatomy and Physiology</td>
<td>3</td>
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<tr>
<td>DMI 228</td>
<td>Seminars in Radiography</td>
<td>3</td>
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<tr>
<td>DMI 230</td>
<td>Radiography Practicum V</td>
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**Subtotal:** 48

### Certificate

**Advanced Imaging in Radiography- 5109113029**

#### Core

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>IMG 230</td>
<td>Sectional Anatomy for Advanced Imaging</td>
<td>3</td>
</tr>
<tr>
<td>IMG 240</td>
<td>Pathology for Advanced Medical Imaging Modalities</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal:** 6

*Must Select One of the Tracks Below to complete the certificate.*

#### Computed Tomography Track – 510911301

*(Offered at ELC, HZC, JFC, SEC)*

<table>
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<th>Code</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>IMG 250</td>
<td>Computed Tomography Physics and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>IMG 260</td>
<td>Computed Tomography Imaging Procedures</td>
<td>3</td>
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</table>

**Subtotal:** 6

**Total Credits:** 12

#### Computed Tomography with Clinical Track – 510911302

*(Offered at JFC, SMC, WKY)*

<table>
<thead>
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<tbody>
<tr>
<td>IMG 250</td>
<td>Computed Tomography Physics and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>IMG 260</td>
<td>Computed Tomography Imaging Procedures</td>
<td>3</td>
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<tr>
<td>IMG 285</td>
<td>Computed Tomography Clinical Practice I</td>
<td>4</td>
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**Subtotal:** 10

**Total Credits:** 16

#### Magnetic Resonance Imaging Track – 510911303

*(Offered at ELC, HZC, JFC, SEC)*

<table>
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<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMG 255</td>
<td>Magnetic Resonance Physics and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>IMG 265</td>
<td>Magnetic Resonance Imaging Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal:** 6

**Total Credits:** 12

---

### 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 examinations to earn the Certified Respiratory Therapist (CRT) credential and 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: Digital literacy must be documented by competency exam or by completing a digital literacy course.*

Note: Hours Exception (67-70 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.

### Associate in Applied Science

#### Respiratory Therapist - 5109087089

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

<table>
<thead>
<tr>
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<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I*</td>
<td>4</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II*</td>
<td>4</td>
</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>ENG 101</td>
<td>Writing I*</td>
<td>3</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
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<tr>
<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
<td>3</td>
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<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
<td>4</td>
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<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I*</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II*</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
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<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>ENG 101</td>
<td>Writing I*</td>
<td>3</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
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<tr>
<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
<td>3</td>
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<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
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**Recommended Additional Course(s)**

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<tbody>
<tr>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
</tr>
<tr>
<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
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**Technical Courses**

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<tbody>
<tr>
<td>RCP 110</td>
<td>Cardiopulmonary Anatomy &amp; Physiology</td>
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<tr>
<td>RCP 120</td>
<td>Theory &amp; Principles of Respiratory Care OR</td>
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<tr>
<td>RCP 122</td>
<td>Fundamentals of Respiratory Care#</td>
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<tr>
<td>RCP 125</td>
<td>Cardiopulmonary Evaluation OR</td>
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<td>RCP 140</td>
<td>Cardiopulmonary Assessment#</td>
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<td>RCP 130</td>
<td>Pharmacology OR</td>
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<td>HST 121</td>
<td>Pharmacology**</td>
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<tr>
<td>RCP 150</td>
<td>Clinical Practice I OR</td>
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<td>HST 101</td>
<td>Basic Skills I** OR</td>
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<td>RCP 121</td>
<td>Respiratory Care Practice I#</td>
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<td>RCP 175</td>
<td>Clinical Practice II OR</td>
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<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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<td>RCP 190</td>
<td>Advanced Ventilatory Support OR</td>
</tr>
<tr>
<td>RCP 185</td>
<td>Introduction to Mechanical Ventilation# AND</td>
</tr>
<tr>
<td>RCP 195</td>
<td>Patient-Ventilator System Management#</td>
</tr>
<tr>
<td>RCP 200</td>
<td>Clinical Practices III OR</td>
</tr>
<tr>
<td>RCP 201</td>
<td>Respiratory Care Practice III#</td>
</tr>
<tr>
<td>RCP 204</td>
<td>Emergency and Special Procedures AND</td>
</tr>
</tbody>
</table>
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 safes and locks. This program will provide the technician with the training to service, maintain and troubleshoot safes and locks. Topics covered are electronic access control systems, safe lock servicing and surveys, contingency planning, and acts of violence. Instruction in all aspects of safe and lock servicing, locks and locking devices, safe and safe hardware, security hardware, electronic and mechanical door locks.

For all programs: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI.

**Certificates**

**Electrocardiographic and Cardiac Monitoring Technician - 5109083049**

*(Offered at BLC, BSC, ELC, JFC, 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>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>RCP 110</td>
<td>Cardiopulmonary Anatomy &amp; Physiology</td>
<td>3</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 150</td>
<td>Clinical Practice I** OR</td>
<td>2</td>
</tr>
<tr>
<td>RCP 121</td>
<td>Respiratory Care Practice I** OR</td>
<td>1</td>
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<tr>
<td>HST 101</td>
<td>Basic Skills I**+</td>
<td>3</td>
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**Total Credits 17-21**

* General Education Course
** May not be accepted at Elizabethtown CTC or Madisonville CC for Respiratory Care degree program credit.
+ In addition Twenty (20) hours of documented clinical Electrocardiographic experience or documented Electrocardiographic & Cardiac Monitoring Competence is required.

**Technical Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSG 100</td>
<td>Introduction to Polysomnography</td>
<td>2</td>
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<tr>
<td>PSG 110</td>
<td>Polysomnography Level I</td>
<td>3</td>
</tr>
<tr>
<td>PSG 111</td>
<td>Polysomnography Lab I</td>
<td>1</td>
</tr>
<tr>
<td>PSG 115</td>
<td>Polysomnography Practice I</td>
<td>3</td>
</tr>
<tr>
<td>PSG 130</td>
<td>Polysomnography Level II</td>
<td>3</td>
</tr>
<tr>
<td>PSG 131</td>
<td>Polysomnography Lab II</td>
<td>1</td>
</tr>
<tr>
<td>PSG 133</td>
<td>Polysomnography Practice II</td>
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**Total Credits 19**

* General Education Course

**Polysonomographic Technologist - 5109083069**

<table>
<thead>
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<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I*</td>
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</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>
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<td>AHS 115</td>
<td>Medical Terminology</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSG 100</td>
<td>Introduction to Polysomnography</td>
<td>2</td>
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<tr>
<td>PSG 110</td>
<td>Polysomnography Level I</td>
<td>3</td>
</tr>
<tr>
<td>PSG 111</td>
<td>Polysomnography Lab I</td>
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<tr>
<td>PSG 115</td>
<td>Polysomnography Practice I</td>
<td>3</td>
</tr>
<tr>
<td>PSG 130</td>
<td>Polysomnography Level II</td>
<td>3</td>
</tr>
<tr>
<td>PSG 131</td>
<td>Polysomnography Lab II</td>
<td>1</td>
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<tr>
<td>PSG 133</td>
<td>Polysomnography Practice II</td>
<td>3</td>
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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>LSI 150</td>
<td>Professional Industrial Locksmithing</td>
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<tr>
<td>LSI 153</td>
<td>Safe Lock Servicing</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>Electives</td>
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**Total Credits 36**

* General Education Course
Electives: A minimum of 10 credit hours must be taken from this list of electives.

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<tr>
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<th>Credits</th>
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<tr>
<td>LSI 110</td>
<td>Security Surveys</td>
<td>2</td>
</tr>
<tr>
<td>LSI 130</td>
<td>GSA: Lock, Vault &amp; Container</td>
<td>4</td>
</tr>
<tr>
<td>LSI 151</td>
<td>Basic Safe Penetration</td>
<td>1</td>
</tr>
<tr>
<td>LSI 152</td>
<td>Combination Lock Manipulation</td>
<td>1</td>
</tr>
<tr>
<td>LSI 160</td>
<td>Fundamentals of Electricity</td>
<td>2</td>
</tr>
<tr>
<td>LSI 170</td>
<td>Electronic Access Control</td>
<td>2</td>
</tr>
<tr>
<td>LSI 182</td>
<td>Managing Security Operations</td>
<td>2</td>
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**Security Management Coordinator - 4301123010**

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<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>
<tr>
<td>Total Credits</td>
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Electives: A minimum of 3 credit hours must be taken from this list of electives:

<table>
<thead>
<tr>
<th>Course Code</th>
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<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>1</td>
</tr>
<tr>
<td>LSI 160</td>
<td>Fundamentals of Electricity</td>
<td>2</td>
</tr>
<tr>
<td>LSI 170</td>
<td>Electronic Access Control</td>
<td>2</td>
</tr>
<tr>
<td>LSI 180</td>
<td>Security and Crime Prevention Management</td>
<td>1</td>
</tr>
<tr>
<td>LSI 185</td>
<td>Security and Crime Prevention Countermeasures</td>
<td>1</td>
</tr>
<tr>
<td>LSI 190</td>
<td>Security Hardware &amp; Bypass Techniques</td>
<td>1</td>
</tr>
<tr>
<td>LSI 195</td>
<td>Tactical Lock (restricted enrollment)</td>
<td>8</td>
</tr>
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</table>

**Social Media Marketing**

The Social Media Marketing program will provide students who are interested in social media technology, and the specific way it can be utilized for maximizing visibility and functionality within the business sector, a holistic approach to running a social media marketing campaign. This program will provide not only an introduction to social media technology, but also a foundation for students to learn everything from terminology to multi-platform engagement techniques.

**Certificate**

Social Media Marketing -1110053009

(Offered at ELC, MDC, SEC)

**General Education Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 125</td>
<td>Social Media Marketing: Fundamental Concepts, Skills and Strategies</td>
<td>3</td>
</tr>
<tr>
<td>BAS 126</td>
<td>Social Media Marketing: Project Management and Implementation Strategies</td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

**Surgical First Assisting**

The Surgical First Assistant provides aid in exposure, hemostasis, and other technical functions that will help the surgeon carry out a safe operation with optimal results for the patient. This role will vary considerably with the surgical operation, specialty area, and type of facility. Clinical skills performed under direct supervision of the surgeon include the following: positioning the patient, preparing the skin, providing visualization of the operative site, utilizing appropriate techniques to assist with hemostasis, participating in volume replacement or auto transfusion techniques as appropriate, utilizing appropriate techniques in the closure of body planes, selecting and applying appropriate wound dressings and providing assistance in securing drainage system to tissue.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical First Assistant Program are required to achieve a minimum grade of “C” in each Surgical First Assistant course. Graduates from the program are eligible to take the certifying exams offered by the National Surgical Assistant Association (CSA) or the National Board of Surgical Technologists and Surgical Assistants (CSFA).

**Associate in Applied Science**

Surgical First Assisting - 5109097039

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences course</td>
<td></td>
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<tr>
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**Technical Courses:**

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SUR 110</td>
<td>Digital Literacy</td>
<td>0-3</td>
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<tr>
<td>SUR 101</td>
<td>Surgical Technology Fundamentals</td>
<td>9</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>
<tr>
<td>SUR 201</td>
<td>Surgical Technology Skills Practicum II</td>
<td>6</td>
</tr>
<tr>
<td>SUR 275</td>
<td>Surgical Technology Advanced Clinical Practicum</td>
<td>2</td>
</tr>
<tr>
<td>SUR 280</td>
<td>Surgical Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>SUR 284</td>
<td>Principles of Surgical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>SUR 295</td>
<td>Surgical First Assistant Clinical</td>
<td>1</td>
</tr>
<tr>
<td>SUR 282</td>
<td>Perioperative Bioscience</td>
<td>3</td>
</tr>
<tr>
<td>SUR 296</td>
<td>Surgical First Assistant Practicum</td>
<td>3</td>
</tr>
<tr>
<td>SUR 297</td>
<td>Surgical First Assistant Practicum II</td>
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<tr>
<td>Subtotal</td>
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<td>45-48</td>
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</table>

**Total Credit Hours**

61-64

For program admission, student must be a certified Surgical Technologist or an RN with operating room experience OR consent of instructor.

For program admission, CPR or BLS certificate must be obtained prior to enrolling in the course; certification must be kept current throughout the program.

NOTE: BIO 137 & BIO 139 may be substituted for BIO 135.

**Certificate**

Surgical First Assisting - 5109093020

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SUR 280</td>
<td>Surgical Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>SUR 282</td>
<td>Perioperative Bioscience</td>
<td>3</td>
</tr>
<tr>
<td>SUR 284</td>
<td>Principles of Surgical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>SUR 295</td>
<td>Surgical First Assistant Clinical</td>
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<tr>
<td>SUR 296</td>
<td>Surgical First Assistant Practicum</td>
<td>3</td>
</tr>
<tr>
<td>SUR 297</td>
<td>Surgical First Assistant Practicum II</td>
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</tr>
<tr>
<td>Subtotal</td>
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</table>

CPR or BLS certificate must also be obtained prior to enrolling in the program; certification must be kept current throughout the program.

For program admission, student must be a certified Surgical Technologist or an RN with operating room experience. Student must provide current documentation of certificate/licensure.
Surgical Technology

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings such as medical offices, out-patient clinics, and the operating room.

The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works under the supervision of a surgeon to ensure that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety.

A surgical technologist possesses expertise in the theory and application of sterile and aseptic techniques and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician’s performance of invasive therapeutic and diagnostic procedures.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical Technology Program are required to achieve a minimum grade of "C" in each course required for the credential. Students who withdraw from or earn less than a "C" in any course with a Surgical Technology prefix will be dropped from the Surgical Technology program and must reapply for admission. CPR (for Healthcare Providers) course must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology program.

Students who have completed program requirements must sit for the certifying 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.nbstsa.org.

The following programs hold accreditation from the Commission on Accreditation of Allied Health Education Programs (CAAHEP) 25400 US Highway 19 N, Suite 158, Clearwater Florida 33763; (727) 210 2350; www.caahep.org who accredits programs upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), 6 West Dry Creek Circle, Suite 110, Littleton, CO 80120; Phone: (303) 694 9262; www.arcst.org; 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 - 5109090719
(Offered at BLC, BSC, HPC, HZC, JFC, MDC, OWC, SEC, SKY, SMWKC)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I</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>Quantitative Reasoning Course: MAT 110 or Higher</td>
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<td></td>
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<tr>
<td>Social/Behavioral Sciences</td>
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<td></td>
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<tr>
<td>Heritage/Humanities</td>
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Technical Courses:

<table>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CLA</td>
<td>Medical Terminology from Greek &amp; Latin OR</td>
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<tr>
<td>AHS</td>
<td>Medical Terminology OR</td>
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</tr>
<tr>
<td>MIT</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
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<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</td>
<td>Medical Microbiology OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
<td>(3)</td>
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<tr>
<td>BIO 227</td>
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<td>BIO 118</td>
<td>Microbes and Society</td>
<td>(3)</td>
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<tr>
<td>SUR</td>
<td>Surgical Technology Fundamentals Lab</td>
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</tr>
<tr>
<td>SUR 130</td>
<td>Principles of Surgical Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>SUR 200</td>
<td>Surgical Technology Advanced Theory</td>
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<td>BAS</td>
<td>Business Employability Seminar</td>
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A total of 10 credit hours must be completed from the following practicum courses:

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<td>SUR 125</td>
<td>Surgical Technology Skills Practicum I</td>
<td>2-3</td>
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<tr>
<td>SUR 201</td>
<td>Surgical Technology Skills Practicum II</td>
<td>6-7</td>
</tr>
<tr>
<td>SUR 275</td>
<td>Medical Technology Advanced Clinical Practicum</td>
<td>2</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>40-45</strong></td>
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</table>

Elective(s):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR</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</td>
<td>Pathophysiology for Medical Assistants</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS</td>
<td>Personal Finance</td>
<td>(3)</td>
</tr>
<tr>
<td>MNA</td>
<td>Medicaid Nurse Aide</td>
<td>(3)</td>
</tr>
<tr>
<td>NAA</td>
<td>Nursing Assistant Skills I</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Note:**

CPR certificate must be obtained prior to enrolling in the first Surgical Technology skills practicum course and must remain current throughout the Surgical Technology Program. Digital literacy must be demonstrated either by competency exam or by completing a digital literacy course.

Diploma

Surgical Technologist - 5109094019
(Offered at ASC, BSC, JFC, MDC, OWC, SEC)

General Education:

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
</tr>
<tr>
<td><strong>Area 2</strong></td>
<td><strong>7-11</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO</td>
<td>Basic Anatomy &amp; Physiology with Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II OR</td>
<td>(4)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>3</strong></td>
<td></td>
</tr>
</tbody>
</table>

Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLA</td>
<td>Medical Terminology from Greek &amp; Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT</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 OR</td>
<td>(9)</td>
</tr>
<tr>
<td>SUR 101</td>
<td>Surgical Technology Fundamentals Lab</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>
<tr>
<td>BAS</td>
<td>Business Employability Seminar</td>
<td>(1)</td>
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</tbody>
</table>
A total of 10 credit hours must be completed from the following practicum courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</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>
</tr>
</tbody>
</table>

Subtotal 38-48

Total Credits 45-59

Elective(s):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 103</td>
<td>Surgical Technology Didactic Practicum</td>
<td>(1)</td>
</tr>
<tr>
<td>SUR 270</td>
<td>Pathophysiology for the Surgical Technologist OR</td>
<td>(2)</td>
</tr>
<tr>
<td>MAI 200</td>
<td>Pathophysiology for the Medical Assistant</td>
<td>(3)</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>(3)</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
<td>(3)</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Note:

CPR certificate must be obtained prior to enrolling in the first Surgical Technology course and certification must be kept current throughout the Program.

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

Students successfully completing SUR 109 and SUR 110 are not required to take a microbiology course for the diploma option.

Certificates

Surveying and Mapping Technology - 5109093019

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</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

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics or</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
<td>(3)</td>
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</table>

Subtotal 15

Required Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Computer/Digital Literacy</td>
<td>3</td>
</tr>
<tr>
<td>SMT 110</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Principles of Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 160</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
<tr>
<td>SMT 160</td>
<td>Construction Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 210</td>
<td>Advanced Surveying Measurement</td>
<td>3</td>
</tr>
<tr>
<td>SMT 220</td>
<td>Surveying Lab</td>
<td>3</td>
</tr>
<tr>
<td>SMT 230</td>
<td>Land Boundary Location</td>
<td>3</td>
</tr>
<tr>
<td>SMT 250</td>
<td>Mine Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 270</td>
<td>Professional Ethics and Conduct for Land Surveyors</td>
<td>3</td>
</tr>
<tr>
<td>SMT 290</td>
<td>Boundary Law</td>
<td>3</td>
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</table>

Technical Electives Approved by Program Coordinator 12

Subtotal 45

AAS Total 60

Certificate

Surveying Technician III - 1511024029

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMT 130</td>
<td>Construction Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 160</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
<tr>
<td>SMT 210</td>
<td>Advanced Surveying Measurement</td>
<td>3</td>
</tr>
<tr>
<td>SMT 220</td>
<td>Surveying Lab</td>
<td>3</td>
</tr>
<tr>
<td>SMT 230</td>
<td>Land Boundary Location</td>
<td>3</td>
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</table>

Technical Electives Approved by Program Coordinator 9

Subtotal 33

Diploma Total 60

Certificate

Surveying Technician I - 1511023059

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMT 110</td>
<td>Computer/Digital Literacy</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Principles of Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
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Certificate Total 6

Surveying Technician II - 1511023069

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMT 110</td>
<td>Computer/Digital Literacy</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Principles of Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

Technical Electives Approved by Program Coordinator 3

Certificate Total 12
Teaching English to Speakers of Other Languages (TESOL)

This certificate program prepares individuals for entry and advancement within the profession of TESOL as English language teachers. Through nineteen (19) credit hours, students will be introduced to various concepts of what teaching English to speakers of other languages entails. Courses within the program cover how to incorporate dynamic and interactive teaching methods into the lesson plans, how adults acquire a second language, the characteristics of English language learners and factors impacting learning outcomes and teaching best practices with the inclusion of classroom observations and hands-on experience. Students who successfully complete this certification program are eligible and certified to domestically teach English to speakers of other languages at community organizations, such as Kentucky Refugee Ministries, or internationally teach English to speakers of other languages via programs, such as TaLK.

Certificate
TESOL - 1315013029
(Offered at)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT</td>
<td>Cultural Diversity in the Modern World</td>
<td>3</td>
</tr>
<tr>
<td>COM</td>
<td>Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>TES</td>
<td>Introduction to TESOL</td>
<td>3</td>
</tr>
<tr>
<td>TES</td>
<td>Second Language Literacy &amp; Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>TES</td>
<td>Methods &amp; Practices</td>
<td>3</td>
</tr>
<tr>
<td>TES</td>
<td>Second Language Teaching/Lab</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>19</td>
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</tbody>
</table>

Technical Theatre

The Technical Theatre Certificate will prepare students for an entry level position as a theatre technician and/or advanced technical theatre studies.

Certificates
Technical Theatre - 5005013019
(Offered at OWC)

General Education Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA</td>
<td>Introduction to Theatre: Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>COM</td>
<td>Basic Public Speaking (OR)</td>
<td>3</td>
</tr>
<tr>
<td>COM</td>
<td>Intro to Interpersonal Communication (OR)</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG</td>
<td>Writing I</td>
<td>(3)</td>
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<tr>
<td>Total</td>
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</table>

Technical Core

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA</td>
<td>Fundamentals of Production</td>
<td>3</td>
</tr>
<tr>
<td>THA</td>
<td>Stage Electrics</td>
<td>3</td>
</tr>
<tr>
<td>THA</td>
<td>Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>THA</td>
<td>Costuming and Make-up for the Stage</td>
<td>3</td>
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<tr>
<td>Total</td>
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</table>

Technical Electives (Select one of the following)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART</td>
<td>3-Dimensional Design</td>
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<tr>
<td>ELT</td>
<td>Circuits I</td>
<td></td>
</tr>
<tr>
<td>DFT</td>
<td>Drafting Fundamentals</td>
<td></td>
</tr>
<tr>
<td>WLD</td>
<td>Basic Welding B</td>
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</tr>
<tr>
<td>CAR</td>
<td>Introduction to Construction/Intro to Construction Lab</td>
<td>3/1</td>
</tr>
<tr>
<td>THA</td>
<td>Production Practicum</td>
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<tr>
<td>Total</td>
<td></td>
<td>19-24</td>
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</tbody>
</table>

Telehealth Technician Associate

Telemedicine is the provision of health care over a distance. This occurs through live interactive (synchronous) and store and forward (asynchronous) telemedicine using high-speed communication links, videoconference equipment and other communication devices, medical peripheral devices such as electronic stethoscopes to facilitate secure connectivity between patients and providers.

Certificate
Telehealth Technician Associate - 5107073069
(Offered at HZC, SEC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST</td>
<td>Health Care Delivery and Management</td>
<td>3</td>
</tr>
<tr>
<td>HST</td>
<td>Health Care Communications</td>
<td>2</td>
</tr>
<tr>
<td>HST</td>
<td>Health Care Basic Skills with Clinical</td>
<td>3.5</td>
</tr>
<tr>
<td>AHS</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>TEL</td>
<td>Telehealth Patient Care</td>
<td>4.5</td>
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<tr>
<td>Total</td>
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<td>16</td>
</tr>
</tbody>
</table>

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 ASC, BSC, ELC, GTW, HPC, HZC, MDC, SMC, SKY, WKC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRJ</td>
<td>Truck Driving</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6</td>
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</tbody>
</table>

Tractor Trailer, CDLA II - 4902053029
(Offered at JFC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNT</td>
<td>Basic Operations</td>
<td>3</td>
</tr>
<tr>
<td>TNT</td>
<td>Safe Operating Practices</td>
<td>3</td>
</tr>
<tr>
<td>TNT</td>
<td>Advanced Operating Practices</td>
<td>1</td>
</tr>
<tr>
<td>TNT</td>
<td>Vehicle Systems and Reporting Malfunction</td>
<td>3</td>
</tr>
<tr>
<td>TNT</td>
<td>Internship</td>
<td>4</td>
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Tractor Trailer, CDLA III - 4902053039
(Offered at BSC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRK</td>
<td>Driver Preparation</td>
<td>3</td>
</tr>
<tr>
<td>TRK</td>
<td>Trucking Safety</td>
<td>3</td>
</tr>
<tr>
<td>TRK</td>
<td>Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>TRK</td>
<td>Systems Check</td>
<td>1</td>
</tr>
<tr>
<td>TRK</td>
<td>Combined Driving</td>
<td>2</td>
</tr>
<tr>
<td>TRK</td>
<td>Advanced Driver Preparation</td>
<td>3</td>
</tr>
<tr>
<td>TRK</td>
<td>Advanced Trucking Safety</td>
<td>3</td>
</tr>
<tr>
<td>TRK</td>
<td>Advanced Controls</td>
<td>1</td>
</tr>
<tr>
<td>TRK</td>
<td>System Inspections</td>
<td>1</td>
</tr>
<tr>
<td>TRK</td>
<td>Advanced CDL Preparation</td>
<td>1</td>
</tr>
<tr>
<td>TRK</td>
<td>Advanced Combined Driving</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>
## Unmanned Systems Technology

The rapidly growing field of Unmanned Systems Technology (UST) enables students to gain knowledge and skills in advanced drone operator, first responder specialist, unmanned systems technician, and GIS/unmanned systems Specialist. This program prepares students for entry and advancement within the unmanned systems technology workforce (aerial, land, and water vehicles/robotics) field and to pilot unmanned aircrafts for private and commercial industries. The program also requires students to make reasonable predictions of how the current unmanned systems technology will integrate into existing careers.

### Associate in Applied Science

#### Unmanned Systems Technology- 4706097019

(Offered at HZC)

**General Education Core:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>COM 181 Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116 Technical Mathematics or higher (MAT 150 preferred)</td>
<td>3</td>
</tr>
<tr>
<td>POL 101 American Government</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences (Physics preferred except PHY 160)</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
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</table>

**Subtotal**

**18**

**Technical Core:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105 Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>DPT 100 Introduction to 3D Print Technology OR</td>
<td>3</td>
</tr>
<tr>
<td>CAD 100 Introduction to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 276 Introduction to Business Law</td>
<td>3</td>
</tr>
<tr>
<td>UST 100 Introduction to Unmanned Systems Technology</td>
<td>3</td>
</tr>
<tr>
<td>UST 105 Unmanned Systems Safety and Regulations</td>
<td>3</td>
</tr>
<tr>
<td>UST 107 Commercial Drone Applications</td>
<td>3</td>
</tr>
<tr>
<td>UST 299 UST Capstone Studies</td>
<td>1</td>
</tr>
</tbody>
</table>

**Subtotal**

**19**

### Advanced Drone Operator Track - 470609701

(Offered at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 125 Intro to Digital Maps</td>
<td>3</td>
</tr>
<tr>
<td>UST 221 Crew Resource Management</td>
<td>1</td>
</tr>
<tr>
<td>UST 290 UST Flight Mastery</td>
<td>2</td>
</tr>
<tr>
<td>UST 295 UST Learning Experience (Internship, etc.)</td>
<td>3</td>
</tr>
<tr>
<td>UST Electives</td>
<td>14</td>
</tr>
</tbody>
</table>

**Subtotal**

**23**

**Total Credits**

**60**

### First Responder Specialist Track - 470609702

(Offered at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSM 110 Introduction to Emergency Management OR</td>
<td>3</td>
</tr>
<tr>
<td>FRS 204 EMT First Responder</td>
<td>3</td>
</tr>
<tr>
<td>CIT 125 Intro to Digital Maps</td>
<td>3</td>
</tr>
<tr>
<td>GIS 145 Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>UST 220 First Responder Applications</td>
<td>2</td>
</tr>
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<td>UST 221 Crew Resource Management</td>
<td>1</td>
</tr>
<tr>
<td>UST Electives</td>
<td>11</td>
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</table>

**Subtotal**

**23**

**Total Credits**

**60**

### Unmanned Systems Technician Track - 470609703

(Offered at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 111 Computer Hardware and Software Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>CIT 160 Introduction to Networking</td>
<td>4</td>
</tr>
<tr>
<td>DPT 102 3D Printing Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>UST 200 Drone Fabrication and Repair</td>
<td>4</td>
</tr>
<tr>
<td>UST Electives</td>
<td>8</td>
</tr>
<tr>
<td>(take CAD 100 or CIT 105 if not taken in core)</td>
<td></td>
</tr>
</tbody>
</table>

**Subtotal**

**23**

**Total Credits**

**60**

### GIS/Unmanned Systems Specialist Track - 470609704

(Offered at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 125 Intro to Digital Maps</td>
<td>3</td>
</tr>
<tr>
<td>CIT 225 GIS Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GIS 145 Remote Setting</td>
<td>3</td>
</tr>
<tr>
<td>GIS 255 Geospatial Programming</td>
<td>3</td>
</tr>
<tr>
<td>GIS 260 Geospatial Web Mapping</td>
<td>3</td>
</tr>
<tr>
<td>UST Electives</td>
<td>8</td>
</tr>
</tbody>
</table>

**Subtotal**

**23**

**Total Credits**

**60**

### Certificates

#### Drone Operator Specialist - 4706093039

(Offered at HZC, JFC, MDC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105 Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>DPT 100 Introduction to 3D Print Technology OR</td>
<td>3</td>
</tr>
<tr>
<td>UST 100 Intro to Unmanned Systems Technology</td>
<td>3</td>
</tr>
<tr>
<td>UST 105 Unmanned Systems Safety and Regulations</td>
<td>3</td>
</tr>
<tr>
<td>UST 299 UST Capstone Studies</td>
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</tr>
<tr>
<td>UST Electives</td>
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**Total**

**19**

#### First Responder Specialist - 4706093049

(Offered at HZC, JFC, MDC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 105 Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>DPT 100 Introduction to 3D Print Technology OR</td>
<td>3</td>
</tr>
<tr>
<td>UST 100 Intro to Unmanned Systems Technology</td>
<td>3</td>
</tr>
<tr>
<td>UST 105 Unmanned Systems Safety and Regulations</td>
<td>3</td>
</tr>
<tr>
<td>UST 220 First Responder Applications</td>
<td>2</td>
</tr>
<tr>
<td>UST 221 Crew Resource Management</td>
<td>1</td>
</tr>
<tr>
<td>UST Electives</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**

**24**

#### GIS/Unmanned Systems Specialist- 4706093059

(Offered at HZC, JFC, MDC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105 Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>DPT 100 Introduction to 3D Print Technology OR</td>
<td>3</td>
</tr>
<tr>
<td>UST 100 Intro to Unmanned Systems Technology</td>
<td>3</td>
</tr>
<tr>
<td>UST 105 Unmanned Systems Safety and Regulations</td>
<td>3</td>
</tr>
<tr>
<td>UST 221 Crew Resource Management</td>
<td>1</td>
</tr>
<tr>
<td>UST Electives</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**

**21**
### UST Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 100</td>
<td>Intro to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>CAD 103</td>
<td>CAD Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CTT 105</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>CTT 111</td>
<td>Computer Hardware and Software Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>CTT 125</td>
<td>Intro to Digital Maps</td>
<td>3</td>
</tr>
<tr>
<td>CTT 160</td>
<td>Introduction to Networking</td>
<td>4</td>
</tr>
<tr>
<td>CTT 225</td>
<td>GIS Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 100</td>
<td>Intro to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>DPT 100</td>
<td>Intro to 3D Print Technology</td>
<td>3</td>
</tr>
<tr>
<td>DPT 102</td>
<td>3D Printing Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>DPT 150</td>
<td>Intro to Engineering Mechanics for 3D Printing</td>
<td>3</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I</td>
<td>2</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>GIS 145</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GIS 255</td>
<td>Geospatial Programming</td>
<td>3</td>
</tr>
<tr>
<td>GIS 260</td>
<td>Geospatial Web Mapping</td>
<td>3</td>
</tr>
<tr>
<td>UST 100</td>
<td>Intro to Unmanned Systems Technology</td>
<td>3</td>
</tr>
<tr>
<td>UST 102</td>
<td>UST Career Exploration</td>
<td>1</td>
</tr>
<tr>
<td>UST 105</td>
<td>Unmanned Systems Safety and Regulations</td>
<td>3</td>
</tr>
<tr>
<td>UST 107</td>
<td>Commercial Drone Operations</td>
<td>3</td>
</tr>
<tr>
<td>UST 170</td>
<td>Drone Media Applications</td>
<td>3</td>
</tr>
<tr>
<td>UST 200</td>
<td>Drone Fabrication and Repair</td>
<td>3</td>
</tr>
<tr>
<td>UST 220</td>
<td>First Responder Applications</td>
<td>2</td>
</tr>
<tr>
<td>UST 221</td>
<td>Crew Resource Management</td>
<td>1</td>
</tr>
<tr>
<td>UST 290</td>
<td>UST Flight Mastery</td>
<td>1-3</td>
</tr>
<tr>
<td>UST 295</td>
<td>UST Learning Experience</td>
<td>1-6</td>
</tr>
</tbody>
</table>

*Any course from the UST electives list can be used as an elective if not already required in the certificate.*

### 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 the nine domains included in the CVTEA.

**Essential and Recommended Skills:**
1. Office and Hospital Procedures, Client Relations, and Communication;
2. Pharmacy and Pharmacology;
3. Nursing;
4. Anesthesia;
5. Surgical Nursing;
6. Laboratory Procedures;
7. Imaging;
8. Laboratory Animal Procedures;

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 100</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>BIO 112</td>
<td>Introduction to Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 113</td>
<td>Introduction to Biology Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

### Social/Behavioral Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required/Technical Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>AGR 240</td>
<td>Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>AGR 280</td>
<td>Livestock Management</td>
<td>3</td>
</tr>
<tr>
<td>AHS 120</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>VET 108</td>
<td>Introduction to Veterinary Technology</td>
<td>4</td>
</tr>
<tr>
<td>VET 112</td>
<td>Veterinary Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>VET 116</td>
<td>Animal Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>VET 120</td>
<td>Clinical Practicum I</td>
<td>2</td>
</tr>
<tr>
<td>VET 135</td>
<td>Clinical Procedures I</td>
<td>5</td>
</tr>
<tr>
<td>VET 210</td>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>VET 220</td>
<td>Parasitology and Clinical Lab Techniques</td>
<td>5</td>
</tr>
<tr>
<td>VET 235</td>
<td>Clinical Procedures II</td>
<td>4</td>
</tr>
<tr>
<td>VET 245</td>
<td>Clinical Procedures III</td>
<td>5</td>
</tr>
<tr>
<td>VET 250</td>
<td>Clinical Practicum II</td>
<td>5</td>
</tr>
</tbody>
</table>

**Subtotal** 51

**AAS Total** 70
Visual Communication

Four programs are offered under the broader heading of Visual Communication. They are Communication Arts Technology, Design & Technology, Multimedia, and Printing.

Visual Communication: Communication Arts Technology

The Communication Arts Technology program provides students with the knowledge, skills, and a portfolio needed for entry-level employment as a graphic designer, commercial photographer, web designer, videographer, or video editor. These fields involve the use of specialized software combined with creativity, design, and problem solving skills to communicate an effective visual message for TV, web and interactive media, product packaging, and advertising layout. This program focuses on developing the creativity and software skills necessary to be competitive in these fields. Many courses include hands-on lab hours with one-on-one assistance from the instructors. The program is completed with an internship in the student’s specialty field that allows the student to transfer academic skills to a professional environment. Students and graduates of the Communication Arts Technology program have won numerous design, photography, and video awards in the creative industry.

Employment of graphic designers, photographers, web designers, videographers, and video editors is expected to grow as demand for their products continues to increase from advertisers, publishers, video production studios, and computer design firms. Graduates may be employed as graphic designers at newspapers, print shops, advertising agencies, photographic studios, multimedia shops, web design shops, television broadcasting stations, film and video production studios, department stores, corporations or non-profit agencies.

All technical courses must be completed with “C” (2.0) or greater to advance in Visual Communication programs.

Associate in Applied Science

Communication Arts Technology - 5004067019

(Offered at JFC)

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 105</td>
<td>Renaissance Through Modern Art History</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
<td></td>
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<tr>
<td>Total General Education Requirements</td>
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</table>

Core Communication Art Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 150</td>
<td>Mac Basics OR any Computer/Digital Literacy equivalent*0-3</td>
<td>3</td>
</tr>
<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
<td>3</td>
</tr>
<tr>
<td>ART 110</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 132</td>
<td>Illustration for Advertising</td>
<td>3</td>
</tr>
<tr>
<td>VCA 170</td>
<td>Advertising Design I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 171</td>
<td>Advertising Design II</td>
<td>3</td>
</tr>
<tr>
<td>VCA 160</td>
<td>Commercial Photography I</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCA 252</td>
<td>Digital Filmmaking I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 250</td>
<td>Commercial Photography III</td>
<td>3</td>
</tr>
<tr>
<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298</td>
<td>Practicum</td>
<td>4</td>
</tr>
<tr>
<td>Total Credit Hours for Advertising Design Track</td>
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<td></td>
</tr>
</tbody>
</table>

Total Credit Hours for Advertising Design Track | 63-66 |

Total Credit Hours for Commercial Photography Track | 63-66 |

Digital Filmmaking Track - 500406703

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCM 220</td>
<td>2D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 230</td>
<td>Advanced Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>VCM 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCM 298</td>
<td>Practicum</td>
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</tr>
<tr>
<td>Total Credit Hours for Digital Filmmaking Track</td>
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</tbody>
</table>

Total Credit Hours for Digital Filmmaking Track | 65-68 |

Webpage Design Track - 500406704

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 205</td>
<td>Introduction to HTML OR</td>
<td>3</td>
</tr>
<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
<td>3</td>
</tr>
<tr>
<td>CT 155</td>
<td>Web Page Development</td>
<td>3</td>
</tr>
<tr>
<td>IME 180</td>
<td>Intermediate Web Design</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 230</td>
<td>Advanced Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>CT 140</td>
<td>JavaScript I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298</td>
<td>Practicum</td>
<td>4</td>
</tr>
<tr>
<td>Total Credit Hours for Webpage Design Track</td>
<td>64-67</td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours for Webpage Design Track | 64-67 |

*Either successfully passing computer competency exam or taking an approved computer/digital literacy course.

Advance in Visual Communication programs.

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)
Visual Communication: Design & Technology

Design & Technology emphasizes creative problem solving and insight into the mix of art, design and technical competence. This program includes a Graphic Design track, a Mixed Media Design track, and a Production Design track, with a core of courses common to all. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to design concepts and computer graphics. In addition to core courses, students will take specialty courses for their selected track.

The Graphic Design track emphasizes several aspects of graphic design and focuses on the development of creative skills and technical skills to design logos, advertising, packaging, and a wide variety of publication materials.

The Mixed Media Design track provides students with a mix of courses within the visual communication program or approved electives that serves the interests and skills of the student. These courses may include web design, animation, printing & graphics production, photography, and video production.

The Production Design track provides students training in the operations of various printing and graphics production equipment, along with finishing and bindery equipment. Students will learn skills to design and produce a wide variety of printed materials, promotional items, and signage; in addition to proper prepress and file preparation procedures.

Students also have a variety of certificates they may earn in the process of completing their AAS degree. These certificates include: Design Assistant, Digital Photography, Graphic Design, Production Design, Mixed Media Design, Screen Printing, Digital Wraps and Entrepreneurial Certificate in Visual Communication.

Prospective employment opportunities are in communication and advertising agencies, news media, printing and signage companies, public relations departments, and other creative services departments and businesses, including web design and video production studios. Students also have many options if they desire to become an entrepreneur in the visual communication field.

All technical courses must be completed with a ‘C’ (2.0) or greater to advance in all Visual Communication programs.
Diplomas

Graphic Design - 5004094059
(Offered at BSC)

Required General Education

- Written Communication OR .......... 3
- Oral Communications OR ............ 3
- Humanities/Heritage .................. 3
- Quantitative Reasoning OR .......... 3
- Natural Sciences OR .................. 3
- Social/Behavioral Sciences .......... 3
- Total ................................. 6

Required Technical Core:

- VCA 108 Color Theory .......... 3
- VCA 280 Professional Portfolio Development .......... 3
- VCC 100 Introduction to Visual Communication .......... 3
- VCC 106 Typography ............. 3
- VCC 110 Design Concepts ........ 3
- VCC 125 Computer Graphics I .......... 3
- VCC 166 Photoshop Basics .......... 3
- VCC 200 Illustrator Basics .......... 3
- VCC 220 InDesign Basics .......... 3
- VCC 297 Internship .......... 3
- Total Credits for Graphic Design Track Diploma .......... 54

Mixed Media Design Track – 500409402
(Offered at BSC)

- VCC 235 Graphic Design I .......... 3
- VCC 245 Graphic Design II .......... 3
- VCC 255 Emerging Media Design .......... 3
- VCC 265 Graphic Design III .......... 3
- VCC 275 Digital Production OR ........ 3
- Approved Technical Elective .......... 3
- Total Credits for Mixed Media Design Track Diploma .......... 54

Production Design Track – 500409403
(Offered at BSC)

- VCC 214 Production Design I ............ 3
- VCC 216 Production Design II OR ............ 3
- VCP 250 Screen Printing .......... 3
- VCC 218 Production Design III .......... 3
- VCC 275 Digital Production .......... 3
- VCC 285 Production Design IV .......... 3
- Approved Technical Electives .......... 3
- Total Credits for Production Design Track Diploma .......... 54

Certificates

Entrepreneurial Certificate in Visual Communication - 5004093149
(Offered at WKC)

- BAS 160 Introduction to Business .......... 3
- BAS 170 Entrepreneurship .......... 3
- VCC 100 Introduction to Visual Communication .......... 3
- VCC 110 Design Concepts .......... 3
- VCC 125 Computer Graphics I .......... 3
- VCC 233 Graphic Design I .......... 3
- Total Credits for Graphic Design Certificate .......... 30

Design Assistant – 5004093019
(Offered at BSC)

- VCC 106 Typography .......... 3
- VCA 108 Digital Color Theory .......... 3
- VCC 110 Design Concepts .......... 3
- VCC 125 Computer Graphics I .......... 3
- Total Credits for Design Assistant Certificate .......... 15

Digital Photography – 5004093069
(Offered at BSC, SMC)

- VCA 120 Digital Photography I .......... 3
- VCC 135 Photo Editing for Photography OR .......... 3
- VCA 108 Digital Color Theory .......... 3
- VCC 166 Photoshop Basics .......... 3
- VCC 131 Digital Photography II OR .......... 3
- VCC 266 Advanced Photoshop .......... 3
- Total Credits for Digital Photography Certificate .......... 12

Digital Wraps – 5004093139
(Offered at WKC)

- VCC 110 Design Concepts .......... 3
- VCC 125 Computer Graphics I .......... 3
- VCC 166 Photoshop Basics .......... 3
- VCC 200 Illustrator Basics .......... 3
- VCC 214 Production Design I .......... 3
- VCC 285 Production Design IV .......... 3
- Total Credits for Digital Wraps Certificate .......... 18

Graphic Design – 5004093119
(Offered at WKC)

- VCA 108 Digital Color Theory .......... 3
- VCC 100 Introduction to Visual Communication .......... 3
- VCC 106 Typography .......... 3
- VCC 110 Design Concepts .......... 3
- VCC 125 Computer Graphics I .......... 3
- VCC 233 Graphic Design I .......... 3
- VCC 245 Graphic Design II .......... 3
- VCC 255 Emerging Media Design .......... 3
- VCC 265 Graphic Design III .......... 3
- Total Credits for Graphic Design Certificate .......... 30

Mixed Media Design – 5004093099
(Offered at BSC)

- VCC 110 Design Concepts .......... 3
- VCC 125 Computer Graphics I .......... 3
- Total Credits for Mixed Media Design Certificate .......... 18
### Visual Communication: Multimedia

The Visual Communication: Multimedia program provides students the necessary skills to prepare and produce a wide variety of multimedia presentations. This program includes tracks in Animation, Web Design, Digital Design, Video Production, and Multimedia. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to typography, design concepts, color theory, and computer graphics. In addition to core courses, students will take specialty courses for their selected track.

Prospective employment opportunities are in advertising agencies, graphic design studios, news media, printing and signage companies, department stores, and other creative services departments and businesses, including web design and video production studios.

All technical courses must be completed with "C" (2.0) or greater to advance in all Visual Communication programs.

### Associate in Applied Science

**Multimedia - 1003047019**

(Offered at HZC, SMC, WKC)

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**Subtotal** 15
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**Subtotal** 33

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**Animation Track - 100304701**

*(Offered at WKC)*

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*Approved Technical Electives* 9

**Subtotal** 15

**Total Credits for AAS: Multimedia - Animation Track** 63

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**Digital Design Track - 100304703**

*(Offered at SMC, WKC)*

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*Approved Technical Electives* 12

**Subtotal** 15

**Total Credits for AAS: Multimedia - Digital Design Track** 63

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**Multimedia Track – 100304706**

*(Offered at HZC, WKC)*

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**Subtotal** 15

**Total Credits for AAS: Multimedia – Multimedia Track** 63

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**Video Production Track - 100304705**

*(Offered at HZC, WKC)*

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**Subtotal** 15

**Total Credits for AAS: Multimedia – Video Production Track** 63

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**Web Design Track - 100304702**

*(Offered at HZC, WKC)*

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**Subtotal** 15

**Total Credits for AAS: Multimedia - Web Design Track** 63

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**Subtotal** 6

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**Required Technical Core**

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**Subtotal** 33

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**Animation Track - 100304403**

*(Offered at HZC, WKC)*

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*Approved Technical Elective* 3

**Subtotal** 15

**Total for Animation Track** 54

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**Digital Design Track - 100304404**

*(Offered at SMC, WKC)*

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*Approved Technical Electives* 12

**Subtotal** 15

**Total for Digital Design Diploma** 54

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**Multimedia Track - 100304401**

*(Offered at WKC)*

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**Subtotal** 15

**Total for Multimedia Track** 54

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**Video Production Track - 100304406**

*(Offered at HZC, WKC)*

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**Total for Video Production Track** 54
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### Video Production- 1003043069
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### Web Design - 1003043039
(Offered at BSC, HZC, SMC,WKC)

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<tr>
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<tr>
<td>VCC 110</td>
<td>Design Concepts</td>
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*Approved Technical Electives

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<td>VCA 152</td>
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Visual Communication: Printing

Printing is an option under the broader heading of Visual Communication. The Digital Production Artist curriculum emphasizes technical competence to better prepare students for successful careers in designing and preparing artwork for the print media. Laboratory experiences in page layout, computer illustration, photo imaging, and PDF files are combined with foundation courses in design. All technical courses must be completed with 'C' (2.0) or greater to advance in all Visual Communication programs.

**Associate in Applied Science**

**Printing - 1003017019**

**General Education Requirements**

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<th>Course</th>
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**Total for AAS Visual Communication: Printing-Digital Production Artist**

60-63

**Diplomas**

**Digital Production Artist - 1003014019**

**General Education Requirements**

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<td>Quantitative Reasoning OR</td>
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<td>Special Topics Lab</td>
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**Total for Digital Production Artist Diploma**

48-51

**Certificates**

**Digital Imaging Assistant - 1003013059**

**Technical or Support Courses**

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**Digital Production Assistant - 1003013019**

**Technical or Support Courses**

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<td>VCC 105</td>
<td>Fundamentals of Typography and Design</td>
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218
The Welding Technology Program is dedicated to welding education, technology and student success. Students in this program will learn various welding techniques, careers and the skills needed to be successful in the Welding Technology field. Welding occupations are primarily concerned with joining, surfacing, or repairing structures or parts made of metal or other weldable materials. The skills and knowledge needed to determine the appropriate welding technique required for a specific project and to successfully perform that technique are gained through course work and practical experience. The program offers a wide range of credentials including the Associate in Applied Science Degree, Diploma, and eleven certificates in Welding Technology.

### Associate in Applied Science

#### Welding Technology - 4805087019

*(Offered at BLC, BSC, ELC, GTW, JFC, MDC, OWC, SKY)*

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<tr>
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<td>MAT 116</td>
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<td>MAT 146</td>
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<td>MA 109</td>
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**General Education Total Credits** 18-19

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<td>WLD 110</td>
<td>Cutting Processes</td>
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<td>WLD 101</td>
<td>Oxy-Fuel Systems Lab OR</td>
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<td>Cutting Processes Lab OR</td>
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<td>WLD 120</td>
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<td>WLD 121</td>
<td>Shielded Metal Arc Welding (SMAW) Fillet Lab</td>
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<td>Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR</td>
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**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, JFC, MDC, OWC, SEC, SKY, SMC,WKC)*

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<td>MAT 116</td>
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<td>MAT 146</td>
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<td>MAT 150</td>
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**General Education Total Credits** 6

#### Required

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<td>WLD 110</td>
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<td>WLD 101</td>
<td>Oxy-Fuel Systems Lab OR</td>
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<td>WLD 111</td>
<td>Cutting Processes Lab OR</td>
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<td>WLD 121</td>
<td>Shielded Metal Arc Welding (SMAW) Fillet Lab</td>
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**Subtotal** 36-42

#### Total Credits 48-55

*Technical Electives:

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<td>Gas Metal Arc Welding Aluminum Lab</td>
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<td>Welding Automation Lab</td>
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<td>Pipe Fitting and Template Development Lab</td>
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**Subtotal** 6-13

*This list is not all inclusive. Other courses may be approved at the discretion of the program coordinator.*
Certificates

**ARC Cutter - 4805083099**

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

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<td><strong>5</strong></td>
</tr>
</tbody>
</table>

**ARC Welder - 4805083029**

(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>
</tr>
</thead>
<tbody>
<tr>
<td>WLD 100 Oxy-Fuel Systems OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 110 Cutting Processes Lab</td>
<td>2</td>
</tr>
<tr>
<td>WLD 111 Cutting Processes Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 120 Shielded Metal Arc Welding (SMAW)</td>
<td>2</td>
</tr>
<tr>
<td>WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 123 Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 125 Shielded Metal Arc Welding (SMAW) Open Groove Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 130 Gas Tungsten Arc Welding (GTAW)</td>
<td>2</td>
</tr>
<tr>
<td>WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 140 Gas Metal Arc Welding (GMAW)</td>
<td>2</td>
</tr>
<tr>
<td>WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 143 Gas Metal Arc Welding (GMAW) Fillet Groove Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 170 Blueprint Reading for Welding</td>
<td>2</td>
</tr>
<tr>
<td>WLD 171 Blueprint Reading for Welding Lab</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>24-25</strong></td>
</tr>
</tbody>
</table>

**AWS National Skills Standards Level I - 4805083089**

(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>
</tr>
</thead>
<tbody>
<tr>
<td>WLD 100 Oxy-Fuel Systems OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 110 Cutting Processes Lab</td>
<td>2</td>
</tr>
<tr>
<td>WLD 111 Cutting Processes Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 120 Shielded Metal Arc Welding (SMAW)</td>
<td>2</td>
</tr>
<tr>
<td>WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 123 Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 125 Shielded Metal Arc Welding (SMAW) Open Groove Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 130 Gas Tungsten Arc Welding (GTAW)</td>
<td>2</td>
</tr>
<tr>
<td>WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 140 Gas Metal Arc Welding (GMAW)</td>
<td>2</td>
</tr>
<tr>
<td>WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 143 Gas Metal Arc Welding (GMAW) Fillet Groove Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 170 Blueprint Reading for Welding</td>
<td>2</td>
</tr>
<tr>
<td>WLD 171 Blueprint Reading for Welding Lab</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>33-34</strong></td>
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</tbody>
</table>

**Gas Metal Arc Welder - 4805083149**

(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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</thead>
<tbody>
<tr>
<td>WLD 140 Gas Metal Arc Welding (GMAW)</td>
<td>2</td>
</tr>
<tr>
<td>WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 143 Gas Metal Arc Welding (GMAW) Groove Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 245 Gas Metal Arc Welding (GMAW) Pipe Lab A OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 147 Flux Cored Arc Welding (FCAW) Lab</td>
<td>1</td>
</tr>
<tr>
<td>WLD 170 Blueprint Reading for Welding</td>
<td>2</td>
</tr>
<tr>
<td>WLD 171 Blueprint Reading for Welding Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 100 Oxy-Fuel Systems OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 110 Cutting Process</td>
<td>2</td>
</tr>
<tr>
<td>WLD 101 Oxy-Fuel Systems Lab OR</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>15-18</strong></td>
</tr>
</tbody>
</table>

**Gas Tungsten Arc Welder - 4805083159**

(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>
</tr>
</thead>
<tbody>
<tr>
<td>WLD 130 Gas Tungsten Arc Welding (GTAW)</td>
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<tr>
<td>WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>WLD 235 Gas Tungsten Arc Welding (GTAW) Pipe Lab A</td>
<td>3</td>
</tr>
<tr>
<td>WLD 170 Blueprint Reading for Welding</td>
<td>2</td>
</tr>
<tr>
<td>WLD 171 Blueprint Reading for Welding Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 100 Oxy-Fuel Systems OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 110 Cutting Process Lab</td>
<td>2</td>
</tr>
<tr>
<td>WLD 101 Oxy-Fuel Systems Lab OR</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>17-18</strong></td>
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</table>

**Gas Welder - 4805083039**

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

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>WLD 100 Oxy-Fuel Systems OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 101 Oxy-Fuel Systems Lab</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

**Pipeline Welder - 4805083109**

(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>
</tr>
</thead>
<tbody>
<tr>
<td>WLD 100 Oxy-Fuel Systems OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 101 Oxy-Fuel Systems Lab</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

**Recommended Electives:**

WLD 122 Gas Tungsten Arc Welding (GTAW) Pipe Lab A | 3 |
WLD 235 Gas Tungsten Arc Welding (GTAW) Pipe Lab A | 3 |
WLD 245 Gas Metal Arc Welding (GMAW) Pipe Lab A | 3 |
**Total** | **29-40** |

**Production Line Welder - 4805083059**

(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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</thead>
<tbody>
<tr>
<td>WLD 130 Gas Tungsten Arc Welding (GTAW)</td>
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<tr>
<td>WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 140 Gas Metal Arc Welding (GMAW)</td>
<td>2</td>
</tr>
<tr>
<td>WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab</td>
<td>3</td>
</tr>
<tr>
<td>WLD 100 Oxy-Fuel Systems OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 110 Cutting Process Lab</td>
<td>2</td>
</tr>
<tr>
<td>WLD 101 Oxy-Fuel Systems Lab OR</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>19-20</strong></td>
</tr>
</tbody>
</table>
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
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WGS 200</td>
<td>Introduction to Women's and Gender Studies in the Social Sciences OR</td>
<td>3</td>
</tr>
<tr>
<td>WGS 201</td>
<td>Introduction to Women's and Gender Studies in the Arts and Humanities</td>
<td>3</td>
</tr>
<tr>
<td>HIS 266</td>
<td>History of American Women to 1920 OR</td>
<td>3</td>
</tr>
<tr>
<td>HIS 267</td>
<td>History of American Women from 1920 OR</td>
<td>3</td>
</tr>
<tr>
<td>HIS 265</td>
<td>History of Women in America</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives (Selected from the following list or by consent of instructor)</td>
<td>6</td>
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<tr>
<td>Total Credits</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

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 Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 160</td>
<td>Cultural Diversity in the Modern World</td>
</tr>
<tr>
<td>ANT 220</td>
<td>Introduction to Cultural Anthropology</td>
</tr>
<tr>
<td>BIO 120</td>
<td>Human Ecology</td>
</tr>
<tr>
<td>COM 299</td>
<td>Special Topics in Communication: Gender and Communication</td>
</tr>
<tr>
<td>ENG 233</td>
<td>Literature and Identities: Sexuality &amp; Representation</td>
</tr>
<tr>
<td>ENG 232</td>
<td>Literature and Place (Sub-topic required)</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 280</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>
</tr>
<tr>
<td>PHI 130</td>
<td>Ethics</td>
</tr>
<tr>
<td>PHI 110</td>
<td>Medical Ethics</td>
</tr>
<tr>
<td>REL 101</td>
<td>Introduction to Religious Studies</td>
</tr>
<tr>
<td>SOC 235</td>
<td>Inequality in Society</td>
</tr>
<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* (if not</td>
</tr>
<tr>
<td>WGS 201*</td>
<td>Introduction to Women’s and Gender Studies in the Arts and Humanities* (if</td>
</tr>
</tbody>
</table>

Total Credits 12
**Workplace Safety Specialist**

The Workplace Safety Specialist Certificate is designed to prepare and provide a well-rounded base of knowledge essential for success in carrying out effective safety programs for today’s workforce. Professionals who are seeking or are new to safety management occupations are introduced to health and safety regulating agencies, their rules and regulations, compliance standards as well as the personal and professional skills required to administrate safety programs.

---

**Certificate**

**Workplace Safety Specialist – 1507993010**

*(Offered at MYC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td>Digital Communications</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288 Personal Organizational Leadership</td>
<td>0-3</td>
</tr>
<tr>
<td>HSM 100 Introduction to Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>AHS 140 Introduction to Public and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>ISX 100 Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>15-18</strong></td>
</tr>
</tbody>
</table>

---

**Associate in Fine Arts (A.F.A.) Curricula**

**Filmmaking and Cinematic Arts**

The Associate in Fine Arts (AFA) in Filmmaking and Cinematic Arts degree program is designed for students who plan to transfer to a four-year institution to acquire a Bachelor of Fine Arts in (Digital) Cinematic Arts related fields. The embedded certificate program is designed to accommodate non-degree seeking students who wish to increase their knowledge and skills for the workplace. The program includes standard, transferable general education requirements for students seeking a higher degree. Technical courses in film history, film production techniques, cinematography, digital media, and writing for film are required in the core. Courses are offered in areas such as screenwriting, digital media design, camera, audio, acting and editing. Students will focus on the application of skills in the production of several finished short films.

Due to the nature of the digital cinematic arts, multiple ways of understanding/communicating are explored and critical competencies like creative problem solving, collaboration, time management and critical thinking are learned and practiced. Upon completion, graduates will be prepared for careers in the growing film industry in Kentucky, transfer to a 4-year institution, and employment – worldwide – in this growing medium.

The Filmmaking: From 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.

---

**Associate in Fine Arts**

**Filmmaking and Cinematic Arts – 5006027039**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>General Education Core Requirements</th>
<th>Credits</th>
</tr>
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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>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Heritage</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110 Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MA 111 Contemporary Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 146 Contemporary College Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>Higher Quantitative Reasoning Course</td>
<td>(3)</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3-4</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digital Literacy</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer/Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>Must include a laboratory experience for general education certification.</td>
<td></td>
</tr>
<tr>
<td>In the Natural Sciences category.</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
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</tbody>
</table>

**Digital Cinematic Arts Core**

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concentration (Choose 12 hours from list of approved Digital Cinematic Arts Electives)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLM 112 Filmmaking: Treatment to Short Screen Play</td>
<td>4</td>
</tr>
<tr>
<td>FLM 122 Filmmaking: Storyboard through Production</td>
<td>4</td>
</tr>
<tr>
<td>FLM 132 Filmmaking: Editing through Distribution</td>
<td>2</td>
</tr>
<tr>
<td>FLM 260 Cinematography</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250 Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>FILM 190 Film Boot Camp*</td>
<td>3</td>
</tr>
<tr>
<td>FILM 291 Cinematic Arts Internship</td>
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</table>

Other courses may be selected with program coordinator permission.

**Total**

<table>
<thead>
<tr>
<th>Credits</th>
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<tbody>
<tr>
<td>62-66</td>
</tr>
</tbody>
</table>

*FLM 190 can be taken twice for credit. In order for it to count in the core and as an elective, students must pass the course twice for credit.

---

**Certificate**

**Filmmaking – From Script to Screen – 5006023019**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
</tr>
</tbody>
</table>

Degree requirements: completion of minimum 60 credit hours; minimum cumulative 2.0 GPA; minimum of 15 credit hours earned at the institution awarding the degree; cultural studies course; and demonstration of computer literacy.

1 Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog.

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

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

**Associate in Fine Arts**

**Theatre - 5005017019**

*(Offered at BLC, OWC)*

**General Education Core Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing 1</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing 2</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>
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**Theatre Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer/Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>THA 101</td>
<td>Introduction to Theatre</td>
</tr>
<tr>
<td>THA 126</td>
<td>Fundamentals of Acting</td>
</tr>
<tr>
<td>THA 226</td>
<td>Acting II: Scene Study (Realism)</td>
</tr>
<tr>
<td>THA 227</td>
<td>Acting III: Scene Study (Styles)</td>
</tr>
<tr>
<td>THA 260</td>
<td>Stagecraft</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</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 190</td>
<td>Production Practicum (1) (May be repeated)</td>
</tr>
<tr>
<td>THA 191</td>
<td>Performance Practicum (1) (May be repeated) to equal 3 hours, OR</td>
</tr>
<tr>
<td>TA 195</td>
<td>Special Projects in Theatre Arts (Project Title) OR</td>
</tr>
<tr>
<td>THA 196</td>
<td>Summer Theatre Workshop</td>
</tr>
</tbody>
</table>

**Concentration (Choose 18 hours from the Approved Theatre Electives)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 127</td>
<td>Acting Techniques</td>
</tr>
<tr>
<td>THA 150</td>
<td>Fundamentals of Production</td>
</tr>
<tr>
<td>THA 200</td>
<td>Introduction to Dramatic Literature</td>
</tr>
<tr>
<td>THA 283</td>
<td>American Theatre</td>
</tr>
<tr>
<td>FLM 112</td>
<td>Filmmaking: Treatment to Storyboarding</td>
</tr>
<tr>
<td>FLM 122</td>
<td>Filmmaking: Storyboard through Production</td>
</tr>
<tr>
<td>FLM 132</td>
<td>Filmmaking: Editing through Distribution</td>
</tr>
<tr>
<td>ART</td>
<td>University Chorus</td>
</tr>
<tr>
<td>ENG 281</td>
<td>Introduction to Film</td>
</tr>
</tbody>
</table>

**Visual Art**

The Associate in Fine Arts (AFA) in Visual Art degree program is designed for students who plan to transfer to a four-year institution in order to pursue a BFA in the Visual Arts and/or a career in arts-related areas requiring pre-professional credentials. The program includes general education requirements, visual arts foundation courses in drawing, design and art history, as well as a wide variety of studio art electives. Students will focus on the development of artistic skills and a visual vocabulary for personal expression, while exploring both traditional and nontraditional art areas. Classes will also encourage analytical and creative problem-solving skills and experience in both verbal presentation of ideas and critical concepts. A personal portfolio of artwork will be a tangible result of a student completing this program.

**Associate in Fine Arts**

**Visual Art - 5007027019**

*(Offered at OWC,WKC)*

**General Education Core Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing 1</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing 2</td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td>Arts &amp; Humanities</td>
<td>3</td>
</tr>
<tr>
<td>(The course chosen to satisfy this requirement must be from a discipline other than the discipline in the Fine Arts Core and/or Concentration)</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>(Must include a laboratory experience for general education certification in the Natural Sciences category) Quantitative Reasoning</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal**

<table>
<thead>
<tr>
<th>Course</th>
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**Fine Arts Core (Visual Art track)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 105</td>
<td>Ancient through Medieval Art History</td>
</tr>
<tr>
<td>ART 106</td>
<td>Renaissance through Modern Art History</td>
</tr>
<tr>
<td>ART 110</td>
<td>Drawing I</td>
</tr>
<tr>
<td>ART 112</td>
<td>2-Dimensional Design</td>
</tr>
<tr>
<td>ART 113</td>
<td>3-Dimensional Design</td>
</tr>
<tr>
<td>ART 210</td>
<td>Drawing II</td>
</tr>
</tbody>
</table>

**Subtotal**

24
### Summary

**General Education Core Requirements**  
24

**Fine Arts Core Requirements**  
18

**Concentration (Approved Art Studio Electives)**  
18

**Total**  
60

Degree requirements: completion of minimum 60 credit hours; minimum cumulative 2.0 GPA; minimum of 15 credit hours earned at the institution awarding the degree; cultural studies course; and demonstration of computer literacy.

1 Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog.

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

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

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</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 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>
<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 251</td>
<td>Graphic Communication I</td>
<td>3</td>
</tr>
<tr>
<td>ART 252</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>ART 253</td>
<td>Graphic Communication II</td>
<td>3</td>
</tr>
<tr>
<td>ART 254</td>
<td>Design Process and Presentation</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>Printmaking I</td>
<td>3</td>
</tr>
<tr>
<td>ART 271</td>
<td>Printmaking 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>
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**Concentration (Choose 18 hours from the Approved Art Studio Electives)**  
18

**Fine Arts Core Requirements**  
18

<table>
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<tbody>
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<td>Graphic Communication I</td>
<td>3</td>
</tr>
<tr>
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<td>Typography</td>
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<tr>
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<td>Design Process and Presentation</td>
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</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>Printmaking I</td>
<td>3</td>
</tr>
<tr>
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</table>
Course Descriptions

Courses are numbered as follows:
001 through 099 – Orientation and developmental courses
100 through 199 – Undergraduate credit
200 through 299 – Undergraduate credit; sophomore classification may be required.
Modular courses have four number or alpha characters with the first three numbers representing the parent course, e.g., BAS 1601 is the first module of BAS 160. The last character denotes the sequence of the module with either a numerical or alpha character. Course descriptions are published for recently approved courses, and those that have been offered in the preceding two-year period. Other active courses may be offered that are not published in the printed catalog.

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. Pre-requisite: Quantitative Reasoning College-Readiness or Consent of the Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACC 202(3) Course ID:000001
Managerial Accounting
An introduction to the use of accounting data within an organization to analyze and solve problems and to make planning and control decisions. Pre-requisite: ACC 201 or ACT 101 and ACT 102. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACC 2011(1) Course ID:005846
Financial Accounting-Accounting as an Information System
Presents the accounting cycle and preparation of financial statements. Pre-requisite: Sophomore Standing (30 credit hours) or Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

Course Credit
Variable credit is shown as (1-3).

Course ID: 000467
Unique course identification

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

Components: Course
May have one component or several - lecture, laboratory, clinical, etc.

ACH Architectural Technology

ACH 100(3) Course ID:004679
Construction Documents I
This is the first course of a four-semester studio sequence. Proper methods and fundamentals of architectural construction documents and residential construction will be introduced. Drafting conventions utilizing basic hand drafting tools and computer-aided drawing techniques will be studied. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Computer Literacy, Technical

ACH 110(1) Course ID:004680
Survey of the Architectural Profession
In this course, the student will gain an understanding of the language of architecture and develop an appreciation for building design strategies through direct analysis. In addition, various career opportunities in architecture and related professions will be explored. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

ACH 120(3) Course ID:004681
Theory and History of Architecture I
The development of architecture as it is related to world culture with an emphasis on design, structure, materials, eco-social, and political factors are considered. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 150(3) Course ID:004682
Construction Documents II
This is the second course of a four-semester studio sequence. Students develop architectural construction documents for multi-level framed construction. Students will further develop an understanding of programming, schematics, design development, and construction document production using current computer-aided technology. Emphasis will be placed on building codes and related discipline coordination. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Pre-requisite: ACH 100 or consent of instructor.

Components: Laboratory, Lecture
Attributes: Technical
ACH 160(3) Course ID:004683
Building Materials and Construction I
The essentials of the theory of selected building materials (Construction Specifications Institute, Divisions 2-7) and their assembly in appropriate systems are presented with particular attention to component selection and behavior under various loads, climatic conditions and fire. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 161(3) Course ID:004684
Building Materials and Construction II
The essentials of the theory of selected building materials (Construction Specifications Institute, Divisions 7-16) and their assembly in appropriate systems are presented with particular attention to component selection and behavior under various loads, climatic conditions and fire. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 170(3) Course ID:004685
Theory and History of Architecture II
A survey of the architectural periods from the neo-classic to the present is presented. This course is a continuation of ACH 120. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 175(3) Course ID:004686
Introduction to Systems
An overview of the various systems found in buildings and the influences that shape architectural design and construction is presented. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 180(1 - 3) Course ID:005463
Instructor Consent Required
Selected Topics in Architectural Technology (Topic)
The subject matter of this course may vary from semester to semester as new technology is developed and new issues evolve and/or to address local architectural issues. This course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).

Components: Lecture
Attributes: Technical

ACH 194(3) Course ID:004687
Visual Composition
In this course, the student will study the aesthetic principles found in both two-dimensional and three-dimensional compositions. These principles will be applied in exercises involving drawing, model construction and creative writing. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (120 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ACH 195(3) Course ID:004685
Computer Aided Drafting I
Students learn how computer hardware and software are used in preparing architectural documents. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ACH 198(1 - 3) Course ID:015986
Practicum in Architectural Technology
Provides supervised, on-the-job work experience related to the student's educational objectives; students who participate in the practicum do not receive compensation. Pre-requisite: Completion of a minimum of 12 hours in Architectural Technology (ACH) courses with a minimum cumulative GPA of 2.0 in all courses. Practicum: 1.0 - 3.0 credits (40-120 contact hours).

Components: Practicum
Attributes: Technical

ACH 200(3) Course ID:004688
Construction Documents III
This is the third course of a four-semester studio sequence. Students study the methods by which commercial buildings are designed and constructed. Basic skills are developed relating to the implementation of determinants in this process such as program analysis, applicable codes, construction methods and materials as well as computer applications. Through the completion of a series of structured projects including the preparation of a set of architectural construction documents for a medium-sized building, students apply the knowledge necessary to achieve these goals. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Pre-requisite: ACH 150 and ACH 185/ACH 195 or consent of instructor.

Components: Laboratory, Lecture
Attributes: Technical

ACH 225(3) Course ID:004689
Structures
Students study structural materials and systems including the design of simple structural components. Pre-requisite: ACH 175 and MAH 125, or consent of instructor.

Components: Lecture
Attributes: Technical

ACH 250(3) Course ID:004690
Construction Documents IV
This is the fourth course of a four-semester studio sequence. Students prepare a set of advanced construction documents using current computer-aided drafting techniques. Emphasis will be placed on design principles and site development for a commercial construction project. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Pre-requisite: ACH 200 or consent of instructor.

Components: Laboratory, Lecture
Attributes: Technical

ACH 260(3) Course ID:004691
Office Practice
This course is intended to serve as a capstone course in the Architectural Technology program. Emphasis is placed on preparing students for the workplace by focusing on the professional, legal, and business aspects of the architectural and construction industries. Case studies are reviewed and 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). Pre-requisite: ACH 175 and ACH 200 or equivalent.

Components: Lecture
Attributes: Technical

ACH 275(3) Course ID:004692
Mechanical and Electrical Systems
Students engage in a qualitative and quantitative study of environmental control systems used in buildings. Pre-requisite: ACH 175 and MAT 125, or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 280(2) Course ID:006138
Revit/Building Information Modeling
Introduces Building Information Modeling (BIM) using Autodesk Revit or other similar and related software, methods and processes. Provides students with skills to produce and present residential and commercial design models, construction documents, and to extract information and data from the model. Incorporates investigations into issues related to sustainable design and the integration of other software for related analysis. Pre-requisite: ACH 195, or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

ACH 285(3) Course ID:005464
Computer-Aided Drafting II
Students learn how to modify selected computer aided drafting software to enhance construction document production. Integration of other software will also be discussed. Pre-requisite: ACH 185 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 290(3) Course ID:004694
Building Codes I
Students will analyze the content and format of current building codes. The necessity for building codes, problems in interpretation and application as well as legal aspects will be discussed. The main objective is to familiarize students with the basic provisions and procedures associated with building code administration. Pre-requisite: ACH 150 and ACH 160, or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 291(3) Course ID:004695
Construction Management
Students examine the principles and current practices of construction management with emphasis on pre-construction, scheduling and cost control. Pre-requisite: ACH 150, ACH 160 and ACH 161, or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 292(3) Course ID:004696
Building Codes II
This course will be continuation of ACH 290, Building Codes I, with a more in-depth study of current building codes. Pre-requisite: ACH 290 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 293(3) Course ID:004697
Presentation Techniques
Students will explore a variety of presentation and rendering techniques used in the architectural profession. Design skills and the understanding of spatial relationships will be further developed. Pre-requisite: ACH 100 or consent of instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ACH 294(3) Course ID:004698
Specification Writing
This course provides an in-depth study of the importance of specifications in the design and construction process. Students will engage in research, evaluate the quality of building materials, study the methods of writing specifications, and gain exposure to industry-standard software in preparing a variety of specifications. Pre-requisite: ACH 150, ACH 160, ACH 161, or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 295(3) Course ID:004699
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. Pre-requisite: ACH 195 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACH 297(3) Course ID:004699
Estimating Techniques
Students investigate the factors affecting the cost of construction, labor productivity, materials, overhead and profit, including area and volume computations. Current methods of cost estimating will be applied. Pre-requisite: ACH 150 and MAT 125; or consent of instructor. Lecture: 2.5 credits (37.5 contact hours); Laboratory: 0.5 credits (7.5 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ACH 298(3) Course ID:004700
Computer 3D Modeling
Students learn how computer hardware and software are used in preparing 3D architectural drawings and client-oriented presentations. Pre-requisite: ACH 150 and ACH 185 or consent of instructor. 

Components: Lecture
Attributes: Technical
ACR 101(2) Course ID:000950
Refrigeration Fundamentals Lab
Introduces fundamentals of refrigeration including environmental issues associated with HVAC and refrigerant piping. Develops proper hands-on techniques in the servicing and troubleshooting of basic systems. Stresses proper use and care of tools, equipment, materials, and safety. Co-requisite: ACR 100. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 102(3) Course ID:000951
HVAC Electricity Lab
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. Co-requisite: ACR 103. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 103(2) Course ID:000952
HVAC Electricity Lab
Introduces students to basic physics of electricity. Provides for application of Ohm’s law; and measure resistance, voltage, ohms, watts and amps; construct various types of electrical circuits; select wire and fuse sizes; and learn to troubleshoot an electric motor and motor controls. Co-requisite: ACR 102. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 112(3) Course ID:000953
Sheet Metal Fabrication
The student will learn to make patterns and lay out and construct common sheet metal duct fittings. Co-requisite: ACR 113.
Components: Lecture Attributes: Technical

ACR 113(2) Course ID:000954
Sheet Metal Fabrication Lab
Provides lab time for students to lay out, cut, construct, and install common sheet metal duct fittings. Co-requisite: ACR 112. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 130(3) Course ID:000955
Electrical Components
Defines the electrical components of an air conditioning system. Includes different types of line voltages, wiring diagrams and solid state devices. Emphasizes safety. Pre-requisite: ACR 102 with a grade of C or greater. Co-requisite: ACR 131. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 131(2) Course ID:000956
Electrical Components Lab
Permits practice using different types of line voltages, reading wiring diagrams, and using solid state devices. Emphasizes safety. Pre-requisite: ACR 102 with a grade of C or greater. Co-requisite: ACR 130. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 170(3) Course ID:000957
Heat Load/Duct Design
Introduces fundamentals needed to calculate heat gain and heat loss, thereby determining air conditioner/furnace size which will be used to calculate the correct duct size. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 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. Pre-requisite: (ACR 100 and ACR 101) with a grade of C or greater. Co-requisite: ACR 201. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 201(2) Course ID:000961
Commercial Refrigeration Lab
Provides techniques in servicing and troubleshooting mechanical and electro-mechanical refrigeration components. Emphasizes electrical and refrigeration safety. Covers proper tool use and environmentally sound refrigerant handling. Pre-requisite: (ACR 100 and ACR 101) with a grade of C or greater. Co-requisite: ACR 200. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 206(5) Course ID:000737
Boilers
Develops techniques for servicing, troubleshooting and performing preventive maintenance on steam generating systems. Emphasizes electrical and steam safety. Covers proper tool and instrument use and practices for the efficient applications on steam systems used in commercial and industrial settings. Pre-requisite: ACR 102 and ACR 103. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

ACR 207(5) Course ID:000737
Commercial HVAC Systems
Develops techniques for servicing, troubleshooting and performing preventive maintenance on commercial HVAC systems. Emphasizes electrical and mechanical safety. Covers tools and instruments used in installing, troubleshooting, and preforming preventive maintenance on commercial HVAC systems. Pre-requisite: (ACR 100 and ACR 101 and ACR 102 and ACR 103) or Consent of the Instructor. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

ACR 208(4) Course ID:000738
Chillers
Develops techniques for servicing, troubleshooting and performing preventive maintenance on high-pressure, low-pressure and absorption chilled water systems. Emphasizes electrical and safety. Covers proper tool and instrument use and practices for the efficient applications on chilled water systems used in commercial and industrial settings. Pre-requisite: ACR 100 and ACR 102 and ACR 103. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture Attributes: Technical

ACR 209(4) Course ID:000739
Manual N Commercial Load Calculation and Design
Covers fundamentals needed to calculate heat gain and heat loss for commercial buildings. Introduces design conditions, solar heat gain, ventilation, internal heat gains, psychrometrics and distribution systems for air conditioning and heating, thereby determining the correct size of equipment needed for different commercial buildings. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ACR 210(3) Course ID:000962
Ice Machines
Introduces operation, checking, adjusting and troubleshooting commercial ice makers. Covers adjusting, checking, cleaning and troubleshooting commercial ice machines. Pre-requisite: (ACR 100 and ACR 102) with a grade of C or greater. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 250(3) Course ID:000963
Cooling and Dehumidification
Explains working characteristics of air conditioning units with air and water cooled condensers. Covers line, low voltage and pneumatic controls. Pre-requisite: (ACR 100 & ACR 101) with a grade of C or greater. Co-requisite: ACR 250. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 251(2) Course ID:000965
Cooling and Dehumidification Lab
Prepares the student for installing, servicing, and troubleshooting air conditioning systems with water and air cooled condensers and line and low voltage. Pre-requisite: (ACR 100 & ACR 101) with a grade of C or greater. Co-requisite: ACR 250. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 260(3) Course ID:000965
Heating and Humidification
Discusses principles of operation and application of heating systems from simple electric and fossil fuel furnaces through more complex systems such as oil burners, boilers, and hydronic systems. Concentrates on both line and control voltage circuitry pertaining to these systems. Pre-requisite: ACR 102 &103 or EET 154 & 155 or ETT 112 & 113 or IMT 110 & 111 or consent from the instructor. Co-requisite: ACR 262. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 262(2) Course ID:016230
Heating and Humidification Lab
Provides lab time for application of troubleshooting, checking, adjusting, and installing heating units currently in use. Pre-requisite: ACR 102 &103 or EET 154 & 155 or ETT 112 & 113 or IMT 110 & 111 or consent from the instructor. Co-requisite: ACR 280. Laboratory 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 270(3) Course ID:000967
Heat Pump Application
Explains reverse cycle heating systems, defrost cycles, reversing valves, and auxiliary heating. Concentrates on line and control voltage circuitry pertaining to these units. Pre-requisite: [(ACR 100 and ACR 102) with a grade of C or greater] or Permission of Instructor. Co-requisite: ACR 271. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 271(2) Course ID:000966
Heat Pump Application Lab
Provides for application of troubleshooting, checking, adjusting, and installing reverse cycle units. Pre-requisite: [(ACR 100 and ACR 102) with a grade of C or greater] or Permission of Instructor. Co-requisite: ACR 270. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 290(3) Course ID:000969
Journeyman Preparation
Includes lectures, discussions, and presentations pertaining to the proper application of HVAC codes. Prepares the student to pass the Kentucky Journeyman
HVAC licensing exam. (This class should be taken at the end of the program.) Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACT 291(1) Course ID:000970
Instructor Consent Required
Special Problems
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

ACT 293(2) Course ID:000971
Instructor Consent Required
Special Problems II
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

ACT 295(3) Course ID:000972
Instructor Consent Required
Special Problems III
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor Laboratory: 3 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

ACT 298(2) Course ID:000973
Instructor Consent Required
Practicum
Practicum provides supervised on-the-job work experience related to the student's education objectives. Students participating in Practicum do not receive compensation. Pre-requisite: Permission of the Instructor. Practicum: 2 credits (150 contact hours).
Components: Practicum
Attributes: Technical

ACT 299(2) Course ID:000974
Instructor Consent Required
Cooperative Education Program
Co-op provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Cooperative Education program receive compensation for their work. Pre-requisite: Permission of the Instructor. Co-op: 2 credits (150 contact hours).
Components: Co-Op
Attributes: Technical

ACT 101(3) Course ID:000004
Fundamentals of Accounting
Students are introduced to accounting terminology and general theoretical principles. The major focus of the course is on the accounting cycle and the communication of financial information to decision-makers. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACT 102(3) Course ID:000005
Fundamentals of Accounting II
Basic financial accounting concepts and methods are expanded to include accounting for partnerships and corporations. Lecture: 3 credits (45 contact hours). Pre-requisite: ACT 101.
Components: Lecture
Attributes: Technical

ACT 177(3) Course ID:005238
Entrepreneurial Accounting
Includes issues and concerns that are vital to small and medium-size businesses. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACT 196(3) Course ID:000007
Payroll Accounting
The design and implementation of modern payroll systems will be introduced in this course. Pre-Requisite: ACC 201 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACT 277(3) Course ID:000008
Managerial Accounting Topics
The study of the uses of accounting information in managerial planning and control of organizations. Pre-requisite: ACC 202. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACT 279(3) Course ID:000010
Computerized Accounting Systems
Applying accounting concepts and principles by using accounting software, for both service businesses and merchandisers. Includes internal control principles for both manual and computerized accounting systems. Pre-requisite: ACC 201 or ACT 101 and ACT 102 or concurrent enrollment in ACT 102. Digital literacy 3.0 hours. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

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. Pre-requisite: ACC 201 or ACT 101 and ACT 102. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACT 1771(0.6) Course ID:005239
Rationale for a Well Designed Accounting System
Developing a well designed accounting system for the entrepreneur. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

ACT 1772(0.6) Course ID:005240
Contractual and Legal Reporting Requirements
Common contractual and legal reporting requirements. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1771 or consent of the instructor.
Components: Lecture

ACT 1773(0.6) Course ID:005241
Overview of Accounting for the Entrepreneur
Overview of accounting for the entrepreneur. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1772 or consent of the instructor.
Components: Lecture

ACT 1774(0.6) Course ID:005242
Introduction to Computer Accounting Software to Record Basic Accounting Transactions
Computer accounting software to record basic accounting transactions. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1773 or consent of instructor.
Components: Lecture

ACT 1775(0.6) Course ID:005243
Introduction to Computer Accounting Software to Generate Financial Statements
Computer accounting software to generate financial statements. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1774 or consent of the instructor.
Components: Lecture

ACT 1961(0.5) Course ID:006117
Payroll Records
Introduces the records required for today's payroll or human resource manager. Covers the relationship between Payroll and Human Resources and their common laws. Concludes with salary computations and methods to compute Gross Payroll. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

ACT 1962(0.5) Course ID:006118
Payroll Taxes
Covers federal and state tax withholding and employer-side payroll expenses. Pre-requisite: ACT 1961. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

ACT 1963(0.5) Course ID:006119
Accounting for Payroll
Covers federal and state unemployment laws and accounting for payroll. Pre-requisite: ACT 1961. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

ACT 1964(1) Course ID:006120
Manual Payroll
Requires the student to complete a Quarterly Payroll Simulation. Pre-requisite: ACT 1962 & 1963. Lecture: 1 credit (15 contact hours).
Components: Lecture

ACT 1965(0.5) Course ID:006121
Computerized Payroll
Requires the student to complete a Computerized Payroll Simulation. Pre-requisite: ACT 1962 & 1963. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

ACT 2791(1) Course ID:015822
Computer Accounting Basics
Presents accounting concepts and principles for a merchandiser using computerized accounting software. Pre-requisite: ACC 201 or ACT 101 and ACT 102 or concurrent enrollment in ACT 102. Digital literacy 3.0 hours. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ACT 2792(1) Course ID:015823
Computer Accounting Procedures
Presents computerized accounting concepts and principles for businesses including service providers. Pre-requisite: ACT 2791. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ACT 2793(1) Course ID:015824
Advanced Features and Controls
Presents accounting concepts and principles for new businesses, including merchandisers, and covers internal controls. Pre-requisite: ACT 2792. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

ADX Automotive Technology

ADX 120(3) Course ID:000983
Basic Automotive Electricity
Introduces the student to the principles, theories, and concepts of the automotive electrical system that include the unique diagramming, coding and locating of wiring, and component devices. Co-requisite: ADX 121. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ADX 121(2) Course ID:000984
Basic Automotive Electricity Lab
Provides hands-on work designed to allow the student to use the concepts, principles, and theories covered in Basic Automotive Electricity. ADX 120, in practical application. Provides the student a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Co-requisite: ADX 120. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
AET 150(3)  Course ID:000985

Engine Repair
Provides a series of lectures and demonstrations on the fundamentals of engine repair, troubleshooting, and engine operation and maintenance. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ADX 151(2)  Course ID:000986

Engine Repair Lab
Provides practical experiences and applications related 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 Co-requisite: ADX 150. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

ADX 170(3)  Course ID:000987

Climate Control
Introduces the theory and operation of heating and air conditioning systems, air conditioning terminology, and servicing and troubleshooting mechanical and electrical circuits of heating and air conditioning systems. Co-requisite: ADX 171. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ADX 171(1)  Course ID:000988

Climate Control Lab
Provides opportunities to troubleshoot, repair and perform maintenance on heating and air conditioning systems. Provides experiences in safety precautions, special tool uses, component operation and how to service and troubleshoot the complete system. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Co-requisite: ADX 170. Lab: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

ADX 260(3)  Course ID:000989

Electrical Systems
Focuses on the theory and principles relating to automotive electrical/electronic components. Co-requisite: ADX 261. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ADX 261(2)  Course ID:000990

Electrical Systems Lab
Provides practical applications and experiences related to the theory and principles of automotive electrical/electronic components. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Co-requisite: ADX 260. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

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. Pre-requisite: AET 190. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 270(4)  Course ID:006378

Advanced PLC Programming
Introduces the student to the wide range of capabilities, beyond basic programming needs, which are available to the modern PLC user. Includes data Manipulation; shift register and sequencer instructions; binary, octal and hexadecimal numbering systems; and analog inputs and outputs. Pre-requisite: EET 276 and EET 277. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 290(1)  Course ID:003569

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. Co-requisite: AFS 112. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

AET 291(1)  Course ID:003560

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. Co-requisite: AFS 111. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

AET 292(1)  Course ID:003561

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. Pre-requisite: AFS 111. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Other

AGR 101(3)  Course ID:000750

The Economics of Food and Agriculture
Introduces the field of agricultural economics and some of the basic tools and concepts of decision-making. Illustrates concepts in terms of selected current social and economic issues including the role of agriculture in both a national and international dimension. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

AGR 115(3)  Course ID:015713

Agriculture Maintenance
Provides a study of basic maintenance issues (electrical, plumbing, fencing, building construction and repair, and safety) that arise in farming operations; and the practical troubleshooting and problem solving techniques. Lecture/Lab: 3.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AGR 125(3)  Course ID:002209

Introduction to Fertilizers and Soils
Introduces practical aspects of soils and fertilizers as related to plant growth and production. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credits (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

AGR 130(2)  Course ID:005135

Field Applications in Agriculture
Introduces an approach to solving many application problems encountered in agriculture using applied mathematical and logic skills. Emphasizes practical mathematical skills already acquired from secondary education to address agricultural situations involving computations necessary for upper level courses in agriculture. Requires some knowledge of agricultural situations. Pre-requisite: MAT 055 or equivalent placement level. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical
AGR 135(3) Course ID: 015714
Herbaceous Plant Production
Introduces the identification, selection, requirements, care, and use of herbaceous plant materials commonly found in food/agronomic production, including scientific name and common pests. Discusses Annuals, perennials, bulbs, and grasses. Lecture/Lab: 3.0 (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 140(3) Course ID: 000021
Issues In Agriculture
Provides an introduction to agriculture and current issues pertaining to the agricultural industry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AGR 145(3) Course ID: 015715
Technology in Agriculture
Provides students with a basic introduction to the newest technological advancements in the agricultural industry, including the involvement of computer-based applications. Introduces students to computer integrated management of agricultural operations, including livestock, crop, financial management, and record keeping. Develops understanding of equipment and farm monitoring technology and their integration with smart devices. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 150(3) Course ID: 000022
Agricultural Power
Provides an introduction to farm equipment and their power units through classroom instruction that concentrates on specific principles that govern the equipment. Includes a lab that applies the principles learned in the classroom. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 155(3) Course ID: 015716
Greenhouse Production
Components: Lecture
Attributes: Technical

AGR 160(3) Course ID: 004279
Horticultural Science
A study of the practical principles and practices used in horticulture. Lecture: 3 credits (45 contact hours).
Components: Lecture

AGR 170(3) Course ID: 000024
Introduction to Equipment, Machines, and Engines
Provides an introduction to tractors, combines, balers, forage harvesters and winnowers and various attachments. Includes a study of the operation, adjustments, and repairs. Covers an introduction to engines in which theory and minor repairs will be discussed. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 175(2) Course ID: 015717
Agriculture Marketing and Sales
Enables students to gain a fundamental knowledge of marketing and sales strategies as they are directly related to the agriculture industry. Focuses on market research, marketing management, promotions, produce handling, packaging, distribution, customer relations and sales techniques. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

AGR 180(2) Course ID: 000025
Agricultural Internship I
Provides the opportunity to broaden the educational experience through appropriate observation and individualizes work assignments related to the pre-requisite and/or co-requisite course objectives. The student will spend 80 hours of supervised field experience in an approved Agricultural Industry. Pre-requisite Or Co-requisite: (AGR 150 and AGR 140) or Consent of Instructor. Lab: 2.0 credits (75 contact hours).
Components: Laboratory
Attributes: Technical

AGR 190(2) Course ID: 000026
Agricultural Internship II
Provides the opportunity to broaden the educational experience through appropriate observation and individualized work assignments related to the pre-requisite and/or co-requisite course objectives. The students will spend 80 hours of supervised field experience in an approved Agricultural Industry. Pre-requisite: (AGR 125 and AGR 180 and AGR 170) or Consent of Instructor. Lab: 2.0 credits (75 contact hours).
Components: Laboratory
Attributes: Technical

AGR 200(2) Course ID: 000028
Agricultural Internship III
Provides the opportunity to broaden the educational experience through appropriate observation and individualized work assignments related to the pre-requisite and/or co-requisite course objectives. The student will spend 80 hours of supervised field experience in an approved Agricultural Industry. NOTE: Internship III is a variable credit (1-2 credit hours) with a total 2 credit hour program requirement. Students must take a minimum of one credit hour of Internship in their last semester of enrollment or after all agricultural classes have been completed. Pre-requisite: AGR 180 and AGR 190. Lab: 2.0 credits (75 contact hours).
Components: Laboratory
Attributes: Technical

AGR 205(3) Course ID: 015718
Forage Management
Includes the study of the management, production, and utilization of forage grasses and legumes for harvested and grazed production. Includes subject areas such as varietals selection, planting, calculating yields, production costs, growth management, and harvesting techniques. Focuses on annual and perennial legume and grass production. Emphasizes establishment, winter survival, fertilization, cutting management, forage storage, and variety selection. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 215(3) Course ID: 015719
Weed Management
Examines the nature of crop/weed interactions and explores various weed control methods. Explores weed identification, biology, ecology, and modern management principles. Pre-requisite: AGR 250. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 220(3) Course ID: 000030
Computers In The Agricultural Environment
Provides an introduction to computers as they relate to the agricultural environment. Pre-requisite: CIS 100. Lecture 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 225(3) Course ID: 015720
Agriculture History
Provides knowledge required for development of skills in the following areas: commercial vegetable production; variety selection; production methods; growth and development; harvesting; and pest control. Pre-requisite: AGR 250. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AGR 230(3) Course ID: 005136
Career Development in Agriculture
Includes essential aspects of career preparation, entry, adjustment, and advancement in agriculture and related fields. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AGR 235(3) Course ID: 015721
Field Crop Production
Gain an understanding of the major U.S. field crops with emphasis on their growth requirements, development, uses, management, and physiology. Pre-requisite: AGR 260 Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 240(3) Course ID: 000032
Introduction to Animal Science
Provides a limited overview of the farm species of livestock. Includes the study of major livestock breeds of beef and dairy cattle, sheep, swine, poultry, and horses. Covers management application for livestock production as well as production facilities. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 245(3) Course ID: 015722
Pest Management
Provides a study of agricultural pest control, including insects, diseases, and weeds, of common agricultural and horticultural crops. Discusses management techniques including chemical, biological, IPM, and organic methods. Pre-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 250(3) Course ID: 000033
Introduction to Plants/Crop Production
Familiarizes students with the basic principles and theories involved in field crop production. Provides a limited understanding of how crops are grown as a prelude to growing crops successfully. Covers pest and pesticides as well as plant disease and protection. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 255(3) Course ID: 015723
Crop Scouting
Designed to give students a hands-on experience scouting crops to find and identify existing and potential problems related to crop growth and development, fertility, pest pressure, and similar yield reducers. Pre-requisite: AGR 235 Field Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 260(3) Course ID: 007387
Introduction to Sustainable Agriculture
Provides students with a clear perspective on the principles, history, and practices of sustainable agriculture in our local and global communities. Provides understanding of the challenges to sustainability in our present system of agriculture. Enables students to identify principles of sustainable agriculture as they relate to basic production practices. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AGR 265(2) Course ID: 015724
Agriculture Business and Records
Provides students with an introduction to farm business management and record keeping. Emphasis is placed on business structures, developing a business plan, budgeting and basic accounting principles, agriculture tax code, and record keeping. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical
AGR 270(3)  Course ID:007388
Introduction to Organic Agriculture
Introduces students to the theories, practice, and policy of organic agriculture. Topics covered include the history and the need for organic agriculture, fundamental organic farming practices, organic animal production, the National Organic Program, and economic and marketing considerations for organic products. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AGR 275(3)  Course ID:015725
Value Added Production
Provides students the knowledge and skills necessary to add economic value to raw farm products. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 280(3)  Course ID:007424
Livestock Management
Covers management practices involved in the production of swine, horses, cattle, sheep and goats. Emphasizes selection, reproduction, feeding, diseases, marketing, handling, and parasite control. Laboratory exercises teach and reinforce livestock management techniques. Pre-requisite: AGR 240 Introduction to Animal Science. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 285(3)  Course ID:015726
Farm Financial Management
Provides an overview of the basic concepts needed to understand commodity futures and option markets. Discuss risks and rewards, as well as other concepts needed to successfully trade in these markets. Pre-requisite: AGR 101 Economics of Food and Agriculture. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

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
Attributes: Technical

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-based learning are included. Lecture: 2.5 credit hours (37.5 contact hours); Lab: .5 credit hours (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

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
Attributes: Technical

AHS 115(3)  Course ID:003808
Medical Terminology
A study of anatomical, physiological and pathological terminology with emphasis on word structures and definition of root words, suffixes, and prefixes from Greek and Latin. Additional emphasis is placed on spelling and pronunciation. Primarily designed for individuals preparing for a career in health care. No previous knowledge of Greek or Latin is required. Lecture: 3 hrs.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

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
Attributes: Technical

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
Attributes: Technical

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
Attributes: Technical

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 nontraditional and underrepresented consumers’ access to and use of health care resources. Broadens students’ perception and understanding of health/illness and the variety of meanings these terms carry for members of differing sociocultural populations. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AHS 2151(1)  Course ID:016312
Medical Terminology Word Roots
Emphasizes word structures and the definition of root words, suffixes, and prefixes from Greek and Latin. Lecture: 1 credit (15 contact hours).
Components: Lecture

AHS 2152(1)  Course ID:016313
Basic Elements of Terminology
Focuses on basic elements of medical words from Greek or Latin roots, together with additional emphasis on spelling and pronunciation. Pre-requisite: AHS 1151. Lecture: 1 credit (15 contact hours).
Components: Lecture

AHS 2153(1)  Course ID:016314
Advanced Word Roots & Systems
Focuses on advanced word structures and the definition of root words, suffixes, and prefixes from Greek and Latin that are related to human body structures, also includes the study of commonly used medical abbreviations. Pre-requisite: AHS 1152. Lecture: 1 credit (15 contact hours).
Components: Lecture

AIM 100(3)  Course ID:016284
Principles of Advanced Integrated Manufacturing
Introduces the founding principles/practices of manufacturing safety and health in a modern manufacturing environment. Covers current manufacturing quality control concepts and techniques used in industry with an emphasis on proper statistical methods and relevant software. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

AIM 1001(1.5)  Course ID:016583
Basic Safety in Manufacturing
Introduces basic manufacturing safety and ergonomic techniques. Pre-requisites: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 1.5 credits (30 contact hours).
Components: Lecture

AIM 1002(1.5)  Course ID:016584
Manufacturing With Quality
Introduces basic quality and auditing techniques as well as basic statistical tools used in the manufacturing environment. Lecture/Lab: 1.5 credits (30 contact hours)
Components: Lecture

AIM 1101(1)  Course ID:016585
Industrial Materials and Safety
Addresses safety in a traditional and CNC machining environment and introduces industrial materials and their properties. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 1.0 credits (20 contact hours).
Components: Lecture

AIM 1102(1)  Course ID:016586
Metal Removal and Metrology
Introduces the science of measurement and metal removal fundamentals for various industrial processes and materials. Pre-requisites: AIM 1101. Lecture: 1.0 credit (20 contact hours).
Components: Lecture

AIM 1103(1)  Course ID:016588
CNC-Nontraditional Machining
Introduces different types of nontraditional machining and CNC (G and M) coding used to control nontraditional machining. Pre-requisites: AIM 1102 or consent of instructor. Lecture/Lab: 1.0 credits (20 contact hours).
Components: Lecture

AIM 1201(1)  Course ID:016589
Introduction to Plastics
Introduces polymers and the plastic industry. Includes safety in the plastic manufacturing environment as well as the history of plastic polymers and industry advancements. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 1.0 credit (20 contact hours).
Components: Lecture

AIM 1220(1)  Course ID:016590
Plastic Formulation and Design
Presents the different polymer formulations (polymerization) and applications. Discusses product considerations, design for manufacturability(DFM) and extrusion. Pre-requisite: AIM 1201 or Consent of Instructor. Lecture/Lab: 1.0 credits (20 contact hours)
Components: Lecture

AIM 1230(1)  Course ID:016591
Plastic Molding Processes
Presents the industry standards and process techniques of thermforming, injection molding and laminating. Discusses different types of plastic resin and the proper handling and preparation for production. Pre-requisite: AIM 1202 or Consent of Instructor. Lecture/Lab: 1.0 credit (20 contact hours).
Components: Lecture

AIM 1601(2)  Course ID:016691
Principles of Advanced Integrated Manufacturing
Introduces basic manufacturing safety and ergonomic techniques. Pre-requisites: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical
AII 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. Pre-requisite: Reading and Mathematics assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 4.0 credits (90 contact hours). (30:1 Ratio Lab).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

AII 110(3) Course ID:005956
Power Distribution Systems
Provides instruction in the use of electrical, hydraulic, and pneumatic power as it applies 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. Pre-requisite: AII 100 or consent of instructor. Lecture/Lab: 3 credits (67.5 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

AII 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. Pre-requisite: AII 100 or consent of instructor. Lecture/Lab: 3.0 credits (75 contact hours), (30:1 Ratio Lab).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

AII 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. Pre-requisite: AII 140 or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours). (30:1 Ratio).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

AII 135(3) Course ID:007384
Industrial Refrigeration - I
Presents refrigeration fundamentals and associated components for individuals interested in safe, effective, and efficient maintenance and operation of industrial refrigeration equipment who may also be seeking RFTA credentialing. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AII 140(4) Course ID:005959
Industrial Controls I
Provides instruction in the integrated application of basic electrical and fluid power controls. Emphasizes electrical motor controls with starting, reversing, and stopping devices, as well as various hydraulic and pneumatic valves and speed control circuits. Prerequisite: AII 110 or consent of instructor. Lecture/Lab: 4 credits (90 contact hours). (30:1 Ratio).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

AII 145(6) Course ID:017229
Utility Technician I
Introduces the basics of safely constructing power lines. Covers pole climbing techniques, bucket truck operation and digger/derrick operation. Provides introductory training on all power line construction tools and equipment. Lecture: 1 credit hour (15 contact hours), Laboratory: 5 credit hours (225 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AII 160(1) Course ID:005961
Workplace Safety
Focuses on General Industry safety practices as defined by the Occupational Safety and Health Administration. Covers PPE, hazard identification, walking and working surfaces, as well as other recognized workplace safety issues. Students will earn the OSHA 10-hour General Industry safety card upon successful completion of the course. Pre-requisite: Reading assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 1 credit hour (15 contact hours).
Components: Lecture
Attributes: Technical

AII 220(3) Course ID:006565
The Integrated Power Grid
Introduces students to types of power plants that are tied to the electric grid other than fossil power plants. Provides overviews of nuclear, hydro, and many forms of renewable energy. Includes forms of alternative energy power plants such as solar, wind, and bio-mass power plants. Lecture: 3.0 (45 contact hours)
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AII 245(6) Utility Technician II
Covers construction of power lines. Teaches framing and use of tools required in construction. Emphasizes safety in establishing a work zone and utilizing rescue techniques. Pre-requisite: AII 145. Lecture: 1 credit hour (15 contact hours). Laboratory: 5 credit hours (225 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AII 290(0.1 - 5) Instructor Consent Required
Selected Topics in Advanced Integrated Technology
Includes selected topics in integrated technology, due to rapidly changing technology or in response to local needs. Covers topics which may vary from semester to semester at the discretion of the instructor. May repeat course with different topics to a maximum of five credit hours. Pre-requisite: Consent of instructor. Lecture/Lab: Varies by topic.
Components: Lecture
Attributes: Technical

AII 1001(2) Basic Electrical Knowledge
Provides introductory theory and application of DC/AC circuits, control transformers, and operation of DC power supplies. Pre-requisite: AII 145. Lecture: 1 credit hour (15 contact hours). Laboratory: 2 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

AII 1002(1) Power Development
Introduces electrical power systems used in industrial settings, including basic theory and application of alternators, electric motors, and three-phase. Pre-requisite: AII 1001 or Consent of Instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Integrated Lecture

AII 1003(1)Hydraulic/Pneumatic Fundamentals
Introduces basic theory and application of hydraulic and pneumatic industrial power systems. Pre-requisite: Reading assessment exam 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 1101(1) 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. Pre-requisite: AII 1001 or consent of instructor. Lecture/Lab: 1.0 credits (22.5 contact hours).
Components: Lecture

AII 1102(2) 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. Pre-requisite: AII 1003 or consent of instructor. Lecture/Lab: 2.0 credit (45 contact hours).
Components: Laboratory, Lecture

AII 1201(1) Piping, Pneumatic, & Installation
Focuses on the installation of pneumatic industrial systems, including interpretation of drawings and diagrams, fabrication of pipe and pig fittings, pneumatic supply lines, piping safety, and pipe installation for pneumatic systems. Pre-requisite: AII 1102 or consent of instructor. Lecture/Lab: 1 credit (25 contact hours).
Components: Laboratory, Lecture

AII 1203(1) Mechanical Installation
Focuses on the installation of electrical industrial systems, including interpretation of drawings and diagrams, fabrication of pipe and pig fittings, pneumatic supply lines, piping safety, and pipe installation for pneumatic systems. Pre-requisite: AII 1102 or consent of instructor. Lecture/Lab: 1 credit (25 contact hours).
Components: Laboratory, Lecture

AII 1301(2)Principles of Instrumentation
Introduces measurement and instrumentation concepts and applications by examining the four main components of instrumentation: temperature, pressure, flow, and level. Pre-requisite: AII 1401 or consent of instructor. Lecture/Lab: 2.0 credit (45.0 contact hours).
Components: Laboratory, Lecture

AII 1302(2) Integrated Process Control
Covers measurement and instrumentation concepts and applications and introduces the concepts of loop controls and the proper calibration of loops. Examines the importance of PID controllers in a control loop. Pre-requisite: AII 1301 or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture

AII 1401(2) Basic Electrical Controls
Provides instruction in the integrated application of basic electrical controls including electrical motor controls with starting, reversing, and stopping devices. Pre-requisite: AII 1101. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture

AII 1402(1) Basic Pneumatic Controls
Introduces the student to pneumatic speed control circuits. Uses air pressure regulators and flow controls to obtain cylinder speeds. Pre-requisite: AII 1102 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AII 1403(1) Basic Hydraulic Controls
Provides instruction in hydraulic speed and pressure control, includes flow control valves, metering circuits, pressure reducing valves, and sequence valves. Pre-requisite: AII 1102 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AII 160 Advanced Industrial Integrated
AIT 1501(2) Course ID:006164
Intermediate Electrical Controls
Provides instruction in the integrated application of advanced industrial controls for electrical systems. Emphasizes variable frequency drives, proximity sensors, SCR speed controls. Pre-requisite: AIT140 or AIT1401 or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture

AIT 1502(1) Course ID:006165
Intermediate Pneumatic Controls
Provides instruction in the integrated application of advanced industrial controls for pneumatic systems. Emphasizes pneumatic logic circuits. Pre-requisite: AIT 1402 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AIT 1503(1) Course ID:006166
Intermediate Hydraulic Controls
Provides instruction in the integrated application of advanced industrial controls for hydraulic circuits. Emphasizes hydraulic synchronization circuits and multi-pressure circuits. Pre-requisite: AIT 1403 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AIT 1901(1) Course ID:006562
Water and Steam Systems
Provides instruction in the main components and integration of water and steam systems within a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

AIT 1902(1) Course ID:006563
Air and Gas Flows
Provides instruction in the main components and integration of air and gas flows within a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

AIT 1903(1) Course ID:006564
Power Distribution
Provides instruction in the main components and integration of the power distribution of a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

AIT 2001(2) Course ID:006167
Integrated Process Management
Emphasizes project team organization. Introduces the following concepts: cycle time, production time, first pass yield, and barrier identification. Pre-requisite: AIT 130 or Consent of Instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture

AIT 2002(2) Course ID:006168
Quality Control and SPC
Introduces quality control including understanding acceptance criteria with tolerances, data collection, and data reporting. Pre-requisite: AIT 130 or Consent of Instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture

AIT 2101(1) Course ID:006169
Predictive/Preventive Maintenance and Lubrication
Focuses on maintenance techniques and procedures used with advanced and highly technical industrial machinery including v-belt and shaft drives, couplings, chain drives, bearings and seals, brakes and clutches. Pre-requisite: AIT 1101 or consent of instructor. Lecture/ Lab: 1.0 credits (22.5 contact hours).
Components: Laboratory, Lecture

AIT 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. Pre-requisite: 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

AIT 2103(2) Course ID:006171
Advanced Mechanical
Focuses on various installation methods required for advanced and highly technical industrial equipment components. Pre-requisite: Reading and Mathematics assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture

AIT 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: AIT 1401 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AIT 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, modification of target parameters, and safety interlocks. Pre-requisite: AIT 1401, Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

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 relationships 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. Prerequisites: None.
Components: Lecture
Attributes: Technical

AMS 102(2) Course ID:000782
Introduction to Leadership
This course is designed to acquaint the student with the fundamental skills necessary to be a leader, both in military and civilian context. Course also covers basic military map reading skills. Prerequisites: None.
Components: Lecture
Attributes: Other

AMS 211(2) Course ID:004854
Advanced Leadership I
This course focuses on both theoretical and practical aspects of leadership. Students will examine topics such as written and oral communication, effective listening, assertiveness, personality, adult development, motivation, and organizational culture and change. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

AMS 250(1) Course ID:005380
Basic Military Science Lab
A hands-on practicum which exposes the student to the military skills required for basic technical and tactical competence to enter the Advanced Course. Laboratory, two hours per week and two week-end exercises. May be repeated to a maximum of four credits. Practicum: 1 credit (32 contact hours).
Components: Practicum
Attributes: Technical

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-fields i.e., cultural, biological, archaeology, and linguistic. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

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, 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 stereotypes 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. Lecture: 3 credits.
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

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. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of developmental reading courses. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

ANT 221(3) Course ID:002196
Native People of North America
Surveys the aboriginal Native American cultures of North America, and of the impact of four centuries of British, French, Spanish and Russian contact on the Indian communities. Consider the status of Native Americans in present-day North America. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

ANT 223(3) Course ID:007065
Culture Change and Globalization
Introduces the historical development of anthropology, its role in colonization and globalization, and types of cultural change processes. Includes discussions of how human societies have struggled for political and economic identity in a post-colonial world and for cultural survival and self-determination. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading or completion of developmental reading courses. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

ANA Anatomy and Neurobiology

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/cell/mutation with adult anatomy. The central nervous system will be emphasized. Pre-requisite: Introductory biology or zoology. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science
ANT 235(3) Course ID:002205
Food and Culture
Examines the ways values and behaviors related to food production and consumption are shaped by the physical and cultural environment. Draws data from non-Western and Western cultures. Discusses implications of cultural factors for contemporary issues in nutrition. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of developmental reading courses. Lecture: 3 credits (45 contact hours)
Components:
Attributes: Cultural Studies, SB - Social Behavior Science

ANT 240(3) Course ID:002206
Introduction to Archaeology
Introduces the theories, techniques, and strategies used by archaeologists to recover and interpret information about past cultures. Lecture: 3 credits (45 contact hours)
Components:
Attributes: SB - Social Behavior Science, Other

ANT 241(3) Course ID:000045
Origins of Old World Civilization
Surveys cultural developments in the Old World from the earliest times to the beginning of civilization. Lecture: 3 credits (45 contact hours)
Components:
Attributes: Cultural Studies, SB - Social Behavior Science

ANT 242(3) Course ID:000046
Origins of New World Civilization
Surveys the origin and growth of prehistoric Native American cultures as revealed by archaeological data. Lecture: 3 credits (45 contact hours)
Components:
Attributes: Cultural Studies, SB - Social Behavior Science

APS Apprenticeship Studies

APS 201(20 - 40) Course ID:000048
Apprenticeship Studies
Complements 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). Pre-requisites: Completion of national/state certified apprenticeship program. Lecture/Lab: 20-40 contact hours (144 contact hours)
Components:
Attributes: Technical

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 process technology, 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. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (120 contact hours)
Components: Laboratory, Lecture
Attributes: Technical

APT 104(3) Course ID:004537
Rotating and Reciprocating Equipment
Presents fundamental knowledge necessary for process operations and entry-level maintenance personnel. Develops an understanding of mechanical energy and the way it is put to use in industrial applications. Covers various forms of energy and how this energy can be converted to perform work. Includes topics on operating instructions, basic troubleshooting skills, and basic maintenance skills typically performed by personnel on pumps, compressors, and prime movers. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (120 contact hours)
Components: Laboratory, Lecture
Attributes: Technical

APT 106(2) Course ID:004538
Process Chemistry
Presents fundamental knowledge of chemistry necessary for process operations. Focuses on the basics of chemistry as they apply to water treatment and hydrocarbon processing. Includes, but are not limited to: basic chemical terminology, molecular formulas, structural formulas, common chemical symbols, and the chemical nature of the operator's job, work environment, and products. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours)
Components:
Attributes: Technical

APT 108(2) Course ID:004539
Stationary Equipment
Presents fundamental knowledge in the operation and troubleshooting of stationary equipment. Provides a solid foundation on which to build sound maintenance and operations programs. Covers common equipment designs, operating instructions, troubleshooting aids to help identify malfunctions, guides to handling emergency situations and routine scheduled maintenance tasks. Includes topics on heat exchangers, heat transfer, cooling towers, and refrigeration. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture
Attributes: Technical

APT 142(4) Course ID:004541
Instrumentation
Develops an understanding of how to control and operate processes. Involves work on real life simulators to ensure an understanding of process operations has been achieved. Includes measurement fundamentals and control strategies as applied to unit operations, industrial chemical operations, operating tactics and strategies. Provides basic instruction in process control instrumentation as it relates to the manufacturing operations and will promote smoother, more efficient control of automated systems. Pre-requisite: APT 108 with a grade of C or greater OR Instructor Consent. Lecture/Lab: 4.0 credits (105 contact hours)
Components:
Attributes: Technical

APT 144(4) Course ID:004542
Process Operations
Develops an understanding of modern processing techniques, practical examples of normal and abnormal operating situations, and advanced training in enhancing productivity while cutting operating costs. Provides maintenance personnel and technicians an understanding of the overall process and their roles in maintaining efficient production rates. Involves work on real life simulators to insure an understanding of process operations. Includes unit operations, industrial chemical operations, and a variety of equipment used in industrial processes. Pre-requisite: APT 108 with a grade of C or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (120 contact hours/80:1 ratio)
Components: Laboratory, Lecture
Attributes: Technical

APT 148(2) Course ID:004543
Process Applications
Develops an understanding of how to control and operate processes. Involves work on real life simulators to insure an understanding of process operations. Includes a study of interactive control strategies in unit operations, industrial chemical operations, and compressor operations and applications. Pre-requisite: APT 108 with a grade of C or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours)
Components:
Attributes: Technical

APT 149(2) Course ID:004544
Process Operation Safety
Develops an understanding of how to safely start-up, shutdown, control and operate industrial processes. Includes safe operating tactics and strategies, and procedures as they apply to unit operations and industrial chemical operations. Pre-requisite: APT 108 with a grade of C or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours)
Components: Lecture
Attributes: Technical

APT 154(6) Course ID:005336
Power Plant Practice
Develops an understanding of power plant basics, systems, and equipment and how they are utilized to safely start-up, shutdown, control, and operate a power generation unit. Includes safe operating tactics, strategies, and procedures as they apply to unit operations and various safety and protection equipment incorporated into unit operations. Pre-requisite: APT 108 with a grade of C or greater. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (60 contact hours)
Components: Laboratory, Lecture
Attributes: Technical

APT 155(2) Course ID:005337
Power Plant Protection
Develops an understanding of how to safely start-up, shutdown, control and operate a power generation unit. Includes safe operating tactics, strategies, and procedures as they apply to unit operations and various safety and protection equipment incorporated into unit operations. Pre-requisite: APT 108 with a grade of C or greater. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (60 contact hours)
Components: Laboratory, Lecture
Attributes: Technical

APT 159(3) Course ID:005510
Lineman Technology I
Trains the student in the use of and/or assembly of materials, tools, and equipment common to the electric utility industry. Provides an overview of the energy delivery system, personal responsibility in regard to safety and job requirements, qualifies the student to climb poles, and trains the student to perform tasks typically required of entry-level apprentices. Pre-requisite: APT 108 or Consent of Instructor. Co-requisite: APT 159, EET 150, EET 151. Lecture: 3 credits (45 contact hours)
Components:
Attributes: Technical

APT 159(4) Course ID:005511
Lineman Technology I Lab
Provides hands on experience in the use of and/or assembly of materials, tools, and equipment common to the electric utility industry. Provides an opportunity for the student to climb poles and perform tasks typically required of entry-level apprentices. Pre-requisite: APT 108 or Consent of Instructor. Co-requisite: APT 159, EET 150, EET 151. Laboratory: 4 credits (240 contact hours)
Components: Laboratory
Attributes: Technical

APT 202(3) Course ID:004545
Federally Mandated Training
Presents a fundamental knowledge of OSHA, EPA and DOT regulations as concerned with hazardous waste generators and the fundamental knowledge necessary for process operations to qualify for hazardous response to incidents. Covers the required skills to qualify them for HAZWOPER Operations level response. Includes, but are not limited to: HAZCOM, HAZWOPER Operations level, personal protective equipment, working at elevated heights, respirators, SCBAs, and specific hazardous materials. Pre-requisite: Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture
Attributes: Technical
ART 204(1) Course ID:000454
Safety Skills Training
Presents a fundamental knowledge of OSHA, EPA and DOT regulations as concerned with hazardous waste generators. This fundamental knowledge is necessary for processes operations to qualify for hazardous response to incidents. The student will be trained in the required skills to qualify them for HAZWOPER Operations level response. The course studies include, but are not limited to: Hazcom, Hazzwoper Operations level, personal protective equipment, working at elevated heights, respirators, SCBAs, and specific hazardous materials. (This course will be presented in a semester format.) Pre-requisite: APT 148 with a grade of C or greater. Co-requisite: APT 202. Laboratory: 1 credit (60 contact hours/60:1 ratio).
Components: Laboratory
Attributes: Technical

ART 251(2) Course ID:001036
Application of Process Operations
Prepares the student to demonstrate a working knowledge of the application of the various components involved in process operations. Pre-requisite: Instructor Consent. Lecture/Lab: 2.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

ART 258(3) Course ID:005512
Lineman Technology II
Expands training in the use of and/or assembly of materials, tools, and operation of equipment common to the electric utility industry. Provides pole top rescue techniques, Kilo-Watt Hour (KWH) meter reading, installation of overhead service, voltage testing, operation of bucket truck, splicing and other knowledge and skills required of intermediate-level apprentices.
Pre-requisite: APT 158, APT 159, EET 150, EET 151. Co-requisite: ART 259. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ART 259(4) Course ID:005513
Lineman Technology II Lab
Provides hands on experience in the use of and/or assembly of intermediate materials, tools, and equipment common to the electric utility industry. Also provides an opportunity for the student to load/unload and set poles, operate bucket truck and other hydraulic equipment, and perform tasks typically required of intermediate-level apprentices.
Pre-requisite: APT 158, APT 159, EET 150, EET 151. Co-requisite: APT 258. Laboratory: 4 credits (240 contact hours).
Components: Laboratory
Attributes: Technical

ART 291(2 - 3) Course ID:001037
Instructor Consent Required
Special Problems in Applied Process Technologies
Provides additional experience in identified areas of student's need. The subject area and/or tasks must be approved by an assigned instructor. Must also have a component where the student is evaluated by an industry professional. Pre-requisite: Consent of Instructor. Discussion: 2.0 - 3.0 credits (45-135 contact hours).
Components: Discussion
Attributes: Technical

ART Art
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. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

ART 104(3) Course ID:004346
Introduction to African Art
Examines the arts of Africa, including sculpture, painting, pottery, textiles, architecture, altar arts, human adornment and performance art, on the basis of style, iconography, and function, and in relation to religious, political, market and daily contexts. Explores the ways in which Africa has been conceived and deconstructs the assumptions shaping each approach. Addresses the processes (and problems) of collecting and displaying African art throughout the course. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ART 105(3) Course ID:000035
Ancient Through Medieval Art History
Surveys the historical development of art and architecture with primary emphasis on cultures of Egypt, Western Asia, Greece, Rome and Medieval Europe. Pre-requisite: English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 106(3) Course ID:000036
Renaissance Through Modern Art History
Surveys the historical development of Western art and architecture from the 14th Century through the present. Pre-requisite: English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 108(3) Course ID:000730
Introduction to World Art
Provides a basic overview of the study, language, history, and relevance of the visual art from world cultures and designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory studio experiences. Pre-requisite: RDG 185, ENC 091. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 110(3) Course ID:0004110
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: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 112(3) Course ID:0004111
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: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 113(3) Course ID:0004112
3-Dimensional Design
Investigates three-dimensional form and spatial design, including line, plane, mass, and structure. Includes the study of various materials, tools, and sculptural techniques. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 121(3) Course ID:0004015
School Art
Introduction to art and to the teaching of art in the lower (1-3) elementary grades. Lecture: 3 credits. Laboratory: 0 credits.
Components: Laboratory, Lecture

ART 201(3) Course ID:0000621
Ancient Art History
Examines the art and architecture of the ancient Mediterranean, focusing on one or more of the cultures of Greece, Rome, Egypt, and the Near East. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 202(3) Course ID:0000457
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

ART 203(3) Course ID:000018
Renaissance Art History
Examines the art in Europe from the 14th to 18th centuries, with emphasis on the major styles, artists, and developments from the early Renaissance through the age of the Baroque. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 204(3) Course ID:000086
Modern Art History
Examines the visual arts from the 18th through the 20th centuries, with primary emphasis on Europe and the United States. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 205(3) Course ID:015848
African American Art
Provides an introduction to African American Art.
Examines the creation of the painting, sculpture, graphic arts, photography, and performance art from the early settlements of the United States to the present. Pre-requisite: Current placement scores for college level reading established by KCTCS, or completion of RDG 030 or RDG 185, and ENC 091. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and 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: 1.0 credit hours; Laboratory: 2.0 credit hours.
Components: Laboratory, Lecture
Attributes: Other

ART 210(3) Course ID:0004114
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. Pre-requisite: ART 110. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other
ART 211(3) Course ID:004113
Life Drawing
Introduces basic life drawing skills and concepts. Explores topics such as projects in line, value, space, and composition in a variety of media with the human form as the subject matter. Includes drawings in class from a nude human model. Pre-requisite: ART 110. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 220(3) Course ID:004115
Painting I
Studio investigation of the technical and formal concerns of painting, including an understanding of color theory, materials, paint application, and image making. Pre-requisite: ART 110 or Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 221(3) Course ID:004116
Painting II
Includes advanced studio investigation of the technical and formal concerns of painting. Continues the development of individual style and expression. Pre-requisite: ART 220. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 231(3) Course ID:007075
Jewelry/Metals I
Introduces the aesthetic and technical issues relating to basic metalsmithing techniques such as sawing, filing, piercing, forging, forming, soldering, and finishing. Emphasizes instructor-led critiques. Provides an introduction to historical and contemporary metal work. Lecture/Lab: 3.0 credit (90 contact hours).
Components: Lecture
Attributes: Other

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 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 240(3) Course ID:004117
Ceramics I
Introduces a variety of forming and finishing techniques used in working with clay and glaze. Hand building, wheel throwing, surface alteration and glazing will be investigated. Includes drawing in class from a nude model. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 241(3) Course ID:004118
Ceramics II
Continues studio investigation of ceramic techniques in hand-building and/or wheel throwing, glazing, surface decoration, glazing and firing. Continued development of individual style and personal expression. Pre-requisite: ART 240. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 251(3) Course ID:016141
Graphic Communication I
Provides an introduction to graphic design principles and methods and techniques used to incorporate type and image. Applies the elements and principles of design and basic color theories for design concepts. Pre-requisite or Co-requisite: ART 110 & ART 112, OR consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 252(3) Course ID:016142
Typography
Introduces core principles of typography through a series of progressively complex studio assignments supported by readings, lectures, and software tutorials. Pre-requisite: ART 251 OR consent of instructor. Lecture/Lab: 3.0 credit hours (90 contact hours).
Components: Lecture
Attributes: Other

ART 260(3) Course ID:004119
Sculpture I
Studio investigation of the technical and formal concerns of three-dimensional expression. Basic sculptural methods of modeling, casting, carving and assembling will be explored in a variety of media. Pre-requisite: ART 110, ART110. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 261(3) Course ID:006207
Sculpture II
Continues the development of sculptural techniques started in Sculpture I. Exploration of subject matter and personal creativity will be emphasized. Students will continue to develop and utilize problem solving skills. Pre-requisite: ART 260 or consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 270(3) Course ID:006208
Printmaking I
Introduces the possibilities and potential of the printmaking media for generating fine arts ideas and images. Explores traditional and contemporary printmaking processes of monotype and monoprint, relief, lithography, intaglio, and stencil. Covers black and white and multiple color printing methods, introduces printmaking vocabulary and aesthetics. Pre-requisite: (ART 110 and ART 120) or consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 271(3) Course ID:006209
Printmaking II
Explores concepts and techniques in intaglio, lithography, screen-print and/or relief printing with an introduction to contemporary computer/digital aided printmaking processes. Stresses individual expression by creating original imagery while continuing to learn about printmaking as a process. Emphasizes two-dimensional design and color theory concepts and drawing skills. Pre-requisite: ART 270 or permission of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 281(3) Course ID:006211
Digital Photography I
Introduction to the skills, techniques and applications needed to create and manipulate digital photographs and to develop an understanding of photography as a fine art medium. Instruction will include the use of the digital camera and its controls to compose and capture photographs, scanning, printing and using Adobe Photoshop as a “digital darkroom”. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 282(3) Course ID:006212
Digital Photography II
Emphasizes the creation of fine art photographs that reflect the intent and vision of the photographer. Stresses the technical and aesthetic issues relating to image capture, manipulation, printing and presentation. Explores visual and conceptual skills, professional workflow and photographic history. Pre-requisite: ART 281 or permission of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 290(3) Course ID:006213
Survival Skills for Artists
Introduces skills needed to attain a higher level of education and/or a career in the visual arts. Explores the wording and formatting of credentials and statements. Covers the critical language of art, digital and printed portfolios, exhibiting artwork, marketing, career opportunities, the hazards of art materials and setting up an art studio. Pre-requisite: 9 credits of ART 100 / 200 level classes or permission of instructor. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other

ASL American Sign Language
ASL 101(3) Course ID:005753
American Sign Language I
A functional-notational approach to learning beginning American Sign Language (ASL). Development of basic knowledge of and understanding of conversational ASL and cultural features of the language and community. Lecture: 3 credits (45 contact hours). Laboratory: 0 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: Cultural Studies, University Course (Eastern Kentucky University)

ASL 102(3) Course ID:005754
American Sign Language II
Continued development of basic knowledge of and understanding of conversational ASL and cultural features of the language and community. Pre-requisite: ASL 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: Cultural Studies, University Course (Eastern Kentucky University)

ASL 201(3) Course ID:005755
American Sign Language III
Development of intermediate expressive and receptive ASL skills and cultural features of the language and community. Pre-requisite: ASL 102 with a minimum grade of C or permission of instructor. Lecture: 45 contact hours. Laboratory: 15 contact hours.
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University)

ASL 202(3) Course ID:005756
American Sign Language IV
Continued development of intermediate expressive and receptive ASL skills and cultural features of the language and community. Pre-requisite: ASL 201 with a minimum grade of C or permission of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 0 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University)
AST 101(3) Course ID:000058
Frontiers of Astronomy
Covers the life histories of stars, the nature of black holes and quasars, the origin of the universe, planets of the solar system, and the possibilities for extraterrestrial life. Includes observation-based activities. A one-semester introductory course for non-science majors. Credit is not given to students who have received credit for AST 191 or AST 192. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

AST 102(3) Course ID:000077
Introduction to Aircraft Maintenance I
Teaches knowledge and skills necessary in measuring, calculating, and documenting aircraft weight and balance. Provides instruction in the identification, cause, prevention, removal and treatment of corrosion. Includes interior and exterior cleaning of the aircraft. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 104(3) Course ID:007115
Introduction to Aircraft Maintenance II
Provides instruction on the aerodynamic and physical forces acting on an aircraft in flight, basic electricity theory, concepts, components, physics, meter operation and use, battery construction and servicing, and basic principles of physics as related to aviation maintenance. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 106(3) Course ID:007116
Introduction to Aircraft Maintenance III
Provides instruction in reading and interpretation of basic industrial and aircraft blue prints, basic handling and ground service techniques of the aircraft, the use of maintenance publications, aircraft mechanic privileges and limitations, and the use and completion of required forms and records. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 108(3) Course ID:007117
Introduction to Aircraft Maintenance IV
Provides an understanding of basic hydraulic functions, the fabrication of tubing and flex hoses as well as seal comparability. Includes instruction in structural inspection, materials and fasteners, and repair methods. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

AST 191(3) Course ID:00060
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:00062
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. Pre-requisite: MAT065 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. Pre-requisite or co-requisite: AST101 or AST191 or AST192, MAT 065 or two years of high school algebra; or consent of the instructor. Lab: 1.0 (15 Contact Hours).
Components: Laboratory
Attributes: SL - Science Laboratory

ATE 100(1) Course ID:007113
Aviation Math
Covers mathematics related to the aerodynamic and physical forces acting on an aircraft in flight. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 1.0 credit (40.5 contact hours).
Components: Lecture
Attributes: Technical

ATE 102(3) Course ID:007114
Introduction to Aircraft Maintenance I
Teaches knowledge and skills necessary in measuring, calculating, and documenting aircraft weight and balance. Provides instruction in the identification, cause, prevention, removal and treatment of corrosion. Includes interior and exterior cleaning of the aircraft. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 202(3) Course ID:007118
Aircraft Structures I
Covers the principles of sheet metal layout, bending, and rivet installation. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 204(3) Course ID:007119
Aircraft Structures II
Provides instruction in the inspection, service and repair of welded aircraft assemblies and structures, metal and composite aircraft structures, including laminated and honeycomb structures, plastic materials, interior furnishings and access openings. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 206(3) Course ID:007120
Aircraft Structures III
Includes inspection of airframes to determine airworthiness. Covers the methods and techniques used in the assembly of 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. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 208(3) Course ID:007121
Aircraft Structures IV
Provides instruction in the repair of wood structures, the inspection, testing, repair, selection, and installation of aircraft fabric covering; and the identification, application and inspection of tubing and fitting materials. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 222(3) Course ID:007122
Aircraft Systems I
Covers the repair of hydraulic and pneumatic power systems components. Includes the inspection, check, service, and repair of landing gear, retraction systems, shock struts, brakes, wheels, tires, and steering 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. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 224(3) Course ID:007123
Aircraft Systems II
Covers checking, inspecting, troubleshooting and repair of aircraft electrical system and system components. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 226(3) Course ID:007124
Aircraft Systems III
Covers checking, inspecting, servicing, repair and troubleshooting of fuel systems and components, heating, cooling, air conditioning, pressurization, and oxygen systems; and rain and ice control and removal systems. Includes types of fuels used in various aircraft and a discussion of the problems associated with fueling and various techniques in fueling. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 228(3) Course ID:007125
Aircraft Systems IV
Covers the inspection, checking, servicing, repair and troubleshooting of navigational and communication systems, fire detection and extinguishing systems. Covers the inspection, troubleshooting, and repair of heading, speed, altitude, time, attitude, temperature, pressure and position indicating systems and installation of instruments. Provides for the inspection, checking and servicing of speed and take-off warning systems, electrical brake controls, antiskid systems, and autopilot systems; and the pitot-static system, floating compass system and the gyros used for flight instruments. Includes the role of mechanics when working with precision instruments. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 242(3) Course ID:007126
Aircraft Powerplants I
Covers theory and development of the aircraft internal combustion engine as well as instruction in the use of engine construction and repair. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 244(3) Course ID:007127
Aircraft Powerplants II
Covers instruction, checking, servicing and the repair of opposed and radial engines and reciprocating engine installation. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical
ATE 246(3)
Course ID: 007128

Aircraft Powerplants III
Includes 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. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture
Attributes: Technical

ATE 248(3)
Course ID: 007129

Aircraft Powerplants IV
Includes construction, repair and overhaul of turbine engines. Covers the operation and inspection of turbine engines. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture
Attributes: Technical

ATE 252(3)
Course ID: 007130

Aircraft Powerplants Systems I
Includes the purpose, use, and selection of lubricants; repair of engine lubrication system components; and the inspection, checking, servicing, troubleshooting and repairing of engine lubrication systems, propeller synchronization, engine control systems, fixed-pitch, constant-speed, and feathering propellers, and propeller governing systems. Provides for the identification and selection of propeller lubricants, balance propellers, and repair of propeller control system components. Covers the installation, troubleshooting and the removal of propellers. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108 with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture
Attributes: Technical

ATE 254(3)
Course ID: 007131

Aircraft Powerplants Systems II
Covers troubleshooting, servicing and repair of fluid flow indicating systems and repair of engine temperature, pressure, and rpm indicating systems. Includes the operation and overhaul of magneto and ignition harness; repair of engine ignition system components; and the inspection, check, service, troubleshooting, and repair of reciprocating and turbine engine ignition systems. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture
Attributes: Technical

ATE 258(3)
Course ID: 007133

Aircraft Powerplants Systems IV
Covers the operation, inspection and repair of fuel systems and components of aircraft fuel systems and fuel metering systems. Includes the inspection and repair of engine cooling system components, engine exhaust system components, and engine fire detection and extinguishing systems. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture
Attributes: Technical

ATE 299(1 - 6)
Course ID: 0004550

Instructor Consent Required
Selected Topics in Aviation Maintenance Technology:
(Topic)
Various aviation maintenance 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. Pre-requisite: Consent of Instructor.

Components: Laboratory, Lecture
Attributes: Technical

AUT 110(3)
Course ID: 0001050

Brake Systems
Involves the operational theory and application of hydraulic and anti-lock brake systems; discusses disc and drum brakes. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AUT 111(2)
Course ID: 0001051

Brake Systems Lab
Develops skills in the diagnosis and repair of hydraulic and anti-lock brake systems, covering both disc and drum type braking systems. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 110. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

AUT 130(3)
Course ID: 0001052

Manual Drive Train and Axles
Involves an in-depth study of principles of operation, construction, and service of manual transmissions and related drive train components (differentials, clutches, u-joints, rear wheel drive and 4-wheel drive). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AUT 131(2)
Course ID: 0001053

Manual Drive Train and Axles Lab
Develops skills in the diagnosis and repair of manual transmissions and related drive train components (differentials, clutches, u-joints, rear wheel drive, and 4-wheel drive). The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 130. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

AUT 140(3)
Course ID: 0001054

Basic Fuel and Ignition Systems
Includes the theory, component identification, application, operation, service and repair of the basic automotive ignition, fuel, and emission systems, including related components. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AUT 141(2)
Course ID: 0001055

Basic Fuel and Ignition Systems Lab
Provides skills necessary to diagnose and repair the automotive basic ignition, fuel, and emission systems and related components are developed. The student may be provided a unique work experience alternating between periods of work on-site and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 140. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

AUT 142(3)
Course ID: 0001056

Emission Systems
Presents the theory, component identification, application, operation, service and repair of advanced automotive ignition, fuel, and emission systems, including related components. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AUT 143(2)
Course ID: 0001057

Emission Systems Lab
Introduces skills necessary to diagnose, service and repair automotive advanced ignition, fuel, and emission systems, including related components are developed. The student may be provided a work study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 142. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

AUT 160(3)
Course ID: 0001058

Suspension and Steering
Introduces 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
Attributes: Technical

AUT 161(2)
Course ID: 0001059

Suspension and Steering Lab
Develops skills necessary to diagnose 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. Pre-requisite or Co-requisite: AUT 160. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

AUT 180(3)
Course ID: 0001060

Automatic Transmission/Transaxle
Involves an in-depth study of principles of operation and overhaul of automatic transmissions and transaxles. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AUT 181(2)
Course ID: 0001061

Automatic Transmission/Transaxle Lab
Develops skills necessary to diagnose 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. Pre-requisite or Co-requisite: AUT 180. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

AUT 198(1)
Course ID: 0001062

Instructor Consent Required
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. Pre-requisite: Permission of the Instructor. Practicum: 1 credit (75 contact hours).

Components: Practicum
Attributes: Technical

AUT 199(1)
Course ID: 0001063

Instructor Consent Required
Co-op provides supervised on-the-job work experience related to the student’s educational objectives. Students who participate in the Cooperative Education program receive compensation for their work. Pre-requisite: Permission of the Instructor. Co-op: 1 credit (75 contact hours).

Components: Co-Op
Attributes: Technical

AUT 240(3)
Course ID: 0001064

Computer Control Systems and Diagnosis
Introduces the comprehensive diagnostics of on-board computer control systems, including distributorless ignition systems. Provides the student an in-depth study of principles of operation and overhaul of automatic ignitions, fuel, and emission systems. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AUT 241(3)
Course ID: 0001065

Computer Control Systems and Diagnosis 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
Attributes: Technical
AUT 241(2) Course ID:001065
Computer Control Systems and Diagnosis Lab
Introduces the skills necessary to diagnose and repair drivability problems associated with on-board computer control systems. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 240. Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

AUT 275(3) Course ID:006889
Hybrid and Electric Vehicle Technology
Focuses on the theories, principles, and diagnosis relating to hybrid automobiles. Pre-requisite: ADX 120 and ADX 121 and ADX 260 and ADX 261. Co-requisite: AUT 276. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

AUT 278(2) Course ID:006890
Hybrid and Electric Vehicle Technology Lab
Focuses on the theories, principles, and diagnosis relating to hybrid automobiles. The student may be provided a work-study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: ADX 120 and ADX 121 and ADX 260 and ADX 261. Co-requisite: AUT 275. Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

AUT 290(1) Course ID:001066
Instructor Consent Required
Special Problems I
A course designed for the student who has demonstrated specific needs for additional training. The student may be provided a work/study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: Permission of Instructor. Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory Attributes: Technical

AUT 291(2) Course ID:001067
Instructor Consent Required
Special Problems II
A course designed for the student who has demonstrated specific needs for additional training. The student may be provided a work/study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: Permission of Instructor. Laboratory: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

AUT 292(3) Course ID:001068
Instructor Consent Required
Special Problems III
A course designed for the student who has demonstrated specific needs for additional training. The student may be provided a work/study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: Permission of Instructor. Laboratory: 3.0 credits (135 contact hours).
Components: Laboratory Attributes: Technical

AUT 298(1) Course ID:001069
Instructor Consent Required
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. Pre-requisite: Permission of the Instructor. Practicum: 1.0 credit (75 contact hours).
Components: Practicum Attributes: Technical

AUT 299(1) Course ID:001070
Instructor Consent Required
Co-operative Education Program
Co-op provides supervised on-the-job work experience related to the students educational objectives. Students who participate in the Cooperative Education program receive compensation for their work. Pre-requisite: Permission of the Instructor. Co-op: 1.0 credit (75 contact hours).
Components: Co-Op Attributes: Technical

BAS Business Administration System

BAS 110(3) Course ID:016239
Worksheets in Business Applications
Focuses on the application of worksheet features to business practices. Provides students with the knowledge and skills necessary to apply worksheet enhanced functions to derive charts, graphs and tables to aid in analyzing business data. Provides students the opportunity to think critically and find solutions to realistic business problems through use of available data analysis tools. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

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. Pre-requisite: Completion of or concurrent enrollment in MAT 85 or higher level math or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

BAS 125(3) Course ID:016879
Social Media Marketing: Fundamental Concepts, Skills, and Strategies
Cultivates a basic to intermediate understanding of social media history, terminology, and concepts as they apply to the marketing and business sectors. Integrates a working knowledge of platform management and simple social media marketing strategy. Lecture: 3.0 credits (45 contact hours). Pre-requisite: Placement scores for college level reading or completion of developmental reading courses.
Components: Lecture Attributes: Technical

BAS 127(3) Course ID:016880
Social Media Marketing: Project Management and Implementation Strategies
Prepares students to create a comprehensive social media marketing campaign, applicable to any business or organization. Learn intermediate social media strategies and best practices for engagement. Introduces the student to social media policy, procedure, and engagement guidelines that will explain how all stakeholders and groups in an organization should monitor and participate in social media interactions. Pre-requisite: BAS 125. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

BAS 155(3) 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: Technical

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, Technical

BAS 170(3) Course ID:005244
Entrepreneurship
Introduces the student to the role of the entrepreneur in business. Topics include stages of business development, marketing, finance, legal issues, and planning for new ventures. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

BAS 200(3) Course ID:000104
Small Business Management
Introduces the student to the role of the entrepreneur in business. Topics include stages of business development, marketing, finance, legal issues, and planning for new ventures. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

BAS 200A(1)

BAS 200B(1.5)

BAS 201(3) Course ID:004465
Customer Service Improvement Skills
Students will develop cognitive processes and behavioral skills needed to improve personal and work group effectiveness. Techniques are discussed and demonstrated in assessing internal and external customer needs and develop plans for delivery of quality customer service. Topics include customer’s point of view, benchmarking quality customer service processes, developing partnerships with customers, measuring customer satisfaction, self-evaluation, personal mission statements, time management, communication and listening techniques, coaching, mentoring, group problem solving, and decision making techniques. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

BAS 212(3) Course ID:000105
Introduction to Financial Management
Introduces the basic concepts of managing financial resources and techniques of financial analysis used for practical business decisions. Demonstrates use of financial ratios to evaluate the past performance of the firm, financial planning techniques, the effect of leverage on profitability and risk, the time value of money, and contemporary approaches to working capital management and capital budgeting. Constructs financial ratios, constructs pro forma financial statements, conducts break-even analysis, and computes present and future values of funds. Pre-requisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

BAS 256(2)

BAS 256(3) Course ID:002280
International Business
Introduces the student to the role of the entrepreneur in business. Topics include stages of business development, marketing, finance, legal issues, and planning for new ventures. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules
BAS 260(2)  Course ID:004432
Professional Development and Protocol
Prepare students approaching the major career transition from college to work either as a graduating student or as a cooperative education student. Focuses on acceptable business protocol and how to project a professional image. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

BAS 267(3)  Course ID:000107
Introduction to Business Law
Introduces the state and federal court systems, tort and criminal law, law of contracts, partnership, sale of goods, government regulations, bailment, negotiable instruments, methods of research, and the judicial system (discovery, trial, and appellate processes). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 270(1)  Course ID:000106
Business Employability Seminar
Creates an error-free portfolio of business employment documents, using computer technology to assist with composition, proofreading, and formatting. Demonstrates proper interviewing skills through mock interviews. Course is offered on a Pass/Fail basis. Pre-requisite: CIT 105 Introduction to Computers, Sophomore Standing, and Business Administration Program Students only or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Enrichment Career Counseling, Technical

BAS 274(3)  Course ID:001008
Human Resource Management
Introduces basic methods of recruiting, selecting, training, compensating, and maintaining a productive workforce. Examines concepts of effective employee relations including collective bargaining, contract administration, and safety and health programs. Emphasizes techniques for systematic human resource planning and development of policies consistent with government regulations. Pre-requisite: BAS 160 and BAS 283 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 280(1 - 4)  Course ID:004474
Business Internship
Provides an opportunity for a work experience related to the student's educational objective and concepts learned in courses. (One hour of credit, up to a maximum of four credit hours, awarded for every 40 hours of approved work experience, not to exceed 160 hours). Pre-requisite: Sophomore Standing or Consent of Instructor. Practicum/Internship: 1.0 - 4.0 credits
Components: Practicum
Attributes: Technical

BAS 282(3)  Course ID:000109
Principles of Marketing
Introduces marketing functions as it applies to various types of business organizations with attention to the marketing concept, including the marketing mix of product, price, promotion, and distribution decisions; international marketing; and social responsibility. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 284(3)  Course ID:000112
Applied Management Skills
Applies management theories and techniques with emphasis on the action-skills that managers need for success. Examination of various course topics in this capstone course include: delegating, motivating employees, team building, conflict management, coaching, and managing change. Pre-requisite: (BAS 160 and BAS 283) or prior supervisory experience. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 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, Technical

BAS 293(3)  Course ID:000524
Principles of Finance
Examines the financial framework of planning, organizing, leading, and controlling as it is utilized to introduce the management process. Introduces the interdisciplinary nature of management with the inclusion of relevant aspects of human behavior and rational decision making. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 298(0.1 - 6)  Course ID:000119
Instructor Consent Required
Selected Topics in Business Management: (Option Topic)
Technological developments, new business issues, and/or business topics are presented and studied. Pre-requisite: Consent of Instructor. Lecture: 0.1- 6.0 credits (1.5-90 contact hours).
Components: Lecture
Attributes: Technical

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

BBT 100(3)  Course ID:016692
Introduction to Cellular Technology
Introduces the world of wireless communications. Provides information regarding how to correctly set up and troubleshoot a variety of equipment used in radio communications. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

BEX 100(3)  Course ID:001118
Basic Electricity for Non-Majors
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. Co-requisite: BEX 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BEX 101(2)  Course ID:005119
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. Co-requisite: BEX 100. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
Contemporary topics will include infectious diseases, microbes and society.

**BIO 118(3) Course ID:004988**

**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. Pre-requisite/Co-requisite: BIO 112 (if a student taking the courses concurrently fails or withdraws from BIO 112, they may continue to complete and earn credit for BIO 113 with instructor’s consent). Laboratory: 1 credit (30 contact hours).

Components: Laboratory
Attributes: SL - Science Laboratory, Course Also Offered in Modules

**BIO 114(3) Course ID:000167**

**Biology I**
Examines basic biological concepts such as cell structure and function, metabolism, the chemical basis of biology, protein synthesis, genetics, and evolution with emphasis placed on the cellular level. Co-requisite: BIO 115. Lecture: 3.0 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). Co-requisite: BIO 114.

Components: Laboratory
Attributes: SL - Science Laboratory

**BIO 116(3) Course ID:000168**

**Biology II**
Examines basic biological concepts such as ecology, biological diversity (to include the kingdoms of life), reproduction, growth, and development, with emphasis placed on multicellular systems. Co-requisite: BIO 117. Lecture: 3.0 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). Co-requisite: 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 human impacts by humans. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

**BIO 121(1) Course ID:000191**

**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. Pre-requisite/Co-requisite: 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. Pre-requisite: 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. Pre-requisite: College Readiness in Math, Writing and Reading. Lecture: 3.0 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 135(4) Course ID:000179**

**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. Pre-requisite: Minimum ACT Composite score 16 (or KCTCS determined equivalency); OR completion with C or better of any college biology or chemistry course; OR ACT of 13-15 with co-requisite OR supplemental instruction; OR consent of instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

**BIO 137(4 - 2) Course ID:017259**

**Supplemental Instruction for Human Anatomy and Physiology I**
Provides supplementary instruction for students who do not meet college readiness standards for BIO 137. Covers content necessary for success in BIO 137 as needed. Pre-requisite: Consent of BIO 137 Instructor. Co-requisite: BIO 137, Lecture: 1.0-2.0 credit hours (15-30 contact hours)

Components: Lecture
Attributes: Other

**BIO 139(4) Course ID:000174**

**Human Anatomy and Physiology II with Laboratory**
The second semester continues the study of the interrelationships of organ systems, including the endocrine, reproductive, cardiovascular, lymphatic, digestive, respiratory, and urinary systems. Pre-requisite: BIO 137. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

**BIO 140(3) Course ID:0000130**

**Botany**
The anatomy, physiology, and biodiversity of plants emphasizing life processes, the cell, development, heredity, plant systems, evolution, taxonomy, phylology and ecology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, 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, phylology and ecology. Includes laboratory studies of the morphology, physiology, and reproduction of plants with emphasis on flowering plants. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

**BIO 142(3) Course ID:0000128**

**Zoology**
The anatomy, physiology, and biodiversity of animals emphasizing life processes, the cell, development, heredity, body systems, evolution, taxonomy, phylyology and ecology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

**BIO 143(4) Course ID:000180**

**Zoology with Laboratory**
The anatomy, physiology, and biodiversity of animals emphasizing life processes, the cell, development, heredity, body systems, evolution, taxonomy, phylyology and ecology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

**BIO 144(3) Course ID:0002215**

**Insect Biology**
Provides 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 145(1) Course ID:017085**

**Insect Biology Laboratory**
Investigate insect structure and function utilizing basic biological laboratory methodologies including study in taxonomy, phylyology, behavior and ecology. Pre-requisite or Co-requisite: BIO 144 - Insect Biology. Lab: 1 credit hour (30 contact hours).

Components: Laboratory
Attributes: SL - Science Laboratory
BIO 148(3) Course ID:016082
Introductory Biology I
BIO 148 introduces the student to the biological mechanisms operating at the molecular cellular and population level that contribute to the origin maintenance and evolution of biodiversity including the origins and history of the evolutionary process. Course material is presented within a phylogenetic context emphasizing the shared history of all living organisms on earth through common ancestry. The first semester of an integrated one-year sequence (BIO 148 and BIO 152), Pre-requisites: Math ACT of 23 or above or MA 109, past or current enrollment in CHE 105. (KCTCS equivalents: MA 109=MAT 150, CHE 105=CHE 170). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

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: 3 credits (45 contact hours). Pre-requisite: (CHE 170 or concurrent enrollment) or consent of instructor.
Components: Lecture
Attributes: SN - Science Laboratory

BIO 151(2) Course ID:000136
Principles of Biology Laboratory I
Includes studies of cellular and molecular biology. Laboratory: 2 credits (60 contact hours). Pre-requisite: BIO 150 or Concurrent enrollment.
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 152(3) Course ID:000137
Principles of Biology II
Presents knowledge of organismal, population and community biology. Part two of a two semester sequence (BIO 150 and BIO 152). Lecture: 3 credits (45 contact hours). Pre-requisite: BIO 150 or consent of instructor.
Components: Lecture
Attributes: SN - Science Laboratory

BIO 153(2) Course ID:000138
Principles of Biology Laboratory II
Includes organismal, population and community biology. Laboratory: 2 credits (60 contact hours). Pre-requisite: BIO 152 or Concurrent enrollment.
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 155(1) Course ID:016428
Introductory Biology Laboratory
This course is designed to provide a broad introduction into the data, results, and information associated with biological research, and into some of the analytical approaches used to test biological hypotheses. Communication of these aspects of biological research is crucial, and much of this lab course will be focused on the development of effective writing skills for the delivery of this information. Pre-requisite: Math ACT of 23 or above or MA 109, past or current enrollment in CHE 105. (KCTCS equivalents: MA 109=MAT 150, CHE 105=CHE 170). Laboratory: 1 credit hour (2 contact hours).
Components: Laboratory
Attributes: University Course (University of Kentucky)

BIO 155(3) Course ID:006342
Astrobiology
Examines topics related to the origins of planets, the requirements for life, the search for life away from Earth, the societal implications of discovering other forms of life, and the future of life on Earth and in space from a multidisciplinary perspective. Credit not available for both BIO 155 and AST 155. Pre-requisite: MT085 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 209(2) Course ID:000142
Introductory Microbiology Laboratory
Laboratory exercises in general microbiology. Laboratory: 4 hours. Pre-requisite: One unit of chemistry or consent of instructor. BIO 209/228 should be taken concurrently.
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 220 Course ID:000139
The Genetic Perspective (3)
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 geneticians point of view. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science Laboratory

BIO 225(4) Course ID:000182
Medical Microbiology with Laboratory
The characteristics of microorganisms and their relation to health and disease are studied. Pre-requisite: BIO 137 and BIO 139 or equivalent. Lecture: 2 credits (30 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

BIO 226(3) Course ID:000140
Principles of Microbiology
Introduction to fundamental microbiological principles and techniques emphasizing structural functional, ecological, and evolutionary relationships among microorganisms. Pre-requisite: 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
Introduces fundamental microbiological principles and techniques emphasizing structural, functional, ecological, and evolutionary relationships among microorganisms. Includes laboratory exercises in general microbiology. Pre-requisite: BIO 114 or BIO 150 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 2 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science Laboratory

BIO 295(1 - 3) Course ID:000195
Instructor Consent Required
Independent Investigation in Biology
Investigates specific topics or problems in the field of the biological sciences. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of Instructor. Laboratory: Varies with credit.
Components: Independent Study, Lecture
Attributes: Other

BIO 299(1 - 3) Course ID:000197
Instructor Consent Required
Selected Topics in Biology: (Topic)
Addresses recent trends and discoveries in selected areas of biology in a seminar format. Emphasizes discussion and critical thinking. May be repeated with different subtitle for a maximum of six credits. Pre-requisite: Permission of Instructor. Lecture: Varies with credit.
Components: Lecture
Attributes: Other

BIO 1120(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 basic studies of cell structure, function, energetics, and cell division. Pre-requisite: BIO 1121. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

BIO 1123(0.75) Course ID:006124
Classification, Genetics, and Evolution
Covers basic studies of the classification system, genetics, and evolution. Pre-requisite: 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. Pre-requisite: BIO 1123. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

BIO 1351(1) Course ID:016826
Cells, Skin & Bones
Presents the fundamental structure of the human body including Cell and Cellular Physiology, the Integumentary System, and the Skeletal System. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: Reading and English assessment exam scores above the KCTCS developmental level and a mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Laboratory: 0.75 credits (11.25 contact hours). Clinical: 0.25 credits (7.5 contact hours).
Components: Clinical, Laboratory

BIO 1352(1) Course ID:016827
Muscle, Regulators & Generation
Presents the fundamental structure of the human body including the Muscular System, Nervous system, Endocrine System, and Reproductive System. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1351 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours). Laboratory: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

BIO 1353(1) Course ID:016828
Lymph, Blood & Gases
Presents the fundamental structure of the human body including the Lymphatic System, Cardiovascular System, and Respiratory System. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1352 or Consent of Instructor. Lecture: 1 credit (18.75 contact hours).
Components: Laboratory, Lecture

BIO 1354(1) Course ID:016829
Digestive, Renal & Electrolytes
Presents the fundamental structure of the human body including the Digestive System, the Urinary System, and Water and Electrolyte Balance. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1353 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours). Laboratory: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

BMT Biomedical Equipment Technology
BMT 130(4) Course ID:005953
Essentials of Analog and Digital Electronics for BMTs: Level 2
Emphasizes advanced analog and digital devices and associated circuits as well as their use within medical equipment. Pre-requisite: BMT 120. Lecture/Lab: 4.0 credits (75 contact hours) (30:1 Ratio Lab)
Components: Lecture

BMT 213(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. Pre-requisite: BMT 110. Co-requisite: BMT 230. Lecture/Lab: 4.0 credits (75 contact hours) (30:1 Ratio Lab)
Components: Lecture
BRX Blueprint Reading

BRX 110(2) Course ID: 001146
Basic Blueprint Reading for Machinist
Basic applied math, lines, multi-view drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings are presented. Safety will be emphasized as an integral part of the course. Lecture: 2 credit hours (30 contact hours).
Components: Lecture Attributes: Technical

BRX 112(4) Course ID: 001147
Blueprint Reading for Machinist
Provides the student with a beginning and advanced series of lectures, demonstrations, and practice exercises in the study of prints. Safety will be emphasized as an integral part of this course. Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Technical

BRX 120(3) Course ID: 001148
Basic Blueprint Reading
Includes basic applied math, lines, multiview drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings. Emphasizes safety as an integral part of the course. Lecture: 3 credits (45 contact hours).
Components: Lecture Course Equivalents: ELT 102 Attributes: Course Also Offered in Modules, Technical

BRX 210(2) Course ID: 001151
Mechanical Blueprint Reading
Provides the student with an advanced series of lectures, demonstrations, and practice exercises in the study of prints involving math (both decimal and metric), combination of lines, multi-view drawings, assembly drawings, fasteners, machining and construction processes, datum coordinates, numerical control prints, sheet metal prints, welding, casting and forging prints. Safety will be emphasized. Lecture: 2 credits (30 contact hours). Pre-requisite: BRX 110 with a grade of C or greater or Consent of Instructor.
Components: Lecture Attributes: Technical

BRX 220(3) Course ID: 001150
Blueprint Reading for Construction
Provides a series of lectures, demonstrations, and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings, building materials and specifications lists, and construction dimensioning systems and charts/schedules. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

BRX 1201(1) Course ID: 005631
Print Reading Fundamentals
Presents basic applied math, lettering, lines, multiview drawings, title blocks, material lists and the drawing change system. Lecture: 1 credit (15 contact hours).
Components: Lecture

BRX 1202(1) Course ID: 005632
Drawing Views and Setup
Presents sketching, auxiliary and sectional views. Pre-requisite: (BRX 1201 with a grade of C or better) or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

BRX 1203(1) Course ID: 005633
Dimensioning and Tolerances
Presents print dimensioning and tolerances and thread specifications. Pre-requisite: (BRX 1202 with a grade of C or better) or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

BRX 2201(1) Course ID: 016150
Basic Construction Prints
Provides a series of lectures, demonstrations, and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings and construction dimensioning systems and measurements. Lecture: 1.0 credits. (15 contact hours).
Components: Lecture

BRX 2202(2) Course ID: 016151
Construction Blueprints
Provides a series of lectures and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings, building materials and specifications lists, and charts/schedules. Pre-requisite: BRX 2201 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture

BTN 101(1) Course ID: 004277
Introduction to Biotechnology
Introduces current and future applications of biotechnology. Covers biotechnology career opportunities and bioethics. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

BTN 105(3) Course ID: 007346
Applied Laboratory Calculations for Biotechnology
Introduces concepts, techniques, and applications of common basic laboratory calculations that are routinely used in the biotechnology laboratory. Emphasizes application of basic computational concepts required of biotechnicians. Requires students to apply strategies to calculate amounts of chemicals required to make solutions, calibrate instruments, collect data, and interpret data. Introduces some computer applications. Pre-requisite: MAT 065 or equivalent as determined by KCTCS examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

BTN 106(3) Course ID: 007280
Fundamentals of Scientific Communication
Introduces methods and strategies necessary for written, oral, and visual communications as they are used in popular science. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

BTN 110(4) Course ID: 004984
Nucleic Acid Methods
Covers theory of DNA structure and function. Emphasizes laboratory skills in a variety of DNA manipulations. Pre-requisite: One semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 115(4) Course ID: 007347
Biomanufacturing
Surveys basic biomanufacturing principles and procedures designed to assure the quality and safety of a product as the manufacturing team moves the product down the biotechnology production pipeline. Introduces upstream and downstream manufacturing processes through a combination of lecture and laboratory activities. Emphasizes the role of government oversight and regulation during discovery, development, and manufacturing of bioproducts as outlined in the Good Laboratory and Good Manufacturing Practices (GLP and GMP) of the Food and Drug Administration (FDA). Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of program coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 125(2) Course ID: 007349
Bioinformatics I
Introduces the concepts and tools used in the application of information technology to the field of biology. Includes methods for data collection, storing and accessing, biological data, fundamentals of sequence alignment, biological molecule structure prediction, and data mining and analysis. Pre-requisite or Co-requisite: Completion of, or concurrent enrollment in BTN 201 and BTN 202. Lab: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical

BTN 126(2) Course ID: 007350
Bioinformatics II
Applies concepts introduced in BTN 125 in the design and implementation of basic programming relating to bioinformatics problems. Emphasizes current trends in bioinformatics programming language, databases, and technology. Pre-requisite: Completion of BTN 125 with a grade of C or better or permission of program coordinator. Lab: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical

BTN 160(4) 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 Attributes: Technical

BTN 201(4) Course ID: 005620
Biotechnology Techniques I
Introduces theory and techniques for media and solution preparations, use of analytical equipment, and laboratory safety. Includes various nucleic acid techniques, gene expression and purification, and bioinformatics. Pre-requisite: A semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 202(4) Course ID: 005621
Biotechnology Techniques II
Covers various protein techniques, extraction and purification, and assays. Pre-requisite: BTN 201. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 210(4) 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. Pre-requisite: BTN 110 with a grade of C or better or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

BTN 220(4) Course ID: 004986
Immunological Methods
Covers immunological theory and applications with focus on techniques such as isolation, purification, and labeling of antibody molecules. Pre-requisite: (BTN 110 with a grade of C or better) or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical
BTN 225(4) 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 polyacrylamide gel electrophoresis. Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of the program coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 295(1 - 3) 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
Attributes: Technical

BTN 298(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 C or better, or permission of program coordinator. Practicum: 1.0 - 8.0 credits (60-480 contact hours).
Components: Practicum
Attributes: Technical

BTN 299(1 - 3) Course ID:007355
Selected Topics in Biotechnology
Addresses recent trends and discoveries in selected areas of biotechnology in a seminar format. Emphasizes discussion and critical thinking. May be repeated for a maximum of 12 credits if topics and/or learning outcomes vary. Pre-requisite: Permission of instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

BTS Biomedical Technology Systems

BTS 100(1) Course ID:007224
Biomedical Technology Systems: A Career Perspective
Offers insight into the profession for which services are provided to Biomedical Technology Systems with regards to career opportunities, job expectations, and professional growth. Pre-requisite: RDG 30 or equivalent based on KCTCS placement exam. Lecture. 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

BTS 110(1) Course ID:007225
Environmental Risks and Precautionary Measures for the BTS Service Professional
Presents potential risks for which those involved with Biomedical Technology Systems will encounter and precautionary measures taken to assure that no harm is done. Focuses on safety awareness and management throughout the entire healthcare setting including identifying risks associated with the use and maintenance of medical technologies. Pre-requisite: RDG 30 or equivalent based on KCTCS placement exam. Lecture. 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

BTS 120(2) Course ID:007226
Essentials of Biomedical Electronics I
Presents basic analog and digital semiconductor devices and their applications within medical products. Addresses how to read electronic schematics and apply basic troubleshooting skills to circuits that utilize both discrete components and integrated circuits. Focuses on such devices as diodes, transistors, thyristors, logic gates and flip-flops, and digital timing devices. Pre-requisite: AIT 110 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture
Attributes: Technical

BTS 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 BTS 120. Addresses how to read electronic schematics and apply basic troubleshooting skills to circuits that utilize integrated-packaged devices and the systems that comprise them. Focuses on such devices as operational amplifiers, combinational and sequential logic devices, microprocessors, microcontrollers, and programmable logic devices. Emphasis is also given to communication circuits used in medical products. Pre-requisite: BTS 120 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture
Attributes: Technical

BTS 130(2) Course ID:007228
Medical Equipment Management I
Presents medical technology management, principles and practices with regard to medical equipment assessment, planning, acquisition, acceptance, and replacement and disposal. Pre-requisite: BTS 100, BTS 110 and AIT 1101 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture
Attributes: Technical

BTS 140(1) 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 that utilize principles involving light, sound, fluid dynamics, heat transfer, and electrochemistry. Pre-requisite: PHY 171. Pre-requisite or Co-requisite: BTS 125. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

BTS 200(2) Course ID:007230
Patient Care Support and Management Systems
Presents systems employed throughout healthcare in support of patient care and patient management efforts with regard to their application, operation, and routine evaluation. Emphasizes systems that influence patient care in an indirect manner rather than directly providing patient care. Focuses on variety of systems including utility power systems, water and medical gas systems, nurse call systems, patient beds, sterilizers, infant abduction systems, and telemetry. Pre-requisite: BTS 125 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture
Attributes: Technical

BTS 210(2) Course ID:007231
Diagnostic Medical Equipment and Non-Radiographic Imaging Modalities
Presents medical equipment and instrumentation used to assess biophysical signals and images for diagnostic purposes. Examines such technology in terms of principles of operation and measuring its performance. Focuses on a variety of diagnostic technologies including the-electrocardiograph and electroencephalograph machines, the pulmonary function analyzer, video endoscopy systems, ultrasound-generating machines, and magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, BTS 125, and BTS 140 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture
Attributes: Technical

BTS 220(2) Course ID:007232
Laboratory Devices, Instruments, and Analyzers
Presents instruments employed in the clinical laboratory setting with regard to purpose, design, maintenance, and management. Focuses on technologies such as centrifuges, microscopes, hematology analyzers, blood gas analyzers, electrolyte analyzers, clinical chemistry analyzers, and tissue processors. Pre-requisite: BIO 135 with a grade of C or better BTS 110 with a grade of C or better BTS 125 with a grade of C or better BTS 140 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture
Attributes: Technical

BTS 230(2) Course ID:007233
Medical Equipment Management II
Presents medical technology management principles and practices with regard to ongoing training of staff, ongoing medical equipment maintenance, ongoing 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: BTS 130 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture
Attributes: Technical

BTS 250(2) Course ID:007234
Introduction to Medical-Based IT Networks and Standards
Presents IT networks employed throughout the healthcare setting that are interconnected to patient care equipment and 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
Attributes: Technical

BTS 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 densitometers. Pre-requisite: BIO 135, BTS 110, BTS 125, BTS 140 and BTS 230 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture
Attributes: Technical

BTS 270(2) Course ID:007236
Therapeutic Equipment Modalities
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, electroosmotic units, defibrillators, mechanical ventilators, anesthesia machines, infant incubators, and surgical lasers. Pre-requisite: BIO 135, BTS 125, and BTS 140 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture
Attributes: Technical

BTS 299(1 - 3) Course ID:007356
Independent Investigation in Biotechnology
Investigates specific topics or problems in the field of the biotechnology under direction of the faculty. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of instructor. Lab: 1.0 - 3.0 credits (30-90 contact hours).
Components: Laboratory
Attributes: Technical

BTS 220(3) Course ID:007357
Independent Investigation in Biotechnology
Investigates specific topics or problems in the field of the biotechnology under direction of the faculty. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of instructor. Lab: 1.0 - 3.0 credits (30-90 contact hours).
Components: Laboratory
Attributes: Technical

BTS 299(1 - 3) Course ID:007358
Independent Investigation in Biotechnology
Investigates specific topics or problems in the field of the biotechnology under direction of the faculty. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of instructor. Lab: 1.0 - 3.0 credits (30-90 contact hours).
Components: Laboratory
Attributes: Technical

BTS 299(1 - 3) Course ID:007359
Independent Investigation in Biotechnology
Investigates specific topics or problems in the field of the biotechnology under direction of the faculty. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of instructor. Lab: 1.0 - 3.0 credits (30-90 contact hours).
Components: Laboratory
Attributes: Technical

BTS 299(1 - 3) Course ID:007360
Independent Investigation in Biotechnology
Investigates specific topics or problems in the field of the biotechnology under direction of the faculty. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of instructor. Lab: 1.0 - 3.0 credits (30-90 contact hours).
Components: Laboratory
Attributes: Technical
CAD 100(3) Course ID: 000216
Introduction to Computer Aided Design
Applies fundamental principles and capabilities of CAD, basic drafting conventions, and operations. Provides an in-depth study of computer aided drafting commands, terminology, command utilization, and skill development. Lecture: 1.0 credit (15 contact hours), Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Digital Literacy, Course Also Offered in Modules, Technical

CAD 102(4) Course ID: 0004052
Drafting Fundamentals
Explores the fundamentals of drafting in the use of equipment through measurement of lines, angles, circles, arcs, and irregular curves, alphabet of lines, freehand sketching; geometric constructions; orthographic projection: characteristics of lines and planes; lettering; and dimensioning techniques. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 108(3) Course ID: 005186
Introduction to Surveying
Introduces the elements of surveying including measurements, distance corrections, leveling, angles, area computation, computer calculations, topographic surveying, electronic distance measuring instruments, construction surveying, GPS, and GIS. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAD 112(4) Course ID: 004054
Engineering Graphics
Explores lines and planes as they relate to orthogonal projection to show the size and shape of objects, as well as for descriptive geometry in solving advanced problems. Includes application of geometric elements of sectioning; techniques involved in oblique projections, axonometric projections, and perspective drawings; and dimensioning techniques and symbol usage common to all drafting disciplines. Pre-requisite: CAD 102 with a grade of C or better or Approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 120(4) Course ID: 004067
Introduction to Architecture
Introduces a practical approach to architectural drafting using board and/or computer aided drafting methods as it relates to residential and commercial architecture, specifications, and structural systems including wood, masonry, concrete, and steel. Pre-requisite: CAD 100 OR CAD 103 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 130(4) Course ID: 004057
Descriptive Geometry
Examines the spatial relationships between points, lines, and planes in various orthographic projections with graphical solutions; explores the processes to solve problems using auxiliary view projection methods, revolutions, intersections, and developments. Pre-requisite: CAD 112 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 150(4) 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. Pre-requisite: CAD 100 OR CAD 103 with a grade of C or better or approval of the Instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CAD 200(4) Course ID: 000218
Intermediate Computer Aided Drafting
Produce advanced 2- and three-dimensional object drawings with CAD software and 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. Pre-requisite: CAD 100 OR CAD 103 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 210(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: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

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 drafting principles in relation to the manufacturing industry. Covers screw-thread design and related fastening concepts as they relate to manufactured items and construction. Pre-requisite: CAD 100 OR CAD 103 with a grade of C or better or Approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 216(4) Course ID: 016429
Building Information Modeling
Introduces Building Information Modeling (BIM), an intelligent model-based process that provides insight to help plan, design, construct, manage buildings and infrastructure through three dimensional models, and generate construction drawing sheet sets. Creates structures for analytical purposes such as visualization, quality take off, cost estimating, scheduling, coordination and facility management across various fields, including architectural, structural and mechanical, electrical, and plumbing. Using BIM technology enables discovery of potential conflicts between these fields. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 220(4) Course ID: 004066
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 interiors and exteriors of student designs. Pre-requisite: CAD 120 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 222(4) Course ID: 004061
Mechanical Design
Explores the design principles, mechanical adaptation, and drafting practices involved in the development of mechanical working drawings and the design principles in various manufacturing disciplines; gear drawing and design, and cam and follower drafting and design; mechanical assemblies, machine design, power transmission, bearings, and seals in assemblies. Involves shop processes in these mechanical designs. Pre-requisite: CAD 100 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 230(4) 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. Pre-requisite: CAD 120 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical
CAD 240(4) 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 applications and study. Pre-requisite: CAD 100 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 252(4) Course ID: 004070
Commercial Detailing
Explores commercial drafting building codes, building structure, materials, and structural drawing and detailing. Emphasizes calculations to determine appropriate structural members. Pre-requisite: CAD 120 with a grade of C or better or Approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 262(4) Course ID: 005185
Working Drawings
Prepare 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. Pre-requisite: CAD 120 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 291(2) Course ID: 004063
Special Problems
Allows the student to gain intermediate experience in their perspective fields through projects and tasks assigned by the instructor 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 determined by the program instructor. Pre-requisite: Permission of the Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAD 292(4) Course ID: 005188
Department Consent Required - Industrial Applications
Emphasizes 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. Pre-requisite: Approval of instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 293(1 - 4) Course ID: 004064
Department Consent Required - 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. Pre-requisite: Approval of Program Coordinator. Lab: 1.0 - 4.0 credits (30-120 contact hours).
Components: Laboratory Attributes: Technical

CAD 298(1 - 3) Course ID: 004065
Practicum
Provides supervised work experiences related to the student's educational objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Approval of Program Coordinator. Practicum: 1.0-3.0 credits (45-135 contact hours).
Components: Practicum Attributes: Technical

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. Pre-requisite: Approval of Program Coordinator. Co-op: 1.0-3.0 credits (45-135 contact hours).
Components: Co-Op Attributes: Technical

CAR 126(3) Course ID: 001152
Intro to Construction
Provides a discussion of the different employment opportunities of carpentry related careers within the construction industry including different construction systems and methods as well as basic management of a construction project. Emphasizes the different building materials and the correct use of hand and power tools. Includes shop and job-site safety. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 127(1) Course ID: 001153
Intro to Construction - Lab
Permits students to research different employment opportunities of carpentry-related careers. Introduces the student to different construction systems and methods as well as practice basic management methods of a construction project. Permits student to become familiar with common building materials and the correct use of hand and power tools. Includes shop and job-site safety standards. Co-requisite: CAR 126. Laboratory: 1 credit (30 contact hours).
Components: Laboratory Attributes: Technical

CAR 140(3) Course ID: 001154
Surveying & Foundations
Enables the student to become familiar with construction surveying methods, site layout procedures and materials used in the foundation of construction systems as well as discussion on the use of the buildings levels, transit and laser levels. Covers the characteristics of concrete, excavation procedures, forming methods and material estimating. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 141(2) Course ID: 001155
Surveying & Foundations-Lab
Familiarizes the student with construction surveying methods, site layout procedures and materials used in the construction of foundation systems as well as the application of the builders levelf, transit and laser levels. Covers the application of concrete procedures, excavation procedures, forming methods and material estimating. Co-requisite: CAR 140. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 150(3) Course ID: 001156
Concrete Formwork
Introduces the carpentry student to heavy and commercial concrete form construction methods. Covers information about properties of concrete as a building material, rigging, concrete wall form systems, above grade floor systems, vertical 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. Co-requisite: CAR 150. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 190(3) Course ID: 0001158
Light Frame Construction I
Emphasizes methods of floor, wall and stair framing, layout and construction. Provides discussion of industry safety standards and building codes. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 191(2) Course ID: 0001159
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. Co-requisite: CAR 190. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 196(3) Course ID: 0001160
Light Frame Construction II
Covers basic roof design and combination roof designs used in the construction industry including the layout and installation practices that will be used to fabricate and install ceiling and roof framing systems. Provides discussion of job-site safety practice, scaffold and ladder safety that deals with roof construction, and building code requirements for roof construction and material estimating. Lecture: 3 credits (45 contact hours).
Components: Laboratory Attributes: Technical

CAR 197(2) Course ID: 0001161
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. Lecture: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 198(1 - 6) Course ID: 005344
Instructor Consent Required - Special Topics in Carpentry
Special Topics in Carpenter Technology 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. Pre-requisite: Consent of Instructor. Lecture: 1-6 credits (15-90 contact hours), Laboratory: 1-6 credits (30-180 contact hours).
Components: Lecture Attributes: Technical

CAR 199(2 - 4) Course ID: 016145
Co-op in Construction I
Refines the techniques and skills taught in the previous carpentry courses. Provides a supervised on-the-job experience related to the student's educational and career training objectives. Pre-requisite: ISX 100 and/or permission of instructor. Co-op: 2-4.0 credits (150-300 contact hours).
Components: Co-Op Attributes: Technical

CAR 200(3) Course ID: 0001162
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 Attributes: Course Also Offered in Modules, Technical
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. Co-requisite: CAR 200. Laboratory: 2 credits (60 contact hours). Components: Laboratory Attributes: Course Also Offered in Modules, Technical
CAR 240(3)  Course ID:001165  
Light Frame Construction IV
Covers the concepts that support the planning, construction and installation methods for kitchen and bath cabinetry and countertops. Provides discussion of special finish trim techniques including finish stair construction and millwork. Co-requisite: CAR 240. Laboratory: 2 credits (60 contact hours). Components: Laboratory Attributes: Technical
CAR 270(3)  Course ID:007299  
Green Building
Integrates principles of green building technologies and methods of 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 Attributes: Technical
CAR 298(2)  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. Pre-requisite: ISX 100 and/or Permission from program instructor. Practicum: 2 credits (150 contact hours). Components: Practicum Attributes: Technical
CAR 2001(1)  Course ID:016152  
Light Frame Construction III - Interior
Presents the concepts of interior finish materials and methods of installation. Lecture: 1.0 credits (15 contact hours). Components: Lecture
CAR 2002(1)  Course ID:016153  
Light Frame Construction III - Exterior
Presents the concepts of exterior finish materials and methods of installation. Lecture: 1.0 credits (15 contact hours). Components: Lecture
CAR 2003(1)  Course ID:016154  
Light Frame Construction III - Scheduling
Presents the concepts of interior and exterior finish materials and methods of installation. Lecture: 1.0 credits (15 contact hours). Components: Lecture
CAR 2011(1)  Course ID:016155  
Light Frame Construction III Lab Interior
Provides an opportunity for students to perform basic applications of the concepts of interior finish methods for light frame construction. Co-requisite: CAR 2001, Pre-requisite OR Co-requisite: CAR 2001. Laboratory: 1.0 credits (30 contact hours). Components: Laboratory
CAR 2012(1)  Course ID:016156  
Light Frame Construction III Lab Exterior
Provides an opportunity for students to perform basic applications of the concepts of exterior finish methods for light frame construction. Co-requisite: CAR 2002, Pre-requisite OR Co-requisite: CAR 2002. Laboratory: 1.0 credits (30 contact hours). Components: Laboratory
CDH 110(3)  Course ID:016830  
Dental Health Communication Skills
Provides an overview of oral health communication, oral health literacy, and patient assessment interviewing skills for the Community Dental Health Coordinator. Emphasizes impact of oral health literacy on one’s health. Includes communication strategies, verbal and nonverbal communication skills. Covers motivational interviewing, human behaviors, and health concepts emphasizing oral health. Incorporates patient assessment, feedback, education, and behavior change interventions for dental patients. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours) Components: Lecture Attributes: Technical
CDH 115(3)  Course ID:016831  
Dental Health Coordination, Documentation, Reporting, and Finance
Provides an overview of coordination, documentation and reporting approaches for working with families as well as individuals. Includes family assessment, case documentation and overview of the services system. Covers health care finance, the referral process and components of case management. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical
CDH 125(2)  Course ID:016832  
Dental Health Teaching and Learning Skills
Provides an overview of teaching and learning skills as they apply to the Dental Health field. Includes teaching and learning techniques, goal setting, critical thinking, and interviewing skills for the dental health advocate. Covers internet usage and security as well as an introduction to concepts of lifelong learning. Pre-requisite: Must be a registered Dental Hygienist (RDH). Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 2.0 credits (30 contact hours). Components: Lecture Attributes: Technical
CDH 220(3)  Course ID:016833  
Dental Health Advocacy and Outreach
Overview of Community Health Worker and the Community Dental Health Coordinator responsibilities. Includes advocacy concepts, process of advocacy in the community, and assisting underserved local populations in health and social services. Development of a personal health and wellness plan covered. Community outreach topics and strategies emphasized. General concepts of writing grant proposals covered. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical
CDH 245(6)  Course ID:016834  
Community Dental Health Coordinator Internship
Demonstrates practical application of the Community Dental Health Coordinator (CDHC) skills in a practicum setting. Includes knowledge and skills required to organize, develop and manage integrated dental care in community-based clinics within practicum standards. Pre-requisite: Must be a registered Dental Hygienist (RDH), Practicum: 6.0 hours (360 contact hours). Components: Lecture Attributes: Technical
CET 150(3)  Course ID:004703  
Civil Engineering Graphics
This course provides the opportunity for the student to learn the basic theory necessary to generate and understand typical civil engineering working drawings. The student will develop graph and communication skills using current industry standard software. Pre-requisite: CAD 100 or ACH 185/195. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Components: Laboratory, Lecture Attributes: Technical
CET 200(3)  Course ID:004704  
Civil Engineering Materials
The course will provide a practical look at current practice in the use of materials for civil engineering applications. Students will learn test procedures, design considerations, and overall evaluation methods for these materials. The course will include the study of soils, aggregates, concrete, and asphalt cement. Pre-requisite: ACH 160. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Components: Laboratory, Lecture Attributes: Technical
CET 210(3)  Course ID:004705  
Structural Analysis and Design
The course will cover building structures 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. Pre-requisite: ACH 225. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Technical
CET 220(4)  Course ID:004706  
Intermediate Surveying
The course will introduce the application of surveying practices for route surveying for highways, construction staking, and topographic surveys. Students will perform deed research and evaluation, convert outdated deed descriptions into current measurements, and prepare record plots. Pre-requisite: CE 211. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (45 contact hours). Components: Laboratory, Lecture Attributes: Technical
CET 260(3)  Course ID:004707  
Hydrology and Drainage
Students will be introduced to the fundamentals of hydrology, including hydraulics of open and closed systems, water quality and drainage. Characteristics of pressure and flows in pipes, storm water runoff, culvert and ditch flow will be studied. Pre-requisite: ACH 160, ACH 225, and PHY 211, or consent of instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Components: Laboratory, Lecture Attributes: Technical
CET 280(3)  Course ID:004708  
Highway Design
Students will be introduced to the fundamentals of highway design. Different components involved in designing a typical highway, including planning, surveying, mapping, and preliminary and final design will be explored using computer design software. Pre-requisite: CAD 100 or ACH 185/195, MA 109, and CE 211. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Components: Laboratory, Lecture Attributes: Technical
CHE 120(3) Course ID: 000237
Chemistry in Society
Introduces non-science majors to the main concepts and applications of chemistry in our society. Pre-requisite: (Completion of one developmental math course above Pre-Algebra with a grade of "C" or better) OR (College level math ACT score) OR equivalent. Lecture: 3.0 credits (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical, SL - Science, SN - Science

CHE 125(1) Course ID: 006172
Chemistry in Society Laboratory
Reinforces concepts covered in CHE 120 and introduces scientific inquiry through selected experiments. Pre-requisite or Co-requisite: CHE 120. Laboratory: 1 credit (45 contact hours) (45:1 ratio).

Components: Laboratory
Attributes: SN - Science, Course Also Offered in Modules

CHE 130(3) Course ID: 017266
Introductory General and Biological Chemistry
Introduces the elementary principles of general, organic and biological chemistry. Pre-requisite: (Applied Mathematics OR Intermediate Algebra or higher) with a grade of "C" or better OR (College level math ACT score). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SL - Science Laboratory

CHE 135(1) Course ID: 017260
Introductory General and Biological Chemistry Laboratory
Reinforces concepts covered in CHE 130 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments pertaining to chemical and physical properties, quantitative analysis, qualitative analysis, and the reactions of organic and biomolecules. Pre-requisite or Co-requisite: CHE 130 concurrent enrollment OR CHE 130 with a grade of "C" or better. Laboratory: 1 credit hour (30 contact hours).

Components: Laboratory
Attributes: 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. Pre-requisite: Mathematics assessment exam scores with placement in College Algebra or higher OR successful completion of the required pre-requisite course(s) for College Algebra or Equivalent with a grade of "C" or better OR successful completion of MAT 116 or MAT 110 with a grade of "C" or better. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

CHE 145(1) Course ID: 000239
Introductory General Chemistry Laboratory
Reinforces concepts covered in CHE 140 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with chemical and physical properties, qualitative analysis, and quantitative analysis. Pre-requisite: Co-requisite: 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
Introduces topics in organic chemistry and biochemistry. Introduces basic laboratory techniques, methods, and instrumentation through selected experiments. Pre-requisite: CHE 140 with a grade of C or better. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

CHE 155(1) Course ID: 006173
Introduction to Organic and Biological Chemistry Laboratory
Reinforces concepts covered in CHE 150 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with the preparation, characterization, and purification of organic compounds and the reactions of biomolecules. Pre-requisite: CHE 140 and CHE 145. Pre-requisite or Co-requisite: 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. Pre-requisite: (Math ACT 19) OR (Intermediate Algebra with a grade of C or better). Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: Other

CHE 170(4) Course ID: 000225
General College Chemistry I
Focuses on major chemical topics, including stoichiometry, atomic structure, properties of matter and the relationship between molecular structure and chemical behavior. Emphasizes solving of mathematical problems which illustrate the principles of chemistry. Designed for students in the sciences, engineering, and pre-professional programs. Pre-requisite: (ACT math score of 22) OR (College Algebra or higher with "C" or better) OR (CHE 130 OR CHE 140 with a grade of "C" or better) OR (CHE 160 with a grade of "P" OR (Appropriate score on math or chemistry placement exam). Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: SN - Science, Course Also Offered in Modules

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. Pre-requisite or Co-requisite: CHE 170. Laboratory: 1 credit (45 contact hours, 45:1 ratio).

Components: Laboratory
Attributes: SL - Science Laboratory, SN - Science

CHE 180(4) Course ID: 000227
General College Chemistry II
Continues CHE 170. Focuses on major chemical topics, including acid-base chemistry, kinetic and thermodynamic principles, 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. Pre-requisite: (CHE 170 with a grade of "C" or better) and (College Algebra or higher with "C" or better). Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: SN - Science

CHE 185(1) Course ID: 000241
General College Chemistry Laboratory II
Reinforces concepts covered in CHE 180 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments. Emphasizes both quantitative and qualitative techniques. Pre-requisite: CHE 175 with a grade of C or better. Pre-requisite or Co-requisite: CHE 180. Laboratory: 1 credit (45 contact hours, 45:1 ratio).

Components: Laboratory
Attributes: SL - Science Laboratory

CHE 270(3) Course ID: 000230
Organic Chemistry I
Introduces common techniques used in the laboratory for purification, separation, identification, and reactions of organic compounds. Pre-requisite: CHE 185 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 the principles of organic chemistry. Emphasizes the synthesis of organic reactions, their mechanisms, and applications to synthesis. Pre-requisite: CHE 180 with a grade of C or better. Lecture: 2 credits (60 contact hours).

Components: Laboratory
Attributes: SN - Science Laboratory

CHE 280(3) Course ID: 000232
Organic Chemistry II
Explores further applications of the principles of organic chemistry. Continues the study of organic reactions, their mechanisms, synthesis and modern spectroscopic techniques. Pre-requisite: CHE 270 with a grade of C or better. Pre-requisite or Co-requisite: CHE 280. Lecture: 2 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: SN - Science Laboratory

CHE 285(2) Course ID: 000233
Organic Chemistry Laboratory II
Explores the synthesis, purification, and characterization of organic compounds in the laboratory. Pre-requisite: CHE 275 with a grade of C or better. Pre-requisite or Co-requisite: CHE 280. Lecture: 2 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: SN - Science Laboratory

CHE 290(1 - 3) Course ID: 006175
Instructor Consent Required
Selected Topics in Chemistry: (Topic)
Prepresents a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).

Components: Lecture

CHE 295(1 - 3) Course ID: 006176
Instructor Consent Required
Selected Topics in Chemistry Laboratory: (Topic)
Prepresents a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours).

Components: Laboratory

CHE 299(1 - 3) Course ID: 006177
Instructor Consent Required
Laboratory Research in Chemistry: (Topic)
May be repeated to a maximum of six credit hours. Pre-requisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours).

Components: Laboratory

CHE 1201(0.75) Course ID: 006126
Fundamentals
Continues non-science majors to the fundamentals and applications of chemistry in our society. Pre-requisite: Completion of one developmental math course above Pre-Algebra with a grade of "C" or better) OR (College level math ACT score) OR equivalent. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture
CHE 1202 (0.75) Course ID: 006127
Intro to Organic & Biochemistry
Introduces non-science majors to the fundamentals and applications of organic and biochemistry in society. Pre-requisite: 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. Pre-requisite: 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. Pre-requisites: CHE 1201, 1202, or 1203. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

CHW Community Health Worker

CHW 101(1) Course ID: 017382
Communication for Health Worker
Teaches effective and purposeful communication by listening carefully and communicating respectfully in ways that help build trust and rapport with clients, community members, colleagues and other professionals. Considers effective communication to include a mix of listening, speaking, gathering and sharing information, and resolving conflict. Explains the Community Healthcare Workers roles, responsibilities, and limits with regards to protecting client privacy and confidentiality. Lecture 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CHW 102(1) Course ID: 017383
Organizational and Community Outreach
Explores the use of a variety of outreach methods, such as phone calls, in-person conversations, group presentations, distribution of print and electronic information, and social media, and effectively written reports that will be sent to supervisors and patients as needed. Provides knowledge on effective outreach based on learning about community needs and strengths, knowledge about available resources, and sensitivity to personal and cultural dynamics that affect behavior and relationships. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CHW 103(1) Course ID: 017384
Advocacy
Teaches advocacy and capacity building that can help create conditions and build relationships that lead to better health. Explores capacity building requirements such as planning, cooperation, and commitment. Examines working to change public awareness, organizational rules, institutional practices, or public policy. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CHW 104(1) Course ID: 017385
Health Coaching
Teaches education for healthy behavior change including providing people with information, tools, and encouragement to help them improve their health and stay healthy over time. Explores working with clients, family or community members, and with providers to address issues that may limit opportunities for healthy behavior. Examines the Community Healthcare Workers role as educator and coach, using a variety of techniques to motivate and support behavior change to improve health. Lab: 1 credit hour (30 contact hours).
Components: Laboratory

CHW 105(1) Course ID: 017386
Organization for Community Health Worker
Teaches how to promote coordinated and effective services by documenting their work activities, including writing summaries of client and community assessments. Examines presenting information to agency colleagues or community partners about their clients and issues they face. Explores the use of computer technology and communication in English. Discusses alternative language arrangements utilizing valuable linguistic capacities, cultural experience, and community relationship. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CHW 106(1) Course ID: 017387
Legal and Ethics for Community Health Worker
Teaches how to handle ethical challenges as Community Healthcare Workers address legal and social challenges facing the clients and the communities they serve. Discusses client confidentiality and privacy rights in the context of employer and legal reporting requirements. Explores balancing care for clients with care for self. Examines following agency rules and the regulations governing public and private resources while exercising creativity in helping community members meet their individual and family needs. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CIT Computer Information Systems

CIS 2301(0.9) Course ID: 005848
Word Processing Level 3
Uses advanced functions of word processing. Includes working with complex documents and creating and preparing data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1301) or consent of instructor. Lecture: 0.9 credit (13.5 contact hours).
Components: Lecture

CIS 2302(0.9) Course ID: 005849
Spreadsheets Level 3
Uses advanced functions of spreadsheets. Includes working with complex spreadsheets and the creation and preparation of data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1302) or consent of instructor. Lecture: 0.9 credits (13.5 contact hours).
Components: Lecture

CIS 2303(0.9) Course ID: 005850
Databases Level 3
Uses advanced functions of databases. Includes working with complex databases and the creation and preparation of data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1303) or consent of instructor. Lecture: 0.9 credit (13.5 contact hours).
Components: Lecture

CIT 105(3) 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. Pre-requisite: RDG 20 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Digital Literacy, Course Also Offered in Modules

CIT 111(4) Course ID: 006189
Computer Hardware and Software
Presents a practical view of computer hardware and client operating systems. Covers computer hardware components; troubleshooting, repair, and maintenance; operating system interfaces and management tools; networking components; computer security; and operational procedures. Pre-requisite: (CIT 105 AND MAT 065) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 120(3) Course ID: 004712
Computational Thinking
Promotes understanding of computer programming and logic by teaching students to think like a computer. Covers skills needed to develop and design language-independent solutions to solve computer-related problems. Covers development and design basics including use of variables, control and data structures, and principles of command-line and object-oriented languages. Pre-requisite or Co-requisite: MAT 085 or (MAT 128 or higher) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 124(3) Course ID: 016259
Introduction to Game Development
Presents an overview of the game development process including game development history, platforms, goals, genres, players, story and character development, gameplay, levels, interfaces, audio, development processes, development team roles, marketing, and maintenance. Offers students the opportunity to play and analyze games facilitating discussion on game design and function. Completion of partial game design will occur. Pre-requisite: CIT105 OR IM100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Equivalents: IM1 124

CIT 125(3) Course ID: 006901
Intro to Digital Maps
Provides basic theories and concepts of geographical information systems including basic GIS capabilities, data analysis, data types, coordinate systems, cartography and mapping concepts. Introduces GIS software using industry-specific applications and technology to provide a conceptual base to build expertise in GIS. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 130(3) Course ID: 004713
Productivity Software
Utilizes current word processing, spreadsheet, database, and presentation application software to solve common business problems. Covers basic features of each software application. Pre-requisite: CIT 105 OR OST 105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 140(3) Course ID: 004714
JavaScript I
JavaScript I provides students with an overview of 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. Pre-requisite: CIT 120 AND (CIT 150 or CIT 155) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
CIT 141(3) Course ID:005037 PHP I
Explores the fundamentals of PHP, with emphasis on syntax, structure, and current usage. Includes dynamic generation of web pages, fluid forms, and web security. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 142(3) Course ID:006502 C++ I
Introduces students to fundamental programming concepts using the C++ programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, and information and file processing. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 143(3) Course ID:006247 C# I
Introduces students to fundamental programming concepts using the C# programming language. Includes data types, control structures, simple data structures, error-handling, object-oriented programming, graphical user interfaces, and modular programming. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 145(3) Course ID:006190 Python I
Introduces students to fundamental programming concepts using the Python programming language. Includes data types, control structures, simple data structures, error-handling, object-oriented programming, graphical user interfaces and file processing. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 146(3) Course ID:017009 Swift I
Introduces students to fundamental programming concepts using the Swift programming language. Includes data types, data structures, error-handling, event driven programming, and using Xcode. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 147(3) Programming I: Language Course ID:006003
Introduces students to fundamental programming concepts using an industry-specific or emerging programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, information and file processing, and uniqueness of the language used in the course. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 148(3) Course ID:004716 Visual Basic I
Introduces students to fundamental programming concepts using the Visual Basic programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, event-driven programming, graphical user interfaces, and file processing. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 149(3) Java I Course ID:004717
Introduces students to fundamental programming concepts using the Java programming language. Includes data types, control structures, simple data structures, error-handling, object-oriented programming, graphical user interfaces, and modular programming. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 150(3) Internet Technologies Course ID:004718
Provides students with a study of traditional and emerging Internet technologies. Covers topics including Internet fundamentals, Internet applications, Internet delivery systems, and Internet client/server computing. Provides a hands-on experience and some rudimentary programming in an Internet environment. Pre-requisite: CIT 105 OR Consent of Instructor. Pre-requisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 152(3) Social Media Tools and Technologies Course ID:007391
Introduces students to web-based social media tools. Explores and researches online applications, social networks, and web branding. Develops skills to leverage social media applications and niche markets to increase business presence. Pre-requisite: CIT 150 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Laboratory
Attributes: Technical

CIT 155(3) Web Page Development Course ID:006504
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 development and accessibility standards. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 157(3) Web Site Design and Production Course ID:006505
Introduces web site production processes with particular emphasis on design involving layout, navigation, interactivity, and using web production software. Pre-requisite: CIT 150 OR Consent of Instructor. Lab/Lecture: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

CIT 160(4) Intro to Networking Concepts Course ID:004719
Introduces technical level concepts of non-vendor specific networking including technologies, media, topologies, devices, management tools, and security. Provides the basics of how to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure. Pre-requisite: MAT 65 OR Consent of Instructor. Pre-requisite or Co-requisite: CIT 111 OR Consent of Instructor Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 161(4) Course ID:006506
Introduction to Networks
Introduces the architecture, structure, functions, components, and protocols of the Internet and other computer networks. Introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Helps students to be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Pre-requisite: MT 065 OR Consent of Instructor. Pre-requisite or Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 167(4) Routing & Switching Essentials Course ID:015644
Covers the architecture, components, and operations of routers and switches in a small network. Helps students learn how to configure a router and a switch for basic functionality. Helps students configure and troubleshoot routers and switches as well as monitor and resolve common issues including access control lists (ACLs), DHCP, NAT, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Pre-requisite: CIT 161 or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 167A(1) Intro to Routing Course ID:017007
Introduces the architecture, components, and operations of routers in a small network. Helps students learn how to configure a router for basic functionality including RIPv2, static and default routing. Pre-requisite: CIT 161 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CIT 167B(1) Intro to Switching & VLANS Course ID:017010
Introduces students to switching and VLANs for a small network. Helps students learn how to configure a switch with VLANs for basic functionality. Pre-requisite: CIT 167A OR Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CIT 167C(1) Standard ACLs and DHCP Course ID:017011
Introduces students to standard access control lists (ACL) and DHCP in a small network. Pre-requisite: CIT 167B OR Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CIT 167D(1) Network Monitoring and NAT Course ID:017012
Covers network management, monitoring as well as the configuration and troubleshooting of Network Address Translation (NAT) in a small network. Pre-requisite: CIT 161C OR Consent of Instructor. Lecture: 1 credit (15 hours).
Components: Lecture
Attributes: Technical

CIT 170(3) Database Design Fundamentals Course ID:004720
Provides an overview of database and database management system concepts, internal design models, normalization, network data models, development tools, and applications. Pre-requisite: (CIT 105 OR CST 105 OR MTH 100) AND (MAT 085 OR MAT 126) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 171(3) Course ID:004721 SQL I
Provides students with an extensive introduction to database manipulation techniques. Introduces students to SQL; will create and maintain database objects; and store, retrieve, and manipulate data using SQL. Pre-requisite: (CIT 120 and CIT 170) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 180(3) Security Fundamentals Course ID:006191
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. Helps to prepare students for the COMPTIA Security+ examination. Pre-requisite: (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
CIT 182(3)  Course ID:006911
Perimeter Defense
Presents information and skills required to secure computers and networks from attacks with an emphasis on configuration of firewalls and intrusion-detection systems. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 184(3)  Course ID:006912
Attacks and Exploits
Provides knowledge and skills necessary to understand a variety of attacks and exploits against computers and networks. Teaches effective defensive techniques against real attacks. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 201(3)  Course ID:007295
Information Storage Management
Introduces the fundamentals of the services available in Amazon Web Services (AWS). Teaches an overall understanding of AWS Cloud, independent of specific technical roles. Uses a hands-on approach to solution development using actual AWS cloud services. Provides a detailed overview of cloud concepts, AWS services, security, architecture, pricing, and support. Prepares students for the AWS Certified Cloud Practitioner exam. Pre-requisites: CIT 170 AND (CIT 161 OR CIT 160) or consent of the instructor. Integrated Lecture/Lab 3.0 credits (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

CIT 207(3)  Course ID:017141
Amazon Web Services Architecting
Covers building IT infrastructure on Amazon Web Services (AWS). Teaches how to optimize use of the AWS platform by understanding AWS services and how those services fit into cloud-based solutions. Teaches how to develop and maintain a well-architected AWS cloud solution. Covers cloud solution reliability, efficiency, and cost-optimization strategies. Emphasizes best practices for the AWS cloud including the process of architecting optimal solutions. Offers a hands-on approach to solution development using actual AWS cloud services. Pre-requisites: CIT 206 AND CIT 167, or consent of instructor. Integrated Lecture/Lab: 3 credits (50 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

CIT 208(4)  Course ID:007296
Introduction to Virtualization
Provides an introduction to virtualization technologies including the architecture, its applications, and best practices. Utilizes VMware ESXi servers and VMware vCenter servers for creation and management of virtual machines, virtual switches and storage architectures including distributed resource scheduling, high availability, and fault tolerance. Provides examples for the vSphere Foundations exam and the VMware Certified Associate Data Center Virtualization (VCA-DCV). Pre-requisite: [CIT 167 AND (CIT 214 OR CIT 217)] OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

CIT 209(4)  Course ID:015645
Scaling Networks
Covers the architecture, components, and operations of routers and switches in a larger and more complex network. Helps students learn how to configure routers and switches for advanced functionality. Helps students to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Helps students to develop the knowledge and skills needed to implement DHCP and DNS operations in a network. Pre-requisite: CIT 167 or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 209A(1)  Course ID:017013
Advanced Campus LANs
Covers the architecture, components, and operations of the campus wired LAN design. Includes configuring, verifying and troubleshooting multi switch VLANs using VTP and DTP. Pre-requisite: CIT 167 OR Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

CIT 209B(1)  Course ID:017014
Spanning Tree & EtherChannel
Covers the architecture, components, and operations of routers and switches in a larger and more complex network. Helps students learn how to configure and troubleshoot router and switches for advanced functionality including configuring and troubleshooting routers and switches and resolving common issues with STP protocols and link aggregation protocols. Pre-requisite: CIT 209A OR Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

CIT 209D(1)  Course ID:017016
Intro to OSPF
Covers the architecture, components, and operations of routers and switches in a larger and more complex network. Helps students learn how to configure and troubleshoot router and switches for advanced functionality including configuring and troubleshooting routers and switches and resolving common issues with single and multi-area OSPF in both IPv4 and IPv6 networks. Pre-requisite: CIT 209C OR Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

CIT 212(4)  Course ID:004723
Branch Connections and ACLS
Enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Helps students learn how to configure and troubleshoot network devices and resolve common issues with branch connections and Access Control Lists. Pre-requisite: CIT 209A OR Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

CIT 212C(1)  Course ID:017019
Network Monitoring and QoS
Enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Helps students learn how to configure and troubleshoot network devices and resolve common issues with branch connections and Access Control Lists. Pre-requisite: CIT 209A OR Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

CIT 213(3)  Course ID:006912
Microsoft Client Configuration
Covers Windows client operating systems. Helps prepare students for exams in the Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 214(3)  Course ID:006914
Microsoft Server Configuration
Provides students with the knowledge and skills to install, configure and administer a network server infrastructure including DNS, DHCP, Hyper-V, including the design and implementation of an Active Directory environment. Covers how to implement and configure secure network access, implement fault tolerant storage technologies, enable network technologies most commonly used with Windows Servers and IP-enabled networks, configure an Active Directory environment, and work with virtual drives and devices. Assists in preparing students for various Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
CIT 215(3) Course ID:015661 Microsoft Server Administration
Covers the skills needed to maintain and administer a Windows Server 2012 environment, including user and group management, network access, and data security at an intermediate level. Helps prepare students to implement a core Windows Server infrastructure in an enterprise environment (second in a series of three courses). Pre-requisite: CIT 214 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 216(3) Course ID:015648 Microsoft Server Advanced Services
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server environment, including fault tolerance, certificate services, and identity federation. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment (third in a series of three courses). Pre-requisite: CIT 214 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 217(3) Course ID:004724 UNIX/Linux Administration
Developed in 1969, the UNIX/Linux 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. Pre-requisite: [CIT 111 AND (CIT 160 OR CIT 161)] OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

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 administration environment. Pre-requisite: CIT 217 OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

CIT 219(3) Course ID:006915 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 161) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

CIT 221(3) Course ID:006916 Computer Graphics
Introduces basic computer graphics with an emphasis on graphics for game design. Instructs students in practical aspects of graphics such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Pre-requisite: CIT105 OR IMD100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 222(3) Course ID:016260 3D Modeling for Video Games
Introduces students in the use of industry-standard 3D modeling software specific to the video-game industry. Emphasizes both architectural and character modeling. Familiarizes the student with key 3D modeling concepts and methods, workflow, and the creation and preparation of 3D assets for use specifically in a video-game application. Allows students to create a variety of 3D assets. Pre-requisite: CIT/IMD 221 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 223(3) Course ID:006917 3D Animation for Video Games
Exposes students to the specialized process of animating 3D assets for gaming applications. Familiarizes students with animating both organic and inorganic assets, lighting scenes, rendering and producing cut-scenes, and preparing character assets for in-game motion. Allows students to acquire the necessary skills and techniques to integrate audio with their animations using basic sound-engineering software and processes. Pre-requisite: CIT/IMD 124 AND CIT/IMD 222 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 225(3) Course ID:006918 GIS Data Analysis
Explores Geographical Information System extensions. Introduces and identifies popular advanced extensions used for image analysis, spatial analysis, and 3D analysis. Collection and analysis of field data utilizing GPS devices and data collection applications. Pre-requisite: CIT 125 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 229(3) Course ID:006919 Select 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 Attributes: Technical

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. Pre-requisite: CIT 111 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

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. Pre-requisite: CIT 130 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

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. Pre-requisite: CIT 130 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 237(3) Course ID:017021 IOS Programming
Introduces students to fundamental IOS mobile application development concepts. Prepares students to design, code, test, and publish IOS mobile applications for IOS platforms. Pre-requisite: CIT 148 OR Consent of Instructor. Lecture: 3 credit hours (45 contact hours).

Components: Lecture Attributes: Technical

CIT 238(3) Course ID:016862 Android Programming I
Introduces students to fundamental Android mobile application development concepts. Prepares students to design, code, test, and publish Android mobile applications for a variety of mobile device platforms. Includes secure coding learning modules for Java and Android. Pre-requisite: CIT 149 OR INF 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

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 Attributes: Technical

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 Attributes: Technical

CIT 244(3) Course ID:015649 Python II
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Python programming language. Includes graphical user interfaces, event-driven programming, modular programming, advanced object-oriented programming, advanced data types and structures, concurrency, file and data base processing, mobile computing, and other advanced topics. Pre-requisite: CIT 143 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

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 Attributes: Technical

CIT 248(3) Course ID:004729 Visual Basic II
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes graphical user interfaces, event-driven programming, modular programming, object-oriented programming, advanced data types and structures, input validation, error-handling, database processing, and client/server programming. Pre-requisite: CIT 144 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 249(3) Course ID:004728
CIT 249(3) Course ID:005208
Java II
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes input and output streams (file processing), polymorphism, inheritance, multithreading, recursion, and other advanced topics. Pre-requisite: CIT 149 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Same As Offering: CIT 249
Attributes: Technical

CIT 254(3) Course ID:005208
Java II
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes input and output streams (file processing), polymorphism, inheritance, multithreading, recursion, and other advanced topics. Pre-requisite: CIT 149 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Same As Offering: CIT 249
Attributes: Technical

CIT 251(3) Course ID:007392
Social Media II
Provides students with skills, knowledge, and experience to respond to the challenges of a rapidly changing 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 of utilization of web and social media technologies and practices. Pre-requisite: CIT 151 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 253(3) Course ID:005039
Data Driven Web Pages: (Topic)
Provides students with the knowledge and skills to design, implement, and manage a database-driven web site. Includes the study of databases and web servers in e-commerce, transaction processing, and client-side and server-side Web scripting. Includes the creation of a database-driven Web site. Pre-requisite: (CIT 150 AND CIT 155 OR CIT 157) AND CIT 170 AND Approved Level I Programming Language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 255(3) Course ID:005104
Web Server Administration
Provides an in-depth study of the functions required to run a safe and stable web server. Considers multiple web services on multiple platforms from installation to configuration, availability, and security. Requires hands-on experiences with web services. Pre-requisite: [CIT 150 OR CIT 155 OR CIT 157] AND (CIT 214 OR CIT 216) AND CIT 219) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 257(3) Course ID:006825
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 aid student employment within the Web Programming field. Pre-requisite or Co-requisite: CIT 253 or Co-Requisite of CIT 255 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 258(3) Course ID:005211
Internet Technologies Seminar
Incorporates research, study, and discussion of current and emerging topics, issues, and trends in Internet technologies. Requires participation in class presentations, as well as individual and/or group projects involving Internet technologies. Pre-requisite or Co-requisite: CIT 253 or Co-Requisite of CIT 255 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 260(3) Course ID:004730
Network Hardware Installation and Troubleshooting
Provides students with the knowledge and skills necessary to design, install, configure, and troubleshoot cabling systems and equipment used to connect a local area network. Pre-requisite: CIT 160 OR CIT 161 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 tools required to centrally manage users and computers. Assists in preparing students for exams in the Microsoft certification exam series. Prerequisite: CIT 111 AND (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 262(3) Course ID:005210
MS Network 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 preparing students for exams in the Microsoft certification exam series. Prerequisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

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. Pre-requisite: CIT 213 or consent of instructor. Lecture: 1.0 credits (15-90 contact hours).

Components: Lecture
Attributes: Technical

CIT 264(3) Course ID:006194
Microsoft Server Management
Focuses on the concepts and skills required to manage and maintain Microsoft Windows Servers. Topics include configuration and management of storage solutions, deployment images, Hyper-V implementations, and Windows containers. Pre-requisite: CIT 262 OR Consent of Instructor. Lecture: 3 credit hours (45 contact hours).

Components: Lecture
Attributes: Technical

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. Pre-requisite: CIT 213 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

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. Pre-requisite: CIT 171 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 272(3) Course ID:016261
Game Design Theory
Introduces students to the experience-oriented standards and techniques of gaming on a digital platform. Includes hands-on conceptualization and writing of a game created by the student. Emphasizes creativity, player experiences and motivations, styles of play, types of games, character creation, world creation, and story-driven narrative within a video game. Offers students the opportunity to complete an industry-quality Game Design Document. Pre-requisite: CIT/IMD 124 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 273(3) Course ID:016262
Game Production
Provides students with the opportunity to produce a fully playable 3D video game using assets and materials created in previous courses. Offers students the opportunity to employ an industry-standard game engine to meld 3D content, audio, narrative, character, and environment into a professional and enjoyable video game experience. Pre-requisite: CIT/IMD 224 AND CIT/IMD 223 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Equivalents: IMD 273

CIT 274(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
Attributes: Technical

CIT 277(3) Course ID:006628
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. Pre-requisite: CIT 248 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 284(3) Course ID:006829
Computer Forensics
Provides basic knowledge on methods and processes for computer forensics, intrusion detection, evidence collection, disk imaging, and report writing. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

253
CIT 285(3) Course ID:006930
MS Windows OS Security
Provides students the knowledge and skills necessary to secure the Windows operating system. Pre-requisite: CIT 180 AND CIT 214 OR CIT 262 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 286(3) Course ID:006931
UNIX/Linux OS Security
Provides students the knowledge and skills necessary to secure the UNIX/Linux operating system and to utilize the UNIX/Linux operating system for security functions. Emphasizes use of freely available security tools. Pre-requisite: (CIT 180 AND CIT 217) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 287(3) Course ID:006932
Cisco OS Security
Provides students with comprehensive understanding of network security concepts. Includes installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Covers implementation of hosts and perimeter edge device firewalls and defense in-depth prevention systems. Pre-requisite: CIT 167 OR CIT 212 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 290(3) Course ID:004733
Instructor Consent Required
Internship
Provides on-the-job experience in computer and information technologies, requiring a minimum of 120 clock hours of appropriate experience approved by the faculty member (40 clock hours per credit); requires a learning contract, signed by the student, faculty member, and supervisor. Core Course is offered on pass-fail basis only. Pre-requisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

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. Pre-requisite: 36 credit hours of CIT Courses OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 293(1) Course ID:017008
CIT Employability Studies
Creates an error-free portfolio of employment documents, using computer technology to assist with composition, proofreading, and formatting. Demonstrate proper interviewing skills through mock interviews. Complete a Career Path Employability Assessment. Pre-requisite: If yes, list: (Sophomore Standing, and CIT Program Students only) or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CIT 295(1 - 3) Course ID:004741
Independent Problems in CIT: Topic
Explores concepts and/or skills from special areas of interest in Computer & Information Technologies. Topics vary from semester to semester. May be repeated up to two times with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).
Components: Lecture
Attributes: Technical

CIT 299(1 - 3) Course ID:004742
Special Topics in CIT: (Topic)
Explores concepts and/or skills from special areas of interest in computer and information systems. May be repeated with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

CIT 1051(0.5) Course ID:006972
Computer Basics
Provides an introduction to the computer and the convergence of technology including computer hardware and software, the social web, green computing, security and computer ethics. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

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
Provides basic use of application and programming software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1111(0.8) Course ID:007091
Computer Hardware Essentials
Provides a practical view of hardware components. Pre-requisite: (CIT 105 AND MAT 065) OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1112(0.8) Course ID:007092
Computer Maintenance
Provides a practical view of troubleshooting, repair, and maintenance. Pre-requisite: CIT 1111 or Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1113(1) Course ID:007093
Operating Systems and Tools
Provides a practical view of operating system interfaces and management tools. Pre-requisite: CIT 1112 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1114(0.8) Course ID:007094
Networking and Security
Provides a practical view of networking components and computer security. Pre-requisite: CIT 1113 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1115(0.6) Course ID:007095
Operational Procedures
Provides a practical view of operational procedures. Pre-requisite: CIT 1114 OR Consent of Instructor. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture

CIT 1201(1) Course ID:006977
Basic Program Logic
Presents an introduction to computer programming and logic including program flow, data types and variables, and design tools. Pre-requisite: Digital Literacy AND MAT 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 1251(1) Course ID:016856
Intro to Projection
Projections, coordinate systems and basic mapping software utilization are introduced. Pre-requisite: CIT 105 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1252(1) Course ID:016857
Intro to Publishing Maps
Displaying data and publishing of information are explored. Pre-requisite: CIT 1251 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1253(1) Course ID:016858
Intro to Geospatial Data
Data analysis, remote sensing and database manipulation. Pre-requisite: CIT 1252 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1301(0.8) Course ID:006980
Word Processing Applications
Utilizes word processing application software to solve common business problems. Pre-requisite: CIT 105 OR DST 105 OR IMD 100 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1302(0.8) Course ID:006981
Spreadsheet Applications
Utilizes spreadsheet application software to solve common business problems. Pre-requisite: Computer Literacy OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1303(0.8) Course ID:006982
Database Applications
Utilizes database application software to solve common business problems. Pre-requisite: Computer Literacy OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1304(0.6) Course ID:006983
Presentation Software Apps
Utilizes current presentation software application software to solve common business problems. Pre-requisite: Computer Literacy OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
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<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
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CIT 1824(0.8) Intrusion Detection
Course ID: 007024
Pre-requisite: CIT 2091 or Consent of Instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture
Presents concepts about computer and network security threats. Pre-requisite: CIT 2091 or Consent of Instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture
CIT 1824(1.2) Course ID: 007025
Network Administration
Pre-requisite: CIT 1824 OR Consent of Instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture
CIT 1841(0.8) Ethical Hacking Concepts
Course ID: 007027
Pre-requisite: CIT 180 or consent of instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
CIT 1844(0.4) Course ID: 007028
Incident Handling
Pre-requisite: CIT 1843 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture
CIT 2091(1) Advanced Switching
Course ID: 016595
Components: Lecture
CIT 2092(1) Single- and Multi-area OSPF
Course ID: 016596
Components: Lecture
CIT 2093(1) EIGRP
Course ID: 016597
Components: Lecture
CIT 2094(1) LAN/Wireless Design & IOS
Course ID: 016598
Components: Lecture
CIT 2121(1.2) Course ID: 016722
WANs, PPP, and Frame Relay
Pre-requisite: CIT 2093 or Consent of Instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture
CIT 2121(2) Course ID: 016723
Configuring Connections
Covers configuration and troubleshooting of common networking operations including Dynamic Host Configuration Protocol (DHCP) and Network Address Translation (NAT). Explains network monitoring, troubleshooting tools, and strategies to resolve common network issues. Pre-requisite: CIT 2091 or Consent of Instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture
CIT 2123(1) Securing Network Access
Course ID: 016724
Covers network security tools including Access Control Lists (ACL) and Virtual Private Networks (VPN) in a complex network. Enables students to successfully configure network devices to implement security on networks. Pre-requisite: CIT 2092 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
CIT 2124(0.6) Network Design
Course ID: 016725
Covers 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 2131(0.6) Windows OS Installation & Setup
Course ID: 007029
Provides concepts and skills for installation, setup, and management of the current Microsoft Windows operating system. Pre-requisite: CIT 2131 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
CIT 2132(0.6) Network Connectivity
Course ID: 007030
Presents an overview of network concepts such as DNS, IP addressing and subnetting. Provides concepts and skills for configuring IP addressing and subnetting. Pre-requisite: CIT 2132 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
CIT 2133(0.6) Windows OS Resources
Course ID: 007031
Presents concepts and skills for managing user accounts and access to resources in the current Microsoft Windows operating system environment. Pre-requisite: CIT 2133 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
CIT 2134(0.6) Mobility Configurations
Course ID: 007032
Presents concepts and skills for managing mobility options and security in the current Microsoft Windows operating system environment. Pre-requisite: CIT 2134 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
CIT 2135(0.6) Monitoring Windows Systems
Course ID: 007033
Presents concepts and skills for managing updates and local performance, monitoring system performance and resource usage, configuring backups, system recovery, and troubleshooting the boot process in the current Microsoft Windows operating system environment. Pre-requisite: CIT 2135 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
CIT 2141(1) OS Server Concepts
Course ID: 007096
Presents an overview of network concepts such as TCP/IP addressing and subnetting. Provides concepts and skills to install and setup Windows Server. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2141 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
CIT 2142(1) Server Role Policy
Course ID: 007097
Presents concepts and skills to configure and manage server role policy and security compliance. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2142 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
CIT 2151(0.75) Initial Server Deployment
Course ID: 016337
Pre-requisite: CIT 2151 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
CIT 2152(0.75) Administering the Server
Course ID: 016338
Covers concepts and skills for managing mobility options and security in the current Microsoft Windows operating system environment. Pre-requisite: CIT 2152 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
CIT 2153(0.75) Administering the Domain
Course ID: 016339
Covers concepts and skills for managing mobility options and security in the current Microsoft Windows operating system environment. Pre-requisite: CIT 2153 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
CIT 2154(0.75) Advanced Administration Topics
Course ID: 016340
Pre-requisite: CIT 2154 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
CIT 2161(1) Advanced Active Directory
Course ID: 016610
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server 2012 environment, including advanced network and file services. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment. Pre-requisite: CIT 2161 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
CIT 2162(1) Server High Availability
Course ID: 016611
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server 2012 infrastructure in an enterprise environment. Pre-requisite: CIT 2161 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
CIT 2163(1)  Course ID:016612  
Disaster Recovery & A&D Services
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server environment, including disaster recovery, certificate services, and identity federation. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment. Pre-requisite: CIT 2162 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 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 2251(1)  Course ID:016859
Spatial Analysis
Georeferencing and digitization will be mastered. Pre-requisite: CIT 125 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2252(1)  Course ID:016860
3D Spatial Analysis
Creation of three dimensional surfaces from digital elevation models. Pre-requisite: CIT 2251 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2253(1)  Course ID:016861
Field Data
Collection of field data and the analysis of the collected data. Pre-requisite: CIT 2252 or Consent of Instructor. Pre-requisite: CIT 2252 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2321(1)  Course ID:016341
Help Desk & Customer Service
Explores help desk concepts and customer service skills. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 2322(1)  Course ID:016342
Help Desk Tools & Techniques
Introduces a variety of tools and techniques to provide user support in help desk operations. Explores troubleshooting problems, help desk operations and software, needs analysis, and facilities management. Pre-requisite: CIT 2321. Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 2323(1)  Course ID:016343
End User Support
Explores writing for end users and training end users and topics related to end user support. Pre-requisite: CIT 2322. Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 2341(1)  Course ID:016613
Advanced Word Processing
Uses advanced functions of word processing. Includes working with complex documents creating and preparing data distribution on the web. Pre-requisite: CIT 2341. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 2342(1)  Course ID:016614
Advanced Presentation Software
Uses advanced functions of presentation software. Includes working with complex documents creating and preparing data distribution on the web. Pre-requisite: CIT 2341. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 2343(0.75)  Course ID:016615
Advanced Digital Communication
Uses advanced functions of electronic communications software. Includes working with complex documents creating and preparing data distribution on the web. Lecture: 0.75 credits (11 contact hours).

Components: Lecture

CIT 2344(0.25)  Course ID:016616
Software Options
Explore alternative software options. Includes using alternative office suites and collaboration between software packages. Pre-requisite: CIT 2343. Lecture: 0.25 credits (4 contact hours).

Components: Lecture

CIT 2361(1)  Course ID:016617
Reports, Forms, & Macros
Uses advanced database techniques used in forms, reports, macros, and data integration, for the preparation of data distribution on the web. Pre-requisite: CIT 130 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2362(1)  Course ID:016618
Database Queries and Tables
Uses advanced database techniques used in data integration, pivot tables and charts, and queries, for the preparation of data distribution on the web. Pre-requisite: CIT 2361. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2363(1)  Course ID:016619
Advanced Database Techniques
Uses advanced database techniques used in spreadsheet layout and design, data manipulation and management, and VBA applications with Active X, for the preparation of data distribution on the web. Pre-requisite: CIT 2362. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2481(1)  Course ID:016620
Advanced Application Design
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes graphical user interfaces, event-driven programming, and modular programming. Pre-requisite: CIT 148 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2482(1)  Course ID:016621
Programming & Code Apps
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes object-oriented programming and advanced data types and structures. Pre-requisite: CIT 2481 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2483(1)  Course ID:016622
Validation and Processing
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes input validation, error-handling, and file and database processing. Pre-requisite: CIT 2482 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 2492(1)  Course ID:016624
Java Type Theory and Classes
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes polymorphism, inheritance, and recursion. Pre-requisite: CIT 2491 or Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 2493(1)  Course ID:016625
Mobile Apps & Adv. Functions
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes mobile computing and other advanced topics. Pre-requisite: CIT 2492 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 2511(1)  Course ID:017215
Social Media Awareness
Provides students with skills, knowledge, and experience with social media awareness. Examines exposure, influence, engagement, brand awareness, metrics, and the crowded room concept. Examines customer services. Pre-requisite: CIT 151 or Consent of Instructor. Lecture: 1 credit hour (15 contact hours).

Components: Lecture

CIT 2512(1)  Course ID:017216
Social Media Measurements
Provides students with skills, knowledge, and experience with social media measurements. Examines media leads, types of leads, strategy, content, niche markets, scoring leads, and web analytics. Examines measurement technologies. Pre-requisite: CIT 2511 or Consent of Instructor. Lecture: 1 credit hour (15 contact hours).

Components: Lecture

CIT 2531(1)  Course ID:016344
Web Servers and Applications
Provides students with the knowledge and skills to design and develop client-side and server-side applications for data driven web sites. Includes development of skills related to the installation and configuration of web servers. Pre-requisite: (CIT 150 AND CIT 170 AND Approved Level I Programming Language) OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2532(1)  Course ID:016345
Databases and E-Commerce
Includes the study of databases and web servers in e-commerce, transaction processing, and web scripting. Emphasizes designing and developing a functional e-commerce supporting database for a dynamic web site. Pre-requisite: CIT 2531. Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 2533(1)  Course ID:016346
Integrated Web Databases
Provides students with the knowledge and skills to design, develop, and evaluate an integrated web database application. Includes the creation of a functional database driven web site. Pre-requisite: CIT 2532. Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 261(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 213 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).

Components: Lecture
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Attributes</th>
<th>Credits</th>
<th>Contact Hours</th>
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<td>CMM 110(3)</td>
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<td>CMM 112(3)</td>
<td>Fundamentals of Machine Tools - B</td>
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<td>CMM 118(2)</td>
<td>Metrology/Control Charts</td>
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<td>CMM 120(3)</td>
<td>Applied Machining I</td>
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<td>CMM 122(3)</td>
<td>Applied Machining II</td>
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CMM 124(6) Course ID: 001818
Applied Machining
Allows the student to begin performing skills that will combine the use of different types of machine and begin to give them a complete picture of the machine tool career. Pre-requisite: (CMM 110 and CMM 112) or (CMM 114) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (165 contact hours).
Components: Lecture
Attributes: Technical

CMM 130(3) Course ID: 001819
Manual Programming
Introduces the student to CNC codes and programming, setup and operation of CNC machine tools. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 132(3) Course ID: 001820
CAD/CAM/CNC
Introduces the student to CAD/CAM/CNC systems which includes CAM software. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 134(4) Course ID: 001821
Manual Programming CAD/CAM/CNC
Introduces the student to CAD/CAM/CNC systems, CNC format, the Cartesian Coordinate System, CNC codes and programming, setup and operation of CNC machine tool. Pre-requisite: (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
Attributes: Technical

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 waterjet. Pre-requisite: (CMM 110 and CMM 112) or (CMM 114) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours) (30:1 Ratio Lab).
Components: Lecture
Attributes: Technical

CMM 150(2) Course ID: 005089
Shop Theory
Covers shop theory, processes, and basic concepts of machine tool applications utilized in the tool and die field. Includes areas and machine concepts: safety, measurement, layout work, bench work, saws, drills, drilling machines, mills and lathes. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

CMM 151(3) Course ID: 005090
Machinery's Handbook and Metallurgy
Introduces the Machinery's Handbook as a reference source for solving manufacturing problems and provides a working knowledge of the principles and concepts contained in the Handbook. Explores processes involved in heat-treating steels to a specific hardness, toughness, wear capability. Covers the identification, classification, application, and processing of Tool Steels. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CMM 152(3) Course ID: 005091
Jigs, Fixtures and Gaging
Introduces jigs, fixtures and work holding devices, including separate uses and principles. Applies machining processes to design jigs and fixtures. Uses print knowledge to identify part datums for gaging points. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CMM 153(3) Course ID: 005092
Mold Theory
Presents mold-making including thermoplastic and thermostetting 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
Attributes: Technical

CMM 154(3) Course ID: 005093
Die Theory
Presents basic die making including die sets, punch press, upsetting dies, piercing dies, screw and dovetail holes, punch and punch blocks, die life, bending dies, pilots, die block construction, stock strippers, stock guides, progressive dies, stock strips and secondary operations of notch, trim, and shave. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CMM 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. Pre-requisite: (CMM 122 or 124) with a grade of C or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 212(3) Course ID: 001823
Industrial Machining II
Permits the student to receive instruction in any area where advanced work is needed or an area where there is student interest. Pre-requisite: (CMM 210 with a grade of C or greater) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

CMM 214(6) Course ID: 001824
Industrial Machining
Covers the classification of metals, identification of tool steels and their applications. Requires the student to perform advanced milling machine operations that simulate industry standards. Includes special projects in this course so the student will receive instruction in a specific area. Pre-requisite: (CMM 122 or CMM 124) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credit (165 contact hours).
Components: Laboratory
Attributes: Technical

CMM 218(8) Course ID: 005530
Advanced Machining Techniques for Manufacturing
Allows for construction of electrodes and the production of parts by the use of an Electric Discharge Machine, 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. Pre-requisite: (CMM 212 or CMM 214 with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CMM 220(4) Course ID: 001825
Advanced Industrial Machining I
Allows for construction of electrodes and the production of parts by the use of an Electrical Discharge machine. (National Standards require EDM and cylindrical grinder training. Colleges lacking this equipment can only present theory only. KCTCS is presently trying to acquire EDM and cylindrical grinders.) Pre-requisite: ((CMM 130 and CMM 132) or (CMM 134) and (CMM 212 or CMM 214) with a grade of C or greater) or Consent of Instructor. Laboratory: 4 credits (120 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

CMM 222(2) Course ID: 001826
Advanced Industrial Machining II
Advances students to a higher level of industrial standards by exposing them to additional tasks using a cylindrical grinder. **National Standards require EDM and cylindrical grinder training. Those programs lacking this equipment can only present theory. KCTCS is presently trying to acquire EDM and cylindrical. Pre-requisite: (CMM 212 or CMM 214 with a grade of C or greater) or Consent of Instructor. Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

CMM 224(6) Course ID: 001827
Advanced Industrial Machining
Designed to allow for the construction of electrodes and the production of parts by the use of an Electric Discharge Machine (EDM), cylindrical grinder, and other type of grinders. **National Standards require EDM and cylindrical grinder training. Colleges lacking this equipment can only present theory. KCTCS is presently trying to acquire EDM and cylindrical grinders. Pre-requisite: (CMM 134 and (CMM 212 or CMM 214) with a grade of C or greater) or Consent of Instructor. Laboratory: 6.0 credits (180 contact hours or 270 Clinical Contact).
Components: Laboratory
Attributes: Technical

CMM 230(6) Course ID: 001828
Instructor Consent Required
Conversational Programming
Introduces the student to conversational programming of CNC machine tools. Pre-requisite: Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

CMM 234(6) Course ID: 006244
Advanced Programming/Setup Practices
Uses CAM systems to effect engineering changes that enhance productivity. Uses CAM system to create and produce complex 3-D parts. Pre-requisite: ((CMM 2301 and CMM 2302) or (CMM 234 or CMM 138) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours) (30:1 Ratio Lab).
Components: Lecture
Attributes: Technical

CMM 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. Pre-requisite: ((CMM 2301 and CMM 2302) or (CMM 234 or CMM 138) with a grade of C or greater) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 4.0 credits (120 contact hours or 180 clinical contact).
Components: Lecture
Attributes: Technical

CMM 244(6) Course ID: 006245
Advanced Programming/Setup Practices
Uses CAM systems to effect engineering changes that enhance productivity to create and produce complex shapes on the CNC mill, lathe, EDM and water jet machines. Pre-requisite: ((CMM 2301 and CMM 2302) or (CMM 234 or CMM 138) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

CMM 298(1) Course ID: 001830
Instructor Consent Required
Practicum
Provides supervised on-the-job work experience related to the student's educational objectives. (Students participating in the Practicum do not receive compensation.) Pre-requisite: Permission of the Instructor. Practicum: 1.0 credit (75 contact hours).
Components: Practicum
Attributes: Technical
**CM 299(1)**
Course ID: 001831
Instructor Consent Required
Cooperative Education Program
Provides supervised on-the-job work experience related to the student's educational objectives. (Students participating in the coop do receive compensation.) Pre-requisite: Permission of Instructor. Co-op: 1.0 credit (75 contact hours).
Components: Co-Op
Attributes: Technical

**CMS 2301(3)**
Course ID: 005085
Introduction to Conversational Programming
Introduces students to conversational programming guidelines which will include program preparation, conversational input, and minor editing. Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Lecture

**CMS 2302(3)**
Course ID: 005086
Conversational Editing and Subroutines
Introduces students to performing editing routines, to subroutines, and to programs that contain loops. Requires students to interpret error messages from the control. Pre-requisite: CMS 2301 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Lecture

**CMS 2401(3)**
Course ID: 005087
Introduction to 3D Code Sequencing and Tool Path Production
Introduces students to creation of 3-D models and allows use of those models to be used in creation of tool paths for CNC machining tools. Pre-requisite: (CMS 130 and CMS 132) or (CMS 134 or CMS 138) and CMS 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 2402(3)**
Course ID: 005088
Advanced 3D Code Sequencing and Macro Systems
Introduces 3-D Programming using CAM systems to effect engineering changes that enhance productivity. Uses the CAM system to create and produce complex 3-D parts. Pre-requisite: (CMS 130 and CMS 132) or (CMS 134 or CMS 138) and CMS 2401 (with a Grade of C or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Lecture

**CMS 105(3)**
Course ID: 002092
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: 2.0 credit hours; Laboratory: 2.0 credit hours.
Components: Laboratory, Lecture
Attributes: Technical

**CMS 141(1 - 4)**
Course ID: 002094
Communications Practicum
Student works a minimum of two hours each week with the college radio station or TV station. Independent Study: 1 - 4 credits (15 - 60 contact hours).
Components: Independent Study

**CMS 142(1 - 4)**
Course ID: 002095
Communications Practicum
Student works a minimum of two hours each week with the college newspaper. Practicum: 1-4 credit hours (30-120 contact hours). Course may be repeated for a total of 4 credit hours.
Components: Practicum
Attributes: Other

**CMS 155(3)**
Course ID: 002057
Introduction to Broadcasting
Introduces the history of the broadcast media in the United States and to current operating practices including Internet distribution. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

**CMS 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

**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. Pre-requisite: Completion of at least 2 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 is enrolled, and minimum cumulative grade point average (GPA) of 2.0.
Components: Co-Op
Attributes: Technical

**COED Cooperative Education**

**COED 198(1 - 9)**
Course ID: 005265
Practicum
Provides a planned and evaluated work experience related to the student's educational objective in which the student receives academic credit but no financial remuneration. Practicum: 1-9 credits (45-405 contact hours). Pre-requisite: Consent of Instructor.
Components: Practicum
Attributes: Technical

**COED 199(3)**
Course ID: 001203
Cooperative Education I
Cooperative Education I 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. Pre-requisite/Co-requisite: Permission of instructor
Components: Co-Op
Attributes: Technical

**COM Communications**

**COM 101(3)**
Course ID: 000310
Introduction to Communications
Introduces the process of communication as a critical element in human interaction and in society. Enhances effective communication and informed use of the mass media. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

**COM 181(3)**
Course ID: 000311
Basic Public Speaking
Applies the basic principles and techniques in research, organization, and delivery of speeches for informative and persuasive speaking purposes. Provides practical platform experience in developing speaking abilities to enable the student to communicate orally in clear, coherent language appropriate to the purpose, occasion, and audience. Pre-requisite: Current KCTCS placement scores for college level reading and writing OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication

**COM 184(1)**
Course ID: 000313
Intercollegiate Debating
Preparation for and participation in intercollegiate debating. May be repeated to a maximum of two credits. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

**COM 205(3)**
Course ID: 016093
Business and Professional Communication
Provides opportunity to examine and develop oral communication strategies appropriate to business and professional environments. Includes oral presentations, interpersonal communication strategies, intercultural communication, interviewing, communicating in teams, leadership communication and conflict resolution skills. Does not substitute for COM 181 for Business transfer students. Pre-requisite: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication

**COM 249(3)**
Course ID: 000314
Mass Media Communication
Examines mass media messages, audiences, technologies, and regulations in a global society. Pre-requisite: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: SOC 249
Attributes: SB - Social Behavior Science

**COM 252(3)**
Course ID: 000315
Introduction to Interpersonal Communication
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Requires participation in written and oral activities designed to develop and improve interpersonal skills. Includes perspective-taking, relationship and conversation management, effective listening, conflict management, communication climate, communication anxiety, and cultural/gender differences in interpersonal communication. Pre-requisite Or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication, Course Also Offered in Modules

**COM 254(3)**
Course ID: 004552
Introduction to Intercultural Communication
Introduces intercultural communication with an emphasis on the relationships between culture and communication, social/psychological variables, verbal/nonverbal language systems, intercultural communication perceptions, and conflict resolution. Includes the practical application of contemporary issues in cross-cultural interaction, media representation, and daily social interactions to intercultural communication concepts. Pre-requisite or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

**COM 281(3)**
Course ID: 000316
Communication in Small Group
Examines communication processes in small group situations including conflict, leadership, and decision making. Includes participation in group discussion and the development of skills in analyzing group performance. Pre-requisite Or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication
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<td>Cosmetology I Theory</td>
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<td>0001214</td>
<td>Cosmetology II, L-6-2</td>
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<td>Communication Fundamentals</td>
<td>Lecture: 1 credit (15 contact hours)</td>
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<tr>
<td>016232</td>
<td>Communication In A Job Search</td>
<td>Lecture: 1 credit (15 contact hours)</td>
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<td>005800</td>
<td>Looking In</td>
<td>Lecture: 1 credit (15 contact hours)</td>
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<td>005801</td>
<td>Communicating and Responding</td>
<td>Lecture: 1 credit (15 contact hours)</td>
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<td>005802</td>
<td>Looking at Relational Dynamics</td>
<td>Lecture: 1 credit (15 contact hours)</td>
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<td>017365</td>
<td>Student Teaching II</td>
<td>Lecture: 1 credit (15 contact hours)</td>
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<td>017165</td>
<td>Cosmetology I Theory</td>
<td>Lecture: 1 credit (15 contact hours)</td>
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<td>017167</td>
<td>Cosmetology II Practical Application</td>
<td>Lecture: 1 credit (15 contact hours)</td>
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<td>017366</td>
<td>Nail Technology</td>
<td>Lecture: 1 credit (15 contact hours)</td>
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<td>001223</td>
<td>Cosmetology I, L-6</td>
<td>Lecture: 1 credit (15 contact hours)</td>
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<td>0001214</td>
<td>Cosmetology II, L-6-2</td>
<td>Lecture: 1 credit (15 contact hours)</td>
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**COM 284(1) Intercollegiate Debating**
Preparation for and participation in intercollegiate debating. May be repeated to a maximum of four credits. Lecture: 1 credit hour (10 contact hours).

**COM 287(3) Persuasive Speaking**
Examines the processes involved in attitude change, with emphasis on the preparation and delivery of persuasive messages. Pre-requisite: COM 181. Lecture: 3 credits (45 contact hours).

**COM 299(3) Special Topics in Communication**
A sophomore level study of a selected topic in communication. Pre-requisite: COM 181 or COM 252 or consent of instructor. Lecture: 3.0 credit hours.

**COS 107(14) Basic Informational Speaking**
Provides practical platform experience in developing speaking abilities to enable the student to communicate orally in clear, coherent language appropriate to the presentation of informative speeches. Pre-requisite: COM 1811. Lecture: 1 hour (15 contact hours).

**COS 108(6) Basic Persuasive Speaking**
Provides practical platform experience in developing speaking abilities to enable the student to communicate orally in clear, coherent language appropriate to the presentation of persuasive speeches. Pre-requisite: COM 1812. Lecture: 1 hour (15 contact hours).

**COS 116(14) Communication Fundamentals**
Demonstrates the role of oral communication in culturally diverse business and professional settings and develops an understanding of self-perception and impression management. Pre-requisite: Current KCTCS placement scores for college level reading and writing OR Consent of Instructor. Lecture: 1 credit (15 contact hours).

**COS 118(5) Communication In A Job Search**
Provides experience in communication developing communication skills for use in technology-based job exploration with emphasis on ethics, interviewing, active listening, and verbal and nonverbal communication for use in culturally diverse business and professional settings. Pre-requisite: COM 2051. Lecture: 1 credit (15 contact hours).

**COS 2521(1) Looking In**
Examines basic verbal and nonverbal concepts affecting the interpersonal process. Includes both verbal and nonverbal elements affecting communication between individuals in settings ranging from the family, peer groups, and work contexts. Pre-requisite Or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 1 hour (15 contact hours).

**COS 2522(1) 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. Pre-requisite: COM 2521. Lecture: 1 credit (15 contact hours).

**COS 2523(1) 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 relations and the concepts involved in such relationships including compliance-gaining and conflict resolution. Pre-requisite: COM 2522. Lecture: 1 hour (15 contact hours).

**COS 108(6) Cosmetology I Theory**
Identifies attitudes and behaviors for successful Cosmetologist. Describes Kentucky Statutes and regulations, safety, bacteriology, sanitation, infection control, basic first aid, structure of the hair and nails as related to hairstyling, cutting, manicures and pedicures. Pre-requisite: High school diploma or equivalent. Lecture: 6 credit hours (90 contact hours).

**COS 109(6) Cosmetology II Theory**
Examines the processes involved in attitude change, with emphasis on the preparation and delivery of persuasive messages. Pre-requisite: COM 181. Lecture: 3 credits (45 contact hours).

**COS 118(5) Cosmetology II Practical Application**
Demonstrates the role of oral communication in culturally diverse business and professional settings and develops an understanding of self-perception and impression management. Pre-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 1 credit (15 contact hours).

**COS 119(7) Communication In Organizations**
Provides experience in developing communication competency in leadership roles, conflict management, and effective, informative, and persuasive communication skills for use in culturally diverse business and professional settings. Pre-requisite: COM 2052. Lecture: 1 credit (15 contact hours).

**COS 2053(1) Communication In Organizations**
Provides experience in developing communication competency in leadership roles, conflict management, and effective, informative, and persuasive communication skills for use in culturally diverse business and professional settings. Pre-requisite: COM 2052. Lecture: 1 credit (15 contact hours).

**COS 2523(1) Student Teaching I**
Introduces teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates teaching methods of theory, media use, and testing methods. Develops and applies the methods used to teach the practical application of skills. Demonstrates the Kentucky Board of Cosmetology rules and regulations. Lecture: 3 credits (45 contact hours). Laboratory: 11 credits (330 contact hours).

**COS 108(6) Cosmetology I Theory**
Identifies attitudes and behaviors for successful Cosmetologist. Describes Kentucky Statutes and regulations, safety, bacteriology, sanitation, infection control, basic first aid, structure of the hair and nails as related to hairstyling, cutting, manicures and pedicures. Pre-requisite: High school diploma or equivalent. Lecture: 6 credit hours (90 contact hours).

**COS 109(6) Cosmetology II Theory**
Examines the processes involved in attitude change, with emphasis on the preparation and delivery of persuasive messages. Pre-requisite: COM 181. Lecture: 3 credits (45 contact hours).

**COS 118(5) Cosmetology II Practical Application**
Demonstrates basic hair, nail and skin care services utilizing safety precautions, sanitation and infection control procedures. Pre-requisite: High school diploma of equivalent. Co-requisite: COS 108. Laboratory: 6 credit hours (270 contact hours).

**COS 119(7) Cosmetology II Practical Application**
Demonstrates the role of oral communication in culturally diverse business and professional settings and develops an understanding of self-perception and impression management. Pre-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 1 credit (15 contact hours).

**COS 127(14) Cosmetology III**
Expands teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates advanced teaching methods of theory, media use, and testing methods. Develops and applies the methods used to teach the practical application of skills. Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Hairdressers and Cosmetologists instructor examination. Pre-requisite: COS 107. Lecture: 5 credit hours (75 contact hours). Laboratory: 11 credits (330 contact hours).

**COS 135(1-6) Instructor Consent Required**
Provides additional lecture/laboratory time to meet licensure requirements of 1800 clock hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 8.0 credit hours (15 -120 contact hours). Laboratory: 1.0 - 8.0 credit hours (30 - 240 contact hours).
COS 136(13)  Course ID:017367
Esthetics 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. Lecture: 7 credits (105 contact hours). Laboratory: 6 credits (270 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

COS 146(13)  Course ID:017368
Esthetics II
Covers organic/inorganic chemistry and cosmetic ingredients. Focuses on facial enhancements through the use of make-up artistry and application including hair removal procedures and applications. Includes the study of skin conditions, disorders and diseases, and those treatable by the esthetician. Explains treatments related to skin and skin disorders. Covers procedures for business and management, the practice of esthetic setup, disinfection, application techniques, advanced esthetics which include peels, deep pore cleansing, clinical skin care, aroma therapy, and spa/body treatments. Includes Kentucky Board of Cosmetology 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. Pre-requisite: COS 136 or Instructor permission. Lecture: 7 credits (105 contact hours). Laboratory: 6 credits (270 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

COS 216(20)  Course ID:015567
Teaching I
Introduces teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates teaching methods of theory, media use, and testing methods. Develops and applies the methods used to teach the practical application of skills. Pre-requisite: Cosmetologist’s License, one year work experience, and Apprentice Cosmetologists Instructor’s License. Lecture: 6.0 credits (90 contact hours). Lab: 14.0 credits (420 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

COS 217(20)  Course ID:015568
Teaching II
Expands teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates advanced teaching methods of theory, media use, and testing methods. Develops and applies methods used to teach the practical application of skills. Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Hairdressers and Cosmetologist’s instructor examination. Pre-requisite: COS 216. Lecture: 6.0 credits (90 contact hours). Lab: 14.0 credits (420 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

COS 218(14)  Course ID:001215
Cosmetology III, 6-3
Provides knowledge of the structure and function of the human body, including the interaction of all the body systems in maintaining homeostasis. All phases of beauty salon management are studied, including interacting with clients, co-workers and supervisors. Laboratory experience is advanced with performance expectations set at a higher level. Lecture/Laboratory: 14 credits (450 contact hours).

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

COS 220(12)  Course ID:001216
Cosmetology IV, 6-4
This course is designed for a total review of the cosmetology curriculum. A comprehensive written and practical exam is given in preparation for the State Board Licensure exam. Students implement their own judgement of procedures and solutions to be used on clients with supervision. Lecture/Laboratory: 14 credits (450 contact hours).

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

COS 222(6)  Course ID:017092
Cosmetology Review
Designed as a total review of the Cosmetology curriculum. A comprehensive written and practical exam is given in preparation for the State Board Licensure exam. Students implement their own judgment of procedures and solutions to be used on clients with supervision. Pre-requisite: COS 114, 116, 218 or consent of instructor. Lecture: 4 credit hours (60 contact hours) Lab: 2 credit hours (90 contact hours)

Components: Laboratory, Lecture
Attributes: Technical

COS 228(5)  Course ID:017169
Cosmetology III Theory
Provides knowledge of the structure and function of the human body, including all the body systems. A concept of artificial hair, hair enhancements, braiding and extensions, electricity and light therapy and business skills are studied. Pre-requisite: Successful completion of COS 116 or COS 118 & COS 119. Lecture: 5 credit hours (75 contact hours).

Components: Lecture
Attributes: Technical

COS 229(7)  Course ID:017170
Cosmetology III Practical Application
Illustrate laboratory experiences with advanced performance expectations, including interacting with clients, co-workers and supervisors. The application of general anatomy is applied in laboratory settings and the techniques of all areas relating to salon business skills. Pre-requisite: Successful completion of COS 116 or COS 118 & COS 119. Co-requisite: COS 228. Laboratory: 7 contact hours (315 contact hours).

Components: Laboratory
Attributes: Technical

COS 235(1 - 8)  Course ID:004413
Instructor Consent Required Individual Requirements II
Provides additional lecture/laboratory time to meet licensure requirements of 1800 clock hours. Pre-requisite: Consent of Instructor. Lecture/Lab: 1.0 - 8.0 credit hours (15 - 120 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

COS 239(6)  Course ID:017171
Cosmetology IV Theory
Recall the comprehensive written exam in preparation for the Kentucky Board Licensure exam. Pre-requisite: Successful completion of COS 218 or COS 228 & COS 229. Lecture: 6 credit hours (90 contact hours).

Components: Lecture
Attributes: Technical

COS 239(6)  Course ID:017172
Cosmetology IV Practical Application
Demonstrate the comprehensive practical exam in preparation for Kentucky Board Licensure exam. Pre-requisite: Successful completion of COS 218 or COS 228 & COS 229. Co-requisite: COS 238. Laboratory: 6 credit hour (270 contact hours).

Components: Laboratory
Attributes: Technical

COS 1141(3)  Course ID:004994
Introduction to Cosmetology
An introduction to professionalism and communication. Topics include Kentucky Statutes and Regulations, safety and decontamination. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).

Components: Lecture

COS 1142(3)  Course ID:004995
Basics of Cosmetology
Provides fundamental principles and skills of 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 (80 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 base for application of makeup. Hair removal principles and techniques. Lecture: 1 credit (15 contact hours).

Components: Lecture
COS 2181(3) Course ID:005010
Anatomy for Cosmetology I
Study of the structures and functions of the human body. Application of these studies in cosmetology services. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (30 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. Application of these studies in cosmetology services. Pre-requisite: (COS 1161 and COS 1162 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). Lecture: 1 credit (45 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. Pre-requisite: (COS 1161 and COS 1162 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).

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. Lecture: 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).
Component: 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. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

CRI Criminal Justice

CRI 100(3) Course ID:004191
Introduction to Criminal Justice
Provides an introduction to the philosophical and historical background of agencies of the criminal justice systems, processes, purposes and functions. Includes an evaluation of the criminal justice system today, including trends and career orientation. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 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 Attributes: Technical

CRI 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 Attributes: Technical

CRI 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 Attributes: Technical

CRI 108(4) Course ID:007357
Advanced Firearms and Less Than Lethal Weapons
Provides an advanced working knowledge of the use, care, safety, and legal application of firearms and less than lethal weapons. Includes live fire with the use of pistol, shotgun/ rifle, and less than lethal weapons. Pre-requisite: CRI 107 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 2.0 credits (30 contact hours); Lab: 2.0 credits (69 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CRI 110(3) Course ID:004195
Principles of Asset Protection
Provides an introductory understanding of private security procedures. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 201(3) Course ID:000899
Introduction to Criminalistics
Provides a basic knowledge of crime scene protection, collection, preservation, and identification of evidence, including proper search, dusting latent prints, casting fingerprint classification, and use of crime laboratory in crime detection and prosecution. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 202(3) Course ID:004196
Issues and Ethics in Criminal Justice
Provides an understanding of the issues and ethical dilemmas confronting practitioners within the criminal justice system. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 203(2) Course ID:004197
Community Corrections: Probations & Parole
Provides an in-depth study of the history and current processes and procedures of probation, parole, and intermediate sanctions that makes up community corrections. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 204(3) Course ID:004198
Criminal Investigations
Provides the fundamentals of crime scene investigations, which includes searching and recording of the scene, collection and preservation of physical evidence, interviews and interrogation of victims, witnesses, and suspects, report writing and case preparation. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 208(3) Course ID:004199
Delinquency and the Juvenile Justice System
Provides an introduction of the origins and theories associated with juvenile delinquency, and a comprehensive analysis of environmental issues that influence delinquency, plus a thorough overview of the juvenile justice system processes. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 210(3) Course ID:004200
Physical Security Technology & Systems
Introduces facility security with the use of environmental design and integrated electronic technology (cameras, monitors, and alarms). Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 211(3) Course ID:004201
Liability & Legal Issues
Provides an overview of legal aspects of security, which includes but is not limited to civil and criminal law, liability of asset protection, use of force, false imprisonment, negligent security, and invasion of privacy. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) AND (CRI 100 or Consent of Instructor). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 215(3) Course ID:004202
Introduction to Law Enforcement
Provides an introduction to the study of law enforcement. Introduces the historical developments of law enforcement, professional operators and programs. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 216(3) Course ID:004203
Criminal Law
Provides an overview of the definitions and functional components of criminal law in the field of criminal justice. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
CRJ 217(3) Course ID:004204
Criminal Procedures
Provides an overview of the different criminal procedural laws by examining the specific Amendments that outline the guidelines of the administration of substantive laws. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Same As Offering: CRI 217
Attributes: Technical

CRJ 218(3) Course ID:004193
Police Supervision
Provides an overview of the administrative, supervisory, and leadership roles that are required within a law enforcement agency. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) AND CRJ 100 or CRJ 215 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 219(4) Course ID:007358
Police Recruit Defensive Tactics
Provides the proper methods of police defensive tactics, emphasizes necessary skills, and establishes an understanding of use of force policies and legal implications. Pre-requisite: CRJ 215 and (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 1.0 credit (15 contact hours). Lab: 3.0 credits (91.5 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

CRJ 220(3) Course ID:005220
Introduction to Computer Forensics for Criminal Justice
Introduces the study of cybercrime with an emphasis on planning, detection, and response with the goals of countering and overcoming hacker attacks and computer-related offenses. Malicious activities will be logged and forensic tools will be used to gather court-admissible evidence. Pre-requisite: Completion of an approved Computer Literacy Course with a grade of C or greater, or computer literacy demonstrated by competency exam; AND (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

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
Attributes: Technical

CRJ 224(4) Course ID:007359
Basic Traffic Collision Investigation
Introduces basic vehicle collision investigation, from a law enforcement perspective, and entails evidence and investigation techniques and mathematical calculations. Pre-requisite: CRJ 204 and MAT 110 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement for ENC 091 or higher or completion of ENC 090). Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

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
Attributes: Technical

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 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

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. Introduces legal aspects of corrections included a historical perspective, as well as applicable case law, in the areas of corrections operations, practices, and procedures. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

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 basic corporate and industrial security procedures and the roles of the key personnel within the private security arena. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

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 defining, identifying, and investigating business and industrial fraud. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 277(1) Course ID:006804
Introduction to Criminology
Provides an introduction to the understanding of criminal behavior by focusing on crime trends and patterns, the amount of crime, and the theories of crime. Theories of crime will include the biological, psychological, sociological, and integrated explanations of behavior. Theories of crime will be utilized to address the procedures and administration of criminal justice in society. Pre-requisite: If yes, list: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 278(3) Course ID:005781
Terrorism and Political Violence
Provides an introduction to the study of terrorism and terrorist organizations. Introduces the student to the diverse definitions of terrorism and the social and political consequences of varying definitions, behavioral aspects of terrorist and the various justifications for terrorist activities. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 290(3) Course ID:004206
Internship in Criminal Justice
Allows the criminal justice student the opportunity to broaden their educational experience through observation and work assignments at a recognized criminal justice agency. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 295(1) Course ID:015650
Criminal Justice Capstone
Serves as the capstone course for the Criminal Justice degree program. Integrates prior learning outcomes into a single integrated learning experience. Includes preparation for and completion of the post exit exam that all program graduates must complete. Pre-requisite: (CRJ 100 and CRJ 202 and CRJ 204 and CRJ 216 and CRJ 217) AND OR consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

CRJ 296(3) Course ID:001629
Criminal Psychology
Provides a basic understanding of the psychological theories explaining criminal behavior. Includes topics regarding the effects of the brain's structural and functional processes on behavior, evidence based psychological techniques for treating criminal behavior, behavioral profiling, basic overview of common mental health problems, ways of recognizing mental health issues when dealing with offenders, and proven psychological techniques for calming problem situations thereby creating a safer and more efficient solution. Pre-requisite: CRJ 100, PSY 110. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 299(1 - 3) Course ID:004207
Instructor Consent Required
Selected Topics in Criminal Justice
Introduces specialized topics in the field of criminal justice to meet current trends and investigations of contemporary topics in the discipline. The topics of the course and the number of credit hours determined are at the discretion of the instructor and college providing the course. This course may be repeated to a maximum of 6 credit hours. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 1.0 - 3.0 credits (15 - 46 contact hours).

Components: Lecture
Attributes: Technical
Components: Co-Op

In the Co-op Education program, students receive compensation for their educational objectives. (Students participating in the practicum do not receive compensation. May be taken for 1.0 credits.) Pre-requisite: Consent of Instructor. Co-op: 1.0 - 8.0 contact hours.

Components: Lecture
Attributes: Technical

Components: Practicum

Components: Laboratory

Components: Advanced Practicum
CUL 100(2)  Course ID: 004209
Introduction to Culinary Arts
Provides an introduction to several aspects of the food industry. Includes an overview of the history of the profession and current career opportunities and trends. Introduces proper terminology for various types of equipment and cooking methods. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

CUL 105(2)  Course ID: 004210
Applied Introduction to Culinary Arts
Provides an applied introduction to several aspects of the food industry. Includes an overview of the history of the profession and current career opportunities and trends. Introduces proper terminology for various types of equipment and cooking methods in a laboratory setting. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 215(4)  Course ID: 004213
Basic Food Production
This course provides a study of the basic principles of food selection, storage, and preparation, identification and classification of fruits and vegetables; preparation of stocks, soups and sauces; basic principles of cooking; baking; kitchen operations; and a study of breakfast food. Pre-requisite or Co-requisite: (CUL 100 and CUL 200) or consent of instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 219(4)  Course ID: 004214
Basic Baking
Applies fundamentals of baking science to preparation of a variety of products and to learn use and care of equipment in bake shop and/or baking area. Pre-requisite or Co-requisite: CUL 100 or CUL 200 or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 220(4)  Course ID: 004215
Advanced Baking & Pastry Arts
Applies fundamentals of baking science to the preparation of a variety of baked products including choux paste, frozen desserts, and creams, custards, and related sauces. Emphasis will be placed on nutritional aspects of baked products and finshing techniques. Pre-requisite: CUL 215. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 225(4)  Course ID: 005137
Professional Confection and Pastry Arts
Finishing techniques for confections and pastries, creating decorative centerpieces, sugar artistry, and cake decorating. Fundamentals of baking science along with advanced finishing techniques. Pre-requisite: CUL 215. Lecture: 2 credits (30 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 230(3)  Course ID: 004216
Basic Nutrition
Describes the characteristics, functions, and food sources of the major nutrients and how to maximize nutrient retention in food preparation and storage. Applies the principles of nutrient needs throughout the life cycle through menu planning and preparation for specialty diets. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CUL 235(4)  Course ID: 01706
Farm to Table
Introduces local, seasonal, and sustainable cooking emphasized through the management of fruit, grain, and vegetable production while applying various cooking techniques. Utilize fresh ingredients in the preparation of appetizers, salads, entrees, and desserts. Incorporates canning and preserving methods for when fresh ingredients are out of season. Pre-requisite: CUL 100, CUL 125, CUL 211, CUL 215, OR Instructor Approval. Lecture: 2 credits (30 contact hours) Lab: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 240(4)  Course ID: 004217
Meats, Seafood, & Poultry
This course focuses on the identification of various cooking techniques for and the preparation of meats, seafood, and poultry. Pre-requisite: CUL 100 and CUL 200. Pre-requisite or Co-requisite: CUL 211 or consent of the instructor. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 250(4)  Course ID: 004211
Garde Manger
This course includes the production of hot and cold sandwiches, hors d’oeuvre, canapes and salads. Garnishing techniques along with cold food production are discussed. Decorative skills as related to buffets and exhibits are explored. Co-requisite: CUL 100 or Consent of instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 260(4)  Course ID: 004218
International & Classical Cuisine
This course focuses on the study and preparation of international and classical cuisine. Pre-requisite: CUL 100 and CUL 200. Pre-requisite or Co-requisite: CUL 111 and CUL 211 and CUL 215 and CUL 240) or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

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. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

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: 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).
Components: Lecture
Attributes: Technical

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: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CUL 290(4)  Course ID: 004223
Front of the House-Catering
Focuses on the operations in front of the house management including service techniques and dining room service, beverage service (non-alcoholic and alcoholic beverages), POS systems, and menu planning. Pre-requisite: CUL 100 and CUL 111 and CUL 200 and CUL 211 and CUL 215 and CUL 240) or consent of the instructor. Lecture/Laboratory: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CUL 295(3)  Course ID: 005138
Doing Business as a Personal Chef
A general overview of the business aspects of starting and operating a personal chef service. Pre-requisite: All Technical Core Courses as outlined in the current Culinary Arts Curriculum. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CUL 297(1 - 6)  Course ID: 004224
Selected Topics in Culinary Arts
Various culinary arts topics, issues, and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; courses may be repeated with different topics to a maximum of six credits. Lecture: varies by topic; Lab: varies by topic. Pre-requisite: Consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

CUL 298(2 - 3)  Course ID: 004225
Culinary Arts Practicum Experience
Practicum enhances the student’s transition from class to the work of work by providing unpaid work experience in a simulated or on-campus setting that utilizes the skills required to achieve the student’s occupational goal. Pre-requisite: Consent of instructor. Practicum: 2.0 - 3.0 credits (120-180 contact hours).
Components: Practicum
Attributes: Technical

CUL 299(2 - 3)  Course ID: 004226
Culinary Arts Cooperative Education Experience
Enhances the student’s transition from class to the workforce by providing a paid work experience in a setting that utilizes the skills required to achieve the student’s occupational goal. Pre-requisite: Consent of instructor. Practicum: 2.0 -3.0 credits (120 -180 contact hours).
Components: Practicum
Attributes: Technical

CUL 1001(1)  Course ID: 016347
Culinary Industry Trends
Provides an introduction to several aspects of the food industry. Includes an overview of the history of the profession and current career opportunities and trends. Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 1002(1)  Course ID: 016348
Culinary Arts Terminology
Provides an introduction to several aspects of the food industry. Introduces proper terminology for various types of equipment and cooking methods. Pre-requisite: CUL 1001. Lecture: 1 credit (15 contact hours).
Components: Lecture


CUL 1251(1) Course ID:0016349
Food Handling Practices
Reinforce personal hygiene habits and food handling practices that protect the health of the consumer. Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 1252(1) Course ID:0016350
Food Service Sanitation/Safety
Develops an understanding of the basic principles of sanitation and safety and applies them in the food service operations. Pre-requisite: CUL 1251. Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 2301(1) Course ID:0016351
Food and Nutrient Sources
Describes the characteristics, functions, and food sources of the major nutrients. Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 2302(1) Course ID:0016352
Menu Planning and Preparation
Describes how to maximize nutrient retention in food preparation and storage. Pre-requisite: CUL 2301. Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 2801(1) Course ID:0016354
Food Service Operating Cost
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the area of cost. Pre-requisite: A mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 2802(1) Course ID:0016355
Food Service Control Costs
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the area of control. Pre-requisite: CUL 2801. Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 2803(1) Course ID:0016356
Food Service Financial Aspects
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the areas of purchasing and receiving. Pre-requisite: CUL 2802. Lecture: 1 credit (15 contact hours).
Components: Lecture

DAH Dental Hygiene

DAH 120(3) Course ID:000333
Dental Sciences
Examines oral histology and embryology, head and neck anatomy, and tooth morphology as applicable to the practice of dental assisting and dental hygiene. Pre-requisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

DAH 121(3) Course ID:000334
Materials in Dentistry
Examines the physical and chemical properties of dental materials with an emphasis on composition and application. Pre-requisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 1.5 credits (22.5 contact hours), Lab: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DAH 123(3) Course ID:000335
Oral Pathology
Introduces the disciplines of general pathology and oral pathology as related to dental auxiliary function. Pre-requisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, DAS 125, and DAS 130; Dental Hygiene: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

DAH 235(1) Course ID:000336
Practice Management
Examines legal, ethical, and managerial aspects of the dental practice. Pre-requisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, DAS 125 and DAS 130; Dental Hygiene: Minimum grade of “C” in DHG 220 and DHG 226. Lecture: 1.0 credit (15 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DAH 134(2) Course ID:004331
Pharmacology
Examines the disciplines of pharmacology and therapeutics as related to dental hygiene. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 2.0 credits (30 contact hours), Lab: 0.5 credits (60 contact hours). Clinical: 1.0 credit (120 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DAH 135(2) Course ID:006813
Preventive Dentistry
Introduces dental biofilm and its role in dental disease. Emphasizes the role nutrition plays regarding disease initiation and progression and the methods and preventive agents utilized by the auxiliary to prevent oral disease. Pre-requisite: Dental Assisting: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DAH 245(2) Course ID:015653
Clinical Externship
Apply and practice principles and skills acquired in the areas of chairside assisting, operative procedures, specialty procedures, laboratory procedures, business office procedures and dental radiology. Consists of observation and practice in a dental office setting with emphasis on chairside activities. Pre-requisite: Dental Assisting: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Practicum: 5.0 credits (320 contact hours).
Components: Practicum Attributes: Technical

DHG Dental Hygiene

DHG 120(3) Course ID:000337
Pre-Clinical Dental Hygiene
Stresses basic assessment and clinical skills, related theory, and professional role and responsibilities of the dental hygienist as a member of the dental health team. Pre-requisite: Admission into the Dental Hygiene Integrated Program. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (120 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DHG 130(3) Course ID:000338
Clinical Dental Hygiene I
Focuses on preparing the student to provide patient treatment that includes preventive and therapeutic procedures to maintain oral health and assist the patient in achieving oral health goals. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.5 credits (22.5 contact hours), Lab: 0.5 credits (60 contact hours). Clinical: 1.0 credit (120 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Technical

DHG 132(2) Course ID:004331
Pharmacology
Examines the disciplines of pharmacology and therapeutics as related to dental hygiene. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 2.0 credits (30 contact hours). Components: Lecture Attributes: Technical

DHG 134(2) Course ID:006811
Dental Nutrition
Presents basic principles of nutrition with emphasis on nutritional counseling in relationship to dental health, determination of patient nutritional status, and application to oral health and effects of nutritional deficiencies. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical
DHG 136(1) Course ID:000340
Periodontology
Focuses on the clinical, histological, and radiographic differences between healthy and unhealthy periodontal tissues. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

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. Pre-requisite: Minimum grade of C in DAH 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 Attributes: Technical

DHG 221(2) Course ID:004778
Local Anesthesia and Nitrous Oxide Sedation
Presents a conceptual framework and clinical skills necessary to administer local dental anesthetics and nitrous oxide sedation in accordance with state dental practice acts. Pre-requisite: Minimum grade of C in DAH 131, DHG 130, DHG 132, DHG 134, and DHG 136. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DHG 226(2) Course ID:000342
Advanced Periodontology
Focuses on the role of the dental hygienist in the prevention, diagnosis and treatment of periodontal diseases. Pre-requisite: Minimum grade of C in DAH 131, DAH 130, DAH 132, DAH 134, and DAH 136. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

DHG 230(3) Course ID:000343
Clinical Dental Hygiene III
Focuses on mastery of dental hygiene clinical skills for patient care and preparation for written and clinical board examinations. Pre-requisite: Minimum grade of C in DHG 220 and DHG 226. Lecture: 1.0 credit (12 contact hours). Clinical: 2.0 credits (240 contact hours).
Components: Clinical, Lecture Attributes: Technical

DHG 238(2) Course ID:000344
Community Dental Health Issues
Examines basic concepts in assessing community dental health needs and planning, implementing, evaluating, and presenting dental health programs to various community groups. Pre-requisite: Minimum grade of C in DHG 220 and DHG 226. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

DHP Dental Hygiene

DHP 120(4) Course ID:004859
Dental Hygiene I
Includes basic assessment and clinical skills, related theory, professional role and responsibilities of the dental hygienist as a member of the dental health team. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalency; 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). Clinical: 1.5 hours (180 contact hours).
Components: Clinical, Lecture Attributes: Technical

DHP 122(2) Course ID:006832
Dental Nutrition
Presents basic principles of nutrition with emphasis on nutritional counseling in relationship to dental health, determination of patient nutritional status, and application to oral health and effects of nutritional deficiencies. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalency; and CPR certification. BIO 137 and BIO 139 or equivalent, with a grade of “C” or better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

DHP 123(2) Course ID:017369
Oral Biology
Focuses on oral histology and embryology, head and neck anatomy, and dental morphology applicable to the practice of dental hygiene. Pre-requisite: Acceptance into Dental Hygiene Program; digital literacy is defined by KCTCS or equivalency; and CPR certification. BIO 137 and BIO 139 or equivalent both with a minimum grade of C. Integrated Lecture: 1 credit (15 contact hours). Integrated Lab: 1 credit (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

DHP 124(2) Course ID:017370
Materials in Dentistry
Examines the physical and chemical properties of dental materials with an emphasis on composition and application. Pre-requisite: Acceptance into the Dental Hygiene Program; digital literacy as defined by KCTCS or equivalency; and CPR certification. BIO 137 and BIO 139 or equivalent both with a minimum grade of C. Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credits (22.5 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

DHP 130(3) Course ID:004861
Dental Hygiene II
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. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124, and (BIO 225 or BIO 226, or equivalent) all with a minimum grade of C. Lecture: 2.0 credits (30 contact hours). Clinical: 1.0 credit (120 contact hours).
Components: Clinical, Lecture Attributes: Technical

DHP 132(4) Course ID:017371
Oral Pathology and Pharmacology
Covers the disciplines of general pathology, oral pathology, pharmacology, and therapeutics as related to dental hygiene care. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124 and (BIO 225 or 226, or equivalent) all with a minimum grade of C. Integrated Lecture: 2.5 credits (37.5 contact hours). Integrated Lab: 1.5 credits (67.5 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

DHP 135(3) Course ID:004863
Dental Radiology
Introduces theory and clinical practice of oral radiography. Presents the history, development, properties and uses of x-rays. Emphasizes radiation hygiene and safety. Covers digital technology and all types of radiographic systems. Introduces radiographic anatomical landmarks and pathology seen on radiographs. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124, and (BIO 225 or BIO 226, or equivalent) all with a minimum grade of C. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DHP 136(3) Course ID:004864
Periodontics I
Introduces the clinical, histological, and radiographic differences between healthy and unhealthy periodontal tissues. Emphasizes etiology, risk factor assessment, pathogenesis, and classification of periodontal diseases. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124, and (BIO 225 or BIO 226, or equivalent) all with a minimum grade of C. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

DHP 220(3) Course ID:004865
Dental Hygiene III
Focuses on the role of the dental hygienist in the identification and treatment of periodontal diseases. Pre-requisite: Acceptance into the Dental Hygiene Program; digital literacy as defined by KCTCS or equivalency; and CPR certification. DHP 130, DHP 132, DHP 135, and DHP 136 all with a minimum grade of C. Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DHP 226(2) Course ID:004867
Periodontics II
Focuses on the role of the dental hygienist in the identification and treatment of periodontal diseases. Pre-requisite: Acceptance into the Dental Hygiene Program; digital literacy as defined by KCTCS or equivalency; and CPR certification. DHP 130, DHP 132, DHP 135, DHP 136 all with a minimum grade of C. Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DHP 229(2) Course ID:004850
Local Anesthesia and Nitrous Oxide Sedation
Introduces theory and clinical practice of oral radiography. Presents the history, development, properties and uses of x-radiation. Emphasizes radiation hygiene and safety. Covers digital technology and all types of radiographic systems. Introduces radiographic anatomical landmarks and pathology seen on radiographs. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124, and (BIO 225 or BIO 226, or equivalent) all with a minimum grade of C. Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DHP 230(3) Course ID:004868
Dental Hygiene IV
Focuses on mastering all dental hygiene clinical skills utilized in treating all types of patients. Pre-requisite: DHP 220, DHP 222, DHP 226, and DHP 229 all with a minimum grade of C. Clinical: 2.0 credits (240 contact hours). Discussion: 1.0 credit (15 contact hours).
Components: Clinical, Discussion Attributes: Technical

DHP 235(1) Course ID:004869
Principles of Practice
Focuses on preparing the student to provide patient treatment in response to a patient’s medical condition. Pre-requisite: DHP 130, DHP 132, DHP 135 and DHP 136 all with a minimum grade of C. Clinical: 2.0 credits (240 contact hours). Discussion: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

DHP 238(3) Course ID:004870
Community Dental Health
Examines the assessment, planning, implementation and evaluation of community oral health needs. Focuses on reading and interpreting evidence-based literature. Relates current trends and best practices in oral health education. Emphasizes the presentation of dental health programs and educational research projects to community groups. Pre-requisite: DHP 220, DHP 222, DHP 226 and DHP 229 all with a minimum grade of C. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Attributes</th>
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<tbody>
<tr>
<td>DIT 299(1 - 4)</td>
<td>Independent Study in Dental Hygiene</td>
<td>Technical</td>
<td>Laboratory, Lecture</td>
<td>2 to 4 credits (90 contact hours)</td>
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<tr>
<td>DIT 150(3)</td>
<td>Powertrain for Construction Equipment</td>
<td>Technical</td>
<td>Laboratory</td>
<td>3 credits (45 contact hours)</td>
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<td>DIT 152(3)</td>
<td>Powertrain for Construction Equipment</td>
<td>Technical</td>
<td>Lecture</td>
<td>3 credits (45 contact hours)</td>
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<tr>
<td>DIT 120(3)</td>
<td>Introduction to Maintenance Welding</td>
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<td>3 credits (45 contact hours)</td>
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<tr>
<td>DIT 113(2)</td>
<td>Diesel Engine Repair Lab</td>
<td>Technical</td>
<td>Laboratory</td>
<td>2 credits (90 contact hours)</td>
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<tr>
<td>DIT 112(3)</td>
<td>Diesel Engine Repair Lab</td>
<td>Technical</td>
<td>Lecture</td>
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<td>DIT 102(2)</td>
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<tr>
<td>DIT 140(3)</td>
<td>Hydraulics</td>
<td>Technical</td>
<td>Lecture</td>
<td>3 credits (45 contact hours)</td>
</tr>
<tr>
<td>DIT 111(2)</td>
<td>Introduction To Diesel Engines</td>
<td>Technical</td>
<td>Lecture</td>
<td>2 credits (90 contact hours)</td>
</tr>
<tr>
<td>DIT 141(2)</td>
<td>Hydraulics Lab</td>
<td>Technical</td>
<td>Lecture</td>
<td>3 credits (45 contact hours)</td>
</tr>
<tr>
<td>DIT 110(3)</td>
<td>Introduction To Diesel Engines</td>
<td>Technical</td>
<td>Lecture</td>
<td>3 credits (45 contact hours)</td>
</tr>
<tr>
<td>DIT 151(2)</td>
<td>Power Trains Lab</td>
<td>Technical</td>
<td>Lecture</td>
<td>2 credits (90 contact hours)</td>
</tr>
<tr>
<td>DIT 152(3)</td>
<td>Powertrain for Construction Equipment</td>
<td>Technical</td>
<td>Lecture</td>
<td>3 credits (45 contact hours)</td>
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<tr>
<td>DIT 120(3)</td>
<td>Introduction to Maintenance Welding</td>
<td>Technical</td>
<td>Lecture</td>
<td>3 credits (45 contact hours)</td>
</tr>
<tr>
<td>DIT 113(2)</td>
<td>Diesel Engine Repair Lab</td>
<td>Technical</td>
<td>Lecture</td>
<td>3 credits (45 contact hours)</td>
</tr>
<tr>
<td>DIT 112(3)</td>
<td>Diesel Engine Repair Lab</td>
<td>Technical</td>
<td>Lecture</td>
<td>3 credits (45 contact hours)</td>
</tr>
<tr>
<td>DIT 102(2)</td>
<td>Preventive Maintenance Lab</td>
<td>Technical</td>
<td>Laboratory</td>
<td>1.0 credit (45 contact hours)</td>
</tr>
<tr>
<td>DIT 140(3)</td>
<td>Hydraulics</td>
<td>Technical</td>
<td>Lecture</td>
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<td>Lecture</td>
<td>3 credits (45 contact hours)</td>
</tr>
</tbody>
</table>
DIT 198(1)  Components: Lecture
Instructor Consent Required
Practicum
The Practicum provides supervised on-the-job work experience related to the student's education objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Permission of Instructor.
Co-op: 1 credit (75 contact hours).
Components: Practicum
Attributes: Technical

DIT 199(1)  Components: Lecture
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. Pre-requisite: Permission of Instructor.
Co-op: 1 credit (75 contact hours).
Components: Co-Op
Attributes: Technical

DIT 298(2)  Components: Lecture
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. Pre-requisite: Permission of Instructor.
Practicum: 2 credits (150 contact hours).
Components: Practicum
Attributes: Technical

DLC Digital Literacy

DLC 101(3)  Components: Lecture
Digital Literacy
Introduces the central components of digital literacy including computer operation for information gathering, communication, and living/working online. Presents how to use productivity software such as word processors, spreadsheets, databases, and presentation software. Exploration of the legal and ethical environment concerning computer technology. Addresses issues related to computers security, troubleshooting, and methods for enhancing work and life. Pre-requisite: RDG 20 or Consent of Instructor. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Digital Literacy, Course Also Offered in Modules

DLC 101(1)  Components: Lecture
Digital Essentials
Introduces students to computer classifications, how to use an operating system, and how to use email. Pre-requisite: RDG 20 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

DLC 102(1)  Components: Lecture
Digital Intermediate
Introduces students the legal and ethical use of computers. Introduces students to the use of productivity software. Pre-requisite: DLC 101 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

DLC 103(1)  Components: Lecture
Digital Advanced
Introduces students to the principles of computer and network security, basic troubleshooting techniques, and how to use computers to enhance life and work. Pre-requisite: DLC 1012 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

DLT Dental Laboratory Technology

DLT 262(8)  Components: Lecture
Advanced Specialty Laboratory Techniques
Students fabricate dental prostheses at a more advanced level in at least one of the following specialty areas: complete denture prosthodontics, dental ceramics, fixed prosthodontics (crown and bridge), orthodontic appliances, or removable partial denture prosthodontics. Emphasis is placed on incorporating productivity, flow time, and quality requirements. Laboratory experience is provided in the classroom or selected externships in local dental laboratories. Pre-requisite: DLT 261. Lecture: 2 credits (30 contact hours). Laboratory: 6 credits (270 contact hours).
Components: Laboratory, Lecture

DLC Digital Literacy

DLC 101(3)  Components: Lecture
Digital Literacy
Introduces the central components of digital literacy including computer operation for information gathering, communication, and living/working online. Presents how to use productivity software such as word processors, spreadsheets, databases, and presentation software. Exploration of the legal and ethical environment concerning computer technology. Addresses issues related to computers security, troubleshooting, and methods for enhancing work and life. Pre-requisite: RDG 20 or Consent of Instructor. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Digital Literacy, Course Also Offered in Modules

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Components: Lecture

DLC 103(1)  Components: Lecture
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Components: Lecture

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Components: Laboratory, Lecture

DMI Radiologic Technology

DMI 102(1)  Components: Lecture
Medical Terminology for Radiography
Provides an introduction to the origins of medical terminology. Introduces a word-building system and discusses medical abbreviations and symbols. Introduces an orientation to understanding radiographic orders and diagnostic report interpretation and related terminology. Pre-requisite: Admission to the radiography program. Lecture: 1 credit hour (15 contact hours).
Components: Lecture
Attributes: Technical

DMI 106(3)  Components: Lecture
Patient Care and Ethics for Radiographers
Provides the concepts of optimal patient care, including consideration for the physical and psychological needs of the patient and family. Describes routine and emergency patient care procedures, as well as infection control procedures using standard precautions. Identifies the role of the radiographer in patient education. Provides a foundation in ethics and law related to the practice of medical imaging. Examines a variety of ethical and legal issues found in clinical practice. Pre-requisite: Admission to the radiography program. Lecture: 2 credit hours (30 contact hours) Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMI 108(4)  Components: Lecture
Radiographic Positioning & Procedures I
Provides the knowledge base necessary to perform imaging procedures of the upper extremities and shoulder girdle, lower extremities and pelvic girdle, bony thorax, chest, upper airway, and plain abdomen. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: BIO 137. Lecture: 2 credit hours (30 contact hours). Lab: 2 credit hours (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMI 110(1)  Components: Lecture
Radiography Practicum I
Designed to sequentially develop, apply, critical analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary system. Pre-requisite: DMI 110. Practicum: 2 credit hours (190 contact hours).
Components: Practicum
Attributes: Technical

DMI 120(2)  Components: Lecture
Radiography Practicum II
Provides the knowledge base necessary to perform imaging procedures of the spine, cranial, facial bones, paranasal sinuses, upper gastrointestinal, lower gastrointestinal, and urinary system. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: DMI 106. Lecture: 2 credit hours (30 contact hours). Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMI 128(3)  Components: Lecture
Radiographic Positioning and Procedures III
Provides the knowledge base necessary to perform imaging procedures of the spine, cranial, facial bones, paranasal sinuses, upper gastrointestinal, lower gastrointestinal, and urinary system. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: DMI 106. Lecture: 2 credit hours (30 contact hours). Lab: 1 credit hour (30 contact hours).
Components: Practicum
Attributes: Technical

DMI 130(2)  Components: Lecture
Radiography Practicum III
Provides the knowledge base necessary to perform imaging procedures of the spine, cranial, facial bones, paranasal sinuses, upper gastrointestinal, lower gastrointestinal, and urinary system. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: DMI 106. Practicum: 2 credit hours (180 contact hours).
Components: Practicum
Attributes: Technical
DMS 116(6) 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, pathophysiological 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. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; CPR certification; NAA 100 or equivalent. Lecture/Lab: 6.0 credits (150 contact hours).

Components: Lecture Attributes: Technical

DMS 119(6) Course ID:004393

Department Consent Required

Ultrasonic Physics and Instrumentation

Consists of lectures and related laboratory exercises covering the areas of ultrasonic propagation principles, transducer parameters, interactive properties of ultrasound with human tissue, possible biologic effects, basic equipment types, instrumentation and quality control procedures, hemodynamics and basic Doppler. Pre-requisite: Consent of Program Coordinator. Lecture: 6.0 credits (90 contact hours).

Components: Lecture Attributes: Technical

DMS 126(3 - 4) Course ID:004394

Clinical Education I

Includes observation of all clinical duties performed in the ultrasound department. Covers basic instruction and scanning experience in abdomen, superficial structures, non-cardiac chest, embryo/fetus, gravid and non-gravid pelvic structures with basic competencies to be performed. Pre-requisite: Minimum grade of “C” in (DMS 109 and DMS 115) or (DMS 111 and DMS 116). Clinical: 3.0 - 4.0 credits (180 - 240 contact hours).

Components: Clinical Attributes: Technical

DMS 146(12) Course ID:017115

Cardiac Techniques I

Provides a study of normal cardiovascular anatomy and physiology including hemodynamic concepts, electrophysiology, and the conduction system. Includes patient care and medical and legal issues of sonographers. Presents pathophysiologic conditions, signs and symptoms of valvular heart disease, ischemic cardiac disease, and infective endocarditis, and prosthetic heart valves and discussion of the various cardiac testing procedures used in diagnosis. Includes a laboratory component to develop basic skills in 2D, M-mode, Doppler scanning techniques and standard measurements. Pre-requisite: Admission to Diagnostic Sonography program; Digital Literacy; NAA 100 or equivalent. Lecture: 8 credits (120 contact hours). Lab: 4 credits (180 contact hours).

Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

DMS 147(1) Course ID:017116

Cardiac Clinical Education I

Introduces the student to the clinical environment including the function and organization of the echocardiography department and the various testing procedures utilized in the diagnosis of cardiac diseases. Presents opportunities to observe and model the appropriate professional behaviors and communication expected in the clinical setting and initiates the performance of basic scan skills under the supervision of appropriately credentialed cardiac sonographers. Pre-requisite: Admission to the Diagnostic Medical Sonography program; Digital Literacy; NAA 100 or equivalent; CPR certification. Co-requisite: DMS 146. Clinical: 1 credit hour (60 contact hours).

Components: Clinical Attributes: Technical
DMS 199(1) Course ID:005936
Online Physics Review
Includes a review of basic ultrasound physics, transducers, bioeffects, artifacts, quality assurance and principles of Doppler techniques. Pre-requisite: DMS 119 or 121 with minimum "C" grade or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DMS 201(11) Course ID:005937
Online Abdomen Review
Provides a review of abdominal sonography to prepare the student for the related registry. Includes an overview of basic ultrasound physics, transducers, sonographic equipment, the use of medical ultrasonic examination, the performance of a complete abdominal ultrasound examination, basic scanning skills, and an introduction to the world of ultrasonography. Pre-requisite: DMS 109 or 111 with minimum "C" grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DMS 202(1) Course ID:005938
Online OB/GYN Review
Provides a review of related clinical signs and symptoms, laboratory tests, and normal/abnormal sonographic patterns in preparation for the related OB/GYN registry. Pre-requisite: DMS 115 or DMS 116 with minimum "C" grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DMS 207(7) Course ID:017117
Cardiac Techniques II
The course presents content on additional cardiovascular pathologies including acquired and congenital heart diseases. Covers the relationship of echocardiography to patient history and physical examination, including the clinical chart, indications for exam, and differential diagnoses. Discusses cardiovascular pharmacology, their potential effects on echocardiographic findings, and provocative agents and maneuvers. Includes a laboratory component to further develop scan skills and practice more advanced evaluations of Color Flow, Pulsed and Continuous wave Doppler findings, valvular stenosis severity, ventricular function, and abnormal cardiovascular hemodynamics and flow patterns and correlating Doppler findings. Pre-requisite: DMS 146 with a minimum "C" grade or Consent of Program Coordinator. Lecture: 4 credit hours (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

DMS 215(6) Course ID:005944
Cardiac Sonography III
Covers the basic sonographic approach to the heart and its circulatory system, including the physiology of the heart, cardiac pathologies, and normal and abnormal sonographic patterns seen in the heart. Lecture: 4 credit hours (60 contact hours).
Components: Lecture

DMS 230(5 - 8) Course ID:004396
Clinical Education II
Includes interaction in all clinical duties performed in all ultrasound departments. Covers abdominal, superficial structures, thoracic, cardiac, thoraco-abdominal, and essential ultrasound structures with an emphasis on the interpretation of basic and advanced competencies to be performed. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; Minimum level of "C" in BIO 135 or (BIO 137 and BIO 139) and (PHY 151 or PHY 152 or PHY 171) and MAT 150. Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).
Components: Clinical
Attributes: Technical

DMS 240(5 - 8) Course ID:004398
Clinical Education III
Continues the clinical experience by student assuming a more active role in assisting the supervising Sonographer and performing sonographic duties under direct supervision or the direction of progress dependent upon the student's ability to comprehend and perform assignments. Pre-requisite: DMS 230 with Minimum "C" grade. Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).
Components: Clinical
Attributes: Technical

DMS 247(2) Course ID:017120
Cardiac Clinical Education II
Includes observation of all clinical duties in the echocardiographic department including routine, stress, transesophageal echocardiography (TEE), and 3D echocardiography as possible. Emphasizes basic clinical scanning experience under the supervision of a credentialed Cardiac Sonographer. Pre-requisite: DMS 147 with a grade of Pass or Consent of Program Coordinator. Co-requisite: DMS 207. Clinical: 2 credit hours (120 contact hours).
Components: Clinical
Attributes: Technical

DMS 248(6) Course ID:017121
Cardiac Clinical Education III
Requires progressive clinical experience with student assuming a more active role in assisting the supervising Cardiac Sonographer with the rate of progress dependent upon the student's ability. Emphasizes increased participation in performance of the complete adult echocardiographic examination including scanning competencies, and participation in routine procedures including transesophageal echocardiography (TEE) and stress echocardiographic studies. Pre-requisite: DMS 247 with minimum "C" grade or Consent of Program Coordinator. Clinical: 6 credit hours (360 contact hours).
Components: Clinical
Attributes: Technical

DMS 255(6) Course ID:005939
Vascular Technology
Presents normal/abnormal sectional anatomy, hemodynamics, patient assessment and diagnostic testing related to vascular technology. Includes applications of phathophysiologic 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 physiology including blood flow characteristics and pressures/flow/velocity relationships. Pre-requisite: Minimum "C" grade in (DMS 119 and DMS 240) or Consent of Program Coordinator. Lecture/Lab: 6.0 credits (120 contact hours).
Components: Lecture
Attributes: Technical

DPT 100(2) Course ID:016604
3D Printing Technology Fundamentals
Provides an introduction to the world of three-dimensional (3D) printing or additive manufacturing (AM) and its applications. Introduces topics including 3D printing technologies, basic use of 3D applications, programming, systems, 3D-scanning, and utility software. Pre-requisite or Co-requisite: CIT 105, demonstration of digital literacy competency by exam or certificate, or other approved course with digital literacy status. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DPT 150(3) Course ID:016605
Introduction to Engineering Mechanics for 3D Printing
Provides an introduction to simplified engineering mechanical principles as they apply to 3D printing, or additive manufacturing, designs and products. Requires students to apply concepts related to simple force and stress analysis, material property selection, and deformation to their designs for the purpose of improving functional performance and overall printing success. Explores finishing and post processing techniques to enhance the final appearance and marketability of their printed work. Pre-requisite: DPT 100 or DPT 102. Lecture: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

DPT 280(1) Course ID:016606
Special Projects for 3D Printing, Level I
Aids students to gain intermediate level experience in their prospective fields through projects and tasks assigned by the instructor and based on applications the student may one day experience as a professional. Focuses on various assignments and curriculum as determined by the program instructor. Pre-requisite: DPT 100 or DPT 102. Lecture/Lab: 1.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

ECO Economics

ECO 101(3) Course ID:000445
Contemporary Economic Issues
Covers contemporary economic issues such as inflation, poverty and affluence, globalization, and environmental pollution. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 150(3) Course ID:006703
Introduction to Global Economics
Covers the causes and issues of global economic interdependence, with particular emphasis on cross-cultural implications of globalization. Included global economic issues such as economic development, global economic governance, changing demographics, health care, world poverty, changing patterns of food production, global energy use, and the economic consequences of global environmental issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

ECO 201(3) Course ID:000447
Principles of Microeconomics
Covers the allocation of scarce resources from the viewpoint of individual economic units. Topics include supply and demand, elasticity, costs, and markets. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 202(3) Course ID:000449
Principles of Macroeconomics
Covers how society's needs are satisfied with the limited resources available. Includes issues such as inflation, unemployment, economic growth, globalization, and fiscal and monetary policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules
EDC 1011(1) Course ID:005925
How Markets Work
Covers the foundations of contemporary economic issues emphasizing scarcity, choice, benefits, costs, and supply and demand. Lecture: 1 credit (15 contact hours).
Components: Lecture
EDC 1012(1) Course ID:005926
Markets and Macroeconomic Goals
Covers contemporary economic issues such as price indices, efficiency, equity, poverty and welfare. Pre-requisite: ECO 1011. Lecture: 1 credit (15 contact hours).
Components: Lecture
EDC 1013(1) Course ID:005927
Markets and Regulation
Covers contemporary economic issues such as externalities, market failure, globalization, and environmental pollution. Pre-requisite: ECO 1012. Lecture: 1 credit (15 contact hours).
Components: Lecture
EDC 2011(0.75) Course ID:005928
The Role of Economics
Covers the allocation of scarce resources from the viewpoint of individual economic units. Includes supply and demand and government intervention in markets. Pre-requisite: ECO 1012. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
EDC 2012(0.75) Course ID:005929
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. Pre-requisite: ECO 2011. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
EDC 2013(0.75) Course ID:005930
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. Pre-requisite: ECO 2012. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
EDC 2014(0.75) Course ID:005931
Firm Behavior and Market Structures
Covers the allocation of scarce resources from the viewpoint of individual economic units. Includes competitive and non-competitive markets. Pre-requisite: ECO 2013. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
EDC 2021(0.75) Course ID:005932
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
EDC 2022(0.75) Course ID:005933
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. Pre-requisite: ECO 2021. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
EDC 2023(0.75) Course ID:005934
Stabilization Tools
Covers how society’s needs are satisfied with the limited resources available. Includes economic growth, fiscal policy, and monetary policy. Pre-requisite: ECO 2022. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
EDC 2024(0.75) Course ID:005935
The International Economy
Covers how society’s needs are satisfied with the limited resources available. Includes international trade and international finance. Pre-requisite: ECO 2023. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
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. Pre-requisite: EDP 202 and EDU 201. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
EDP 202(3) Course ID:000452
Human Development and Learning
Prepares students for instruction of learners with diverse cultural, ethnic, and developmental needs. Requires field experience of 15 clock hours in instructor-approved educational agencies. Pre-requisite: PSY 100 or EDP 201. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
EDP 203(3) Course ID:000453
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. Pre-requisite: EDP 202 with an earned grade of C or higher. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
EDP 260(3) Course ID:016282
Motivation and Classroom Management
Prepares students to motivate and engage students in learning. Teaching strategies to support learning and behavior management. Requires field experience of a minimum of 15 clock hours in instructor-approved educational agencies. Pre-requisite: EDP 202. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
EDP 270(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 credits (45 contact hours).
Components: Lecture
Attributes: Technical
EDP 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. Pre-requisite: ENG 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
EDP 130(3) Course ID:000451
Introduction to American 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 credits (45 contact hours).
Components: Lecture
Attributes: Technical
EDU 240(3) Course ID:002279
Elementary and Middle School Literature
Surveys both traditional and modern literature for children and adolescents. Emphasizes selection, evaluation, story telling, 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. Pre-requisite: ENG 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Digital Literacy
EDU 270(3) Course ID:004551
Elementary School Literature
Surveys traditional and modern literature for elementary school children. Emphasizes selection, evaluation, story telling, and the 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. Pre-requisite: ENG 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
EET 150(2) Course ID:001355
Attributes: Technical
Components: Lecture
Lecture: 1.0 credit (15 contact hours).
Integrates prior learning outcomes into a single integrated Technology degree program and all of its concentrations. Serves as the capstone course for the Electrical Technology Capstone
Components: Lecture/Lab: 5.0 credits (45 contact hours
Pre-requisite: MAT 065 or equivalent placement level or consent of laboratory exercises and classroom lecture. Pre-requisite: [ELT 110 or EET 119] with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 150. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

EET 151(1) Course ID:0001356
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.
Pre-requisite: [ELT 110 or EET 119] with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 150. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

EET 154(2) Course ID:0001358
Electrical Construction I
Involves the study of materials and procedures used in construction wiring. Co-requisite: EET 155. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

EET 155(2) Course ID:0001359
Electrical Construction I Lab
Designed to give hands-on experiences with electrical materials and equipment in construction wiring. Co-requisite: EET 154. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 198(2) Course ID:0001361
Instructor Consent Required
Practicum
The practicum provides supervised-on-the-job work experience related to the student's educational objectives. Students participating in the Practicum Education program do not receive compensation for their work. Pre-requisite: Consent of Instructor. Practicum: 2 credits (150 contact hours).
Components: Practicum
Attributes: Technical

EET 253(2) Course ID:0001412
Electrical Construction II Lab
Provides hands-on experiences needed to work in commercial and industrial construction wiring. Co-requisite: EET 252. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 254(3) Course ID:0001413
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. Co-requisite: EET 255. Lecture: 3 credits (345 contact hours).
Components: Lecture
Attributes: Technical

EET 255(4) Course ID:0001414
Electrical Construction Lab
Designed to give hands-on experiences with electrical materials and equipment in commercial and industrial construction wiring. Co-requisite: EET 254. Laboratory: 4 credits (120 contact hours).
Components: Laboratory
Attributes: Technical

EET 264(2) Course ID:0001419
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. Pre-requisite: [(ENGT 110 and ENGT 114) with a minimum grade of C] or consent of Electrical Technology program advisor(s). Co-requisite: EET 265. Lecture: 2 credits (60 contact hours).
Components: Lecture
Attributes: Technical

EET 265(2) Course ID:0001420
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. Pre-requisite: [(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Co-requisite: EET 264. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 266(3) Course ID:0001421
Rotating Machinery and Transformers
Focuses on the principles of operation and application of single-phase and three-phase AC transformers to include: analysis of voltage, current and power parameters and connection configurations. Given an in-depth study of direct and alternating current rotating machinery that produces and utilizes electrical energy. Pre-requisite: [ELT 110 and ELT 114 with a minimum grade of C] or consent of Electrical Technology program advisor(s). Co-requisite: EET 267. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EET 267(3) Course ID:0001422
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. Pre-requisite: [(ELT 110 or EET 119) with a minimum grade of "C"] or consent of Electrical Technology program advisor(s). Co-requisite: EET 266. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
EET 268(3)  Course ID:001423
Instructor Consent Required
Rotating Machinery Electrical Motor Controls I
This course focuses on the construction, operation and maintenance of DC motors and generators and AC motors and alternators. This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: [EET 110 or EET 119] with a minimum grade of "C" or consent of Electrical Technology program advisor(s).
Co-requisite: EET 268. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EET 276(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 basic construction, operation and maintenance of AC motors and alternators, and DC motors and generators. Safety and electrical lockouts are included. Pre-requisite: [EET 110 or EET 119] with a minimum grade of "C" or consent of Electrical Technology program advisor(s).
Co-requisite: EET 268. Laboratory: 4.0 credits (120 contact hours). Lab: 4.0 credits (120 contact hours).
Components: Laboratory Attributes: Technical

EET 271(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. Pre-requisite: [EET 110 or EET 119] with a minimum grade of "C" or consent of Electrical Technology program advisor(s).
Co-requisite: EET 271. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

EET 272(2)  Course ID:001426
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. Pre-requisite: EET 270. Co-requisite: EET 272. Co-requisite: EET 270. Lab: 2.0 credit (60 contact hours).
Components: Lecture Attributes: Technical

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. Pre-requisite: EET 270. Co-requisite: EET 272. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

EET 274(3)  Course ID:001429
Electrical Motor Controls
This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lockouts are also included. This course provides advanced study of motor controls in industry. The course addresses solid state relays, hall effect sensors, proximity detectors and photo detectors. Tasks include sketching, installing and troubleshooting the following: three phase controls, variable speed drives using relays as well as solid state devices, and introduction to programmable controls. Pre-requisite: [EET 110 or EET 119] with a minimum grade of "C" or consent of Electrical Technology program advisor(s).
Co-requisite: EET 275. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EET 275(4)  Course ID:001430
Electrical Motor Controls Lab
Provides practical experience in the use of control devices and their applications in industry today. Safety and electrical lockouts are included. Provides hands-on experience in advanced studies in electrical controls used in industry including three-phase motor control and variable speed control using solid state devices and programmable controls. Pre-requisite: [EET 110 or EET 119] with a minimum grade of "C" or consent of Electrical Technology program advisor(s).
Co-requisite: EET 274. Lab: 4.0 credits (120 contact hours).
Components: Laboratory Attributes: Technical

EET 276(2)  Course ID:001431
Programmable Logic Controllers
Underlying principles and applications of programmable logic controllers including installation, logic fundamentals, and numbering systems; basic programming of inputs, outputs, timers, and counters, comparators, basic data manipulation, and safety circuits of industrial PLCs. Pre-requisite: [EET 110 or EET 119] with a minimum grade of "C" and [EET 270 and EET 272] or EET 268 or EET 274 with a minimum grade of "C" or consent of Electrical Technology program advisor(s).
Co-requisite: EET 277. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

EET 277(2)  Course ID:001432
Programmable Logic Controllers Lab
Provides practical applications of programmable logic controllers including installation, logic fundamentals, and numbering systems; basic programming of inputs, outputs, timers, and counters, comparators, basic data manipulation, and safety circuits of industrial PLCs. Pre-requisite: [EET 110 or EET 119] with a minimum grade of "C" and [EET 269 or (EET 271 and EET 273)] or EET 275 with a minimum grade of "C" or consent of Electrical Technology program advisor(s).
Co-requisite: EET 276. Lab: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical

EET 280(4)  Course ID:001472
Multi-Platform Programmable Logic Controllers
Introduces students to multiple platforms of programmable logic controllers. Prepares students to wire, communicate with, program and troubleshoot multiple brands of PLCs. Introduces students to basic programming of inputs, outputs, internal relay, timers, counters, comparator, math and data manipulation instructions. Provides hands on lab application of multiple platforms of programmable logic controllers found in industry. Pre-requisite: EET 276/277 Programmable Logic Controllers. Integrated Lecture/Lab: 4 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

EET 281(1)  Course ID:001435
Practicum
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 1 credit (45 contact hours).
Components: Laboratory Attributes: Technical

EET 283(2)  Course ID:001436
Instructor Consent Required
Special Problems II
A course designed for the student who has demonstrated special special needs. Pre-requisite: Permission of Instructor. Laboratory: 2 credits (90 contact hours).
Components: Laboratory Attributes: Technical

EET 285(3)  Course ID:001437
Special Problems III
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 3 credits (135 contact hours).
Components: Laboratory Attributes: Technical

EET 286(2)  Course ID:004627
Programmable Logic Controllers II
Focuses on sequencer instructions, shift registers, process control instructions, networking, communications, human to machine interfaces, and troubleshooting techniques used with programmable logic controllers. Pre-requisite: [EET 276 and EET 277] with a minimum grade of C or consent of Electrical Technology program advisor(s).
Co-requisite: EET 287. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

EET 287(2)  Course ID:004628
Programmable Logic Controllers II Lab
Provides hands on lab applications dealing with sequencers, shift registers, networks, communication software, human to machine interfaces, analog devices, and troubleshooting. Pre-requisite: [EET 276 and EET 277] with a minimum grade of C or consent of Electrical Technology program advisor(s). Co-requisite: EET 286. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

EET 290(4)  Course ID:001743
Troubleshooting Industrial Controls and Motors
Introduces students to basic electrical troubleshooting concepts pertinent to the electrical technology industry. Provides an in-depth study of electrical troubleshooting using schematics, wiring diagrams, digital multi-meters, programmable logic controllers, and Megohmmeters. Students will learn how to troubleshoot common electrical faults using a multimeter. This course focuses primarily on providing students with an overview of common electrical faults and how to pinpoint them using a programmable logic controllers Pre-requisite: EET 276 Programmable Logic Controllers AND EET 277 Programmable Logic Controllers Lab. Integrated Lecture/Lab: 4.0 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

EET 295(4)  Course ID:001746
Alternative Energy Photovoltaic and Wind Electrical Generations Systems
An introduction to the methods and equipment necessary for the installation and maintenances of photovoltaic and wind electrical generation system. This course also covers the standards and requirements set forth by the National Electric Code and the National Association of Certified Energy Practitioners for alternative energy generation systems. Pre-requisite: ELT110 or EET119 and EET154 and EET155 and EET252 and EET253 or EET254 and EET255 and EET250 or electrical experience and consent of instructor. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

EET 298(1 - 8)  Course ID:001438
Practicum
The Practicum provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Practicum do not receive compensation. (This course may be taken for 1 - 8 credits)
Components: Practicum Attributes: Technical

EET 299(1 - 8)  Course ID:001439
Instructor Consent Required
Cooperative Education Program
Co-op provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Co-operative Education program receive compensation for their work. (This course may be taken for 1 - 8 credits.) Pre-requisite: Consent of Instructor
Components: Co-Op Attributes: Technical
**EFM Economics**

**EFM 100(3) Course ID:001440**

**Personal Financial Management**

Successful completion of this course will result in an understanding of the role of the U.S. and how an individual can function successfully in the U.S. economic system. Students will explore the various aspects involved in being responsible consumers, the importance of personal financial planning, the relationship between employment opportunities and financial security, and other aspects of becoming successful and productive workers, consumers, and citizens. Lecture: 3 credits (45 contact hours)

Components: Lecture
Attributes: Other, Enrichment Course Other

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**EGR Engineering**

**EGR 101(1) Course ID:009198**

**Engineering Exploration I**

Engineering Exploration I introduces students to the engineering and computer science professions, College of Engineering degree programs, and opportunities for career path exploration. Topics and assignments include study skills, team development, ethics, problem solving and basic engineering tools for modeling, analysis and visualization. Open to students enrolled in the College of Engineering. Students who received credit for EGR 112 are not eligible for EGR 101. Pre-requisites: Enrolled in the College of Engineering or MAACT at least 23 or equivalent. Students who received credit for EGR 112 are not eligible for EGR 101. Lecture: 1.0 credit (30 contact hours)

Components: Lecture
Attributes: University Course (University of Kentucky)

**EGY Energy Technologies**

**EGY 120(4) Course ID:006821**

**Outside Plant Communications**

Introduces students to fiber optic communication systems and up-to-date fiber techniques including how to design, install, test and maintain fiber optic single mode networks. Emphasizes Single Mode fiber optic installation with the associated international standards, theory, and practices. Prepares the student to work with fiber optic splicing, testing and troubleshooting equipment that is found in the workplace. Pre-requisite: (ELT 110 and ETT 110) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours)

Components: Laboratory, Lecture
Attributes: Technical

**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, substation and switchyard equipment and transmission structures. Emphasizes electrical, underground, line maintenance and transmission safety. Pre-requisite: (ELT 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
Attributes: Technical

**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 and usage of electrical energy usage in commercial buildings with the understanding that the electrical energy technician will install and maintain efficient electrical controls and equipment. Prepares students to assist in the design of efficient electrical energy systems under the supervision of a Certified Energy Manager or licensed Professional Engineer. Pre-requisite: (ELT 110 and EET 154 and EET 155 and EET 252 and EET 253 and EET 250) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours)

Components: Laboratory, Lecture
Attributes: Technical

**EGY 230(4) Course ID:006824**

**Solar / Photovoltaic Technologies**

Covers the design and installation of grid connected, stand-alone, and hybrid photovoltaic (PV) systems, and involves hands-on work with PV systems and equipment. Intended for electrical technology students, apprentices, contractors, electricians, and other practitioners, with an overall goal of developing “system knowledgeable” professionals to help ensure the safety and quality of PV system installations. Pre-requisite: (ELT 110 and EET 154 and EET 155 and EET 252 and EET 253 and EET 250) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours)

Components: Laboratory, Lecture
Attributes: Technical

**EGY 240(4) Course ID:006825**

**Energy Efficiency and Analysis**

Discusses the basic principles of how energy flows into and out of a residential building, using the “House as a System” approach. Develops the skills needed to perform a home energy audit. Gives students hands-on experiences with a blower door, thermal imaging camera as well as other auditing tools. Pre-requisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours)

Components: Laboratory, Lecture
Attributes: Technical

**EGY 250(4) Course ID:006826**

**Wind/ Turbine Technologies**

Introduces the theory and practices of wind power and how it is used and connected as a renewable energy source for the home, farm and business. Pre-requisite: ELT110 or consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours)

Components: Laboratory, Lecture
Attributes: Technical

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**ELT Engineering & Electronics Technology**

**ELT 102(2) Course ID:000526**

**Blueprint Reading**

A comprehensive study of current drafting standards and blueprint reading techniques are included. Topics include standard lines and symbols, sketching techniques, orthographic projection, auxiliary views, detail and assembly drawings, dimensions, tolerances, sectional views, title block information, machining, specifications, and specialized forms of engineering drawings. Lecture: 2.0 (30 contact hours)

Components: Lecture Course Equivalents: BRX 120
Attributes: Technical

**ELT 103(3) Course ID:0005443**

**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. Pre-requisite or Co-requisite: Current Placement Scores for College Level Quantitative Reasoning or Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours)

Components: Lecture
Attributes: Technical

**ELT 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.

Pre-requisite: (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: Technical

**ELT 111(4S) 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. Pre-requisite: (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: Technical

**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. Pre-requisite: Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours)

Components: Laboratory, Lecture
Attributes: Technical

**ELT 120(3) Course ID:004637**

**Digital I**

Introduces theory and application of digital logic methods. Includes Boolean algebra, combinatorial logic theory, sequential circuits, number systems and codes, and design and troubleshooting of digital logic circuits. Pre-requisite: (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
Attributes: Technical

**ELT 122(3) Course ID:000573**

**Mechanical Power Transmission Systems**

Introduces industrial mechanical systems and devices, which are commonly associated with Millwright and Industrial Maintenance functions. Includes topics of belt drives, gear drives, chain drives, couplings, packings/seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Co-requisite: ELT 124. Lecture: 3.0 credit (45 contact hours)

Components: Lecture
Attributes: Technical

**ELT 124(1) Course ID:000578**

**Mechanical Power Transmission Systems Lab**

Introduces mechanical systems and devices common to the Millwright and Industrial Maintenance trades. Includes topics of belt drives, gear drives, chain drives, couplings, packings/seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Co-requisite: ELT 122. Lab: 1.0 credit (30 contact hours)

Components: Laboratory
Attributes: Technical

**ELT 201(4) Course ID:000603**

**Statics and Strength of Materials**

Introduces 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. Pre-requisite: (MAT 150 and MAT 155 or MAT 110) or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (30 contact hours)

Components: Laboratory, Lecture
Attributes: Technical
ELT 210(4) Course ID:004639

Components: Laboratory, Lecture

Pre-requisite: ELT 110 with a grade of C or greater) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

Attributes: Course Also Offered in Modules, Technical

ELT 214(4) Course ID:004642

Components: Laboratory, Lecture

Attributes: Technical

ELT 220(3) Course ID:004645

Digital II

Provides 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. Pre-requisite: ELT 210 with a grade of C or greater) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

Attributes: Course Also Offered in Modules, Technical

ELT 222(3) Course ID:004647

Instructor Consent Required

Mechanics of Telephony

Covers history of the telephone and regulations that impact the telecommunications industry, analog and digital transmission, modulation and the evolution of wireless and digital services. Utilizes the graduated height method for developing climbing skills and confidence. Pre-requisite: Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

ELT 224(3) Course ID:004648

Instructor Consent Required

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. Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

ELT 232(3) Course ID:000623

Computer Software Maintenance

Includes maintenance of the personal computer with an emphasis on installation, upgrading, and configuration of the operating system. Covers memory management, boot sequences, printing subsystem, application software and networking with troubleshooting as a main focal point including viruses. When combined with ELT 234, this course will help prepare students to take CompTIA A+ certification tests. Pre-requisite: (Computer literacy course or demonstrate competency) or consent of instructor. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

ELT 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. Pre-requisite: (Computer literacy course or demonstrate competency) or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

ELT 240(6) Course ID:004650

Communications Electronics

Provides the theory of AM and FM, RF communications, transmission, reception, multiplexing, and modern data communications. Pre-requisite: (ELT 220 and ELT 214) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

ELT 244(4) Course ID:000644

Instructor Consent Required

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. Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

ELT 250(4) 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. Pre-requisite: ELT 244 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

ELT 260(5) Course ID:004652

Instructor Consent Required

Robotics 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. Pre-requisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture

Attributes: Course Also Offered in Modules, Technical

ELT 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. Pre-requisite: (ELT 201 and PHY 211) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).

Components: Lecture

Attributes: Technical

ELT 265(3) Course ID:000697

Applied Fluid Power

Covers the fundamental types of hydraulic and pneumatic devices and circuits used in industry. Includes basic fluid mechanics, industrial hydraulic components, pneumatic components, circuit design and analysis, electrical control of fluid power circuits, and fluid power maintenance and safety. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

ELT 280(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

Attributes: Technical

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 twice or to a maximum of four credit hours. Pre-requisite: Consent of instructor. Lecture: 1.0-4.0 credit hours (15- 60 contact hours). Laboratory: 0-3.0 credit hours (0-45 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

ELT 295(1 - 2) Course ID:000746

Instructor Consent Required

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. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 2.0 credits (15- 30 contact hours). Laboratory: 1.0 - 2.0 (30-60 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

ELT 1101(1) Course ID:005638

Basic Electricity

Introduces basic DC circuits, specifically safety, basic test equipment, electrical resistance and Ohm's law. Pre-requisite: (MAT 065 or equivalent placement level) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).

Components: Laboratory, Lecture

ELT 1102(1) Course ID:005639

Series and Parallel Circuits

Introduces basic DC circuits, specifically series and parallel circuits. Emphasizes design, construction, and troubleshooting of simple DC circuits in laboratory exercises. Pre-requisite: (ELT 1101 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).

Components: Laboratory, Lecture

ELT 1103(1) Course ID:005640

Introductory Circuit Analysis

Introduces basic DC circuits, specifically series-parallel circuit analysis techniques. Emphasizes design, construction, and troubleshooting of simple DC circuits in laboratory exercises. Pre-requisite: (ELT 1102 with a grade of C or better) or Consent of Instructor: Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).

Components: Laboratory, Lecture
ELT 1104(1) Course ID:005641
Magnetism and Alternating Current
Introduces basic AC circuits, specifically introductory magnetism and basic AC theory. Emphasizes design, construction, and troubleshooting of simple AC circuits in laboratory exercises. Pre-requisite: ELT 1103 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1105(1) Course ID:005642
Capacitance and Inductance
Introduces basic AC circuits, specifically capacitance, inductance and transformer principles. Emphasizes design, construction, and troubleshooting of simple AC circuits in laboratory exercises. Pre-requisite: (ELT 1104 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1201(1) Course ID:005648
Instructor Consent Required
Digital Basics
Introduces basic digital circuits, specifically number systems and input/output functions of gates and circuits. Pre-requisite: Consent of Instructor. Lecture: 0.66 credits (10 contact hours). Lab: 0.34 credits (10 contact hours).
Components: Laboratory, Lecture

ELT 1202(1) Course ID:005649
Logic Circuit Design
Introduces design methods for basic digital circuits. Pre-requisite: (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. Pre-requisite: (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

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. Pre-requisite: CPR Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture Attributes: Technical, Allied Health

EMS 150(5) Course ID:016094
Electrocardiogram Technology
Designed for students wanting to work in doctor’s offices, hospitals, cardiac clinics, or anywhere electrocardiograms need to be performed. Integrates comprehensive knowledge of the anatomy of the heart including conduction pathways, circulatory system, and mechanical function. Presents the medical terminology, pathophysiology related to cardiac crisis, arrhythmia recognition and 12-lead interpretation. Pre-requisite: Reading, English, and Mathematics assessment exam scores above KCTCS developmental level or successful completion of the prescribed developmental courses. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (45 contact hours). Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Technical

EMS 200(4) Course ID:007304
Introduction to Paramedicine
Integrates comprehensive knowledge of EMS Systems including: safety and wellness, communications, medical/legal issues, life span parameters, public health, medical terminology, pathophysiology, anatomy and physiology, 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 registration certification or validated National Registry status. Lecture: 3.0 credits (45 contact hours). Clinical: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

EMS 210(3) Course ID:007305
Emergency Pharmacology
Introduces students to the paramedic’s role and responsibilities of medication administration and the basic principles of pharmacology. Presents introductory core concepts of pharmacology including drug regulations, classifications, schedules, categories, delivery systems, calculations, and drug administration. Covers core concepts of emergency clinical pharmacology including major body systems, illnesses 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 Attributes: Technical

EMS 211(2) Course ID:007306
Fundamentals Lab
Encourages both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skillsets 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 Attributes: Technical

EMS 215(1) Course ID:007307
Clinical Experience I
Applies didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital and 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 Attributes: Technical

EMS 220(3) Course ID:007308
Cardiovascular Emergencies
Provides a detailed study of cardiovascular emergencies and the assessment and management of patients requiring critical intervention. Includes anatomy and physiology, medical terminology, pathophysiology related to cardiac crisis, arrhythmia recognition and 12-lead ECG for field diagnosis, as well as pharmacological and electrical interventions. Pre-requisite: EMS 210 and EMS 211. Co-requisite: EMS 221. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EMS 221(1) Course ID:007309
Cardiac and Trauma Lab
Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets and the addition of cardiovascular and trauma emergency patient care and management. Co-requisite: EMS 220 and EMS 230. Lab: 1.0 credit (45 contact hours).
Components: Laboratory Attributes: Technical

EMS 225(1) Course ID:007310
Clinical Experience II
Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program with a focus on the emergency department, operating room, and respiratory care. Pre-requisite: EMS 215. Clinical: 1.0 credit (60 contact hours).
Components: Clinical Attributes: Technical

EMS 230(4) Course ID:007311
Traumatic Emergencies
Presents the advanced concepts of out-of-hospital trauma care and critical thinking activities leading to formulation of a field impression and implementation of an appropriate treatment plan and scene management. Includes the kinesematics of trauma, assessment, resuscitation, management, monitoring, and transportation of trauma patients across the life span. Co-requisite: EMS 221. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

EMS 231(1) Course ID:007312
Medical Lab
Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets with a focus on application to medical emergencies. Co-requisite: EMS 240 and EMS 250. Lab: 1.0 credit (45 contact hours).
Components: Laboratory Attributes: Technical

EMS 235(2) Course ID:007313
Clinical Experience III
Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on the emergency department, obstetric unit, mental health facility, and pediatric units. Pre-requisite: EMS 225. Clinical: 2.0 credits (120 contact hours).
Components: Clinical Attributes: Technical
EMS 240(3) Course ID: 007314
Medical Emergencies I
Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies involving the respiratory system, nervous system, abdominal and gastrointestinal tracts, genitourinary and renal systems, gynecology, musculoskeletal system, and the eyes, ears, nose, and throat. Co-requisite: EMS 231. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EMS 250(3) Course ID: 007315
Medical Emergencies II
Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies encompassing infectious, infectious disease including HIV/AIDS, the endocrine system, psychiatric conditions, toxicology, and hematology. Pre-requisite: EMS 240. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EMS 260(3) Course ID: 007316
Special Populations
Provides the opportunity to develop special knowledge and skills necessary to assess and manage ill or injured patients across the human life span. Focuses on the acquisition of clinical knowledge and skills in diverse populations that include obstetrics, neonatology, pediatrics, geriatrics, and special challenge topics. Pre-requisite: EMS 250. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EMS 270(1) Course ID: 007317
EMS Operations
Provides knowledge necessary to safely manage multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism and disaster. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

EMS 275(1) Course ID: 007318
Seminar in Advanced Life Support (ALS)
Presents a comprehensive course encompassing advanced cardiac life support and pediatric advanced life support, or trauma life support, or other seminar course in relative subject matter such as medical emergencies or geriatric emergencies, to enhance the knowledge and skills acquired in the paramedic program. Addresses immediate life threatening conditions and critical interventions in a case study 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: Lecture
Attributes: Technical

EMS 285S(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. Practicum: 3.0 credits (270 contact hours).
Components: Practicum

EMS 285Z2(2 - 3) Course ID: 016631
Field Internship II
Provides the opportunity for continued application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite OR Co-requisite: EMS 285Z1. Laboratory: 1.0 credit (45 contact hours). Practicum 2.0 credits (180 contact hours).
Components: Laboratory, Practicum

ENC 090(3) Course ID: 000464
Foundations of College Writing I
Introduces students to writing as a process with an emphasis on paragraph-length assignments and writing in response to reading. Stresses basic conventions of standard English as 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: Remedial - English and Writing

ENC 091(3) Course ID: 000465
Foundations of College Writing II
Applies writing as a process with instruction in intermediate writing skills and technology. Stresses organization, idea development through critical thinking, and editorial improvement through multi-paragraph writings. Introduces basic research and documentation through writing in response to reading. Pre-requisite: Placement by KCTCS Assessment and Placement policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

ENC 0904(1) Course ID: 006749
Pathway to Writing
Provides practice in the writing process and stresses effective paragraphs with emphasis placed on writing in response to reading. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0903. Lecture: 1.0 credit (11.25 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENC 0911(0.75) Course ID: 006750
Intermediate Grammar
Introduces intermediate writing skills and editorial improvement, stressing the conventions of standard written English. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 090. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENC 0912(1) Course ID: 006751
Composition Strategies
Provides practice in the writing process, stressing organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0911. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENC 0913(0.25) Course ID: 006752
Introduction to Research
Introduces basic research and documentation through writing in response to reading. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0912. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

ENG 100(2) Course ID: 004574
English Workshop
Provides parallel and supplemental review of English skills needed for students with an English ACT of 18 or 19 or a Compass placement test score between 70-80 who are also enrolled in ENG 101. If these students withdraw from ENG 100, they must also withdraw from ENG 101. Credit cannot be received by special exam. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Other, Supplemental English/Writing

ENG 102(3) Course ID: 004575
English Composition
Encourages the development of skills and strategies that are fundamental to college writing. Pre-requisite: ENG 100. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

ENG 191(0.5) Course ID: 006740
Writing Paragraphs
Introduces the writing process with an emphasis on paragraph-length assignments. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0902. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENG 192(0.5) Course ID: 006741
Writing as Process
Introduces writing as a process. Stresses organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0912. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENG 193(0.5) Course ID: 006742
Writing and Revision
Introduces writing as a process with an emphasis on multi-paragraph assignments and writing in response to reading. Pre-requisite: Placement by KCTCS Assessment and Placement policy. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENG 194(1.0) Course ID: 006743
Writing Seminar
Provides practice in the writing process, stressing organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0912. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENG 195(1.5) Course ID: 006744
Writing and Research
Introduces the writing process and stresses organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0912. Lecture: 1.5 credits (22.5 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENG 196(2) Course ID: 006745
Writing and Research
Introduces the writing process and stresses organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0912. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENG 197(2.5) Course ID: 006746
Writing and Research
Introduces the writing process and stresses organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0912. Lecture: 2.5 credits (37.5 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENG 198(3) Course ID: 006747
Writing and Research
Introduces the writing process and stresses organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0912. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENG 199(3.75) Course ID: 006748
Writing and Research
Introduces the writing process with an emphasis on paragraph-length assignments. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0902. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENG 275(1) Course ID: 007317
EMS Operations
Provides knowledge necessary to safely manage multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism and disaster. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

ENG 275(1) Course ID: 007318
Seminar in Advanced Life Support (ALS)
Presents a comprehensive course encompassing advanced cardiac life support and pediatric advanced life support, or trauma life support, or other seminar course in relative subject matter such as medical emergencies or geriatric emergencies, to enhance the knowledge and skills acquired in the paramedic program. Addresses immediate life threatening conditions and critical interventions in a case study 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: Lecture
Attributes: Technical

ENG 275(5 - 6) Course ID: 007319
Field Internship & Summation
Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite OR Co-requisite: EMS 275. Lab: 1.0 credit (45 contact hours). Practicum: 4.0 - 5.0 credits (360 - 450 contact hours).
Components: Laboratory, Practicum
Attributes: Technical

ENG 285Z3(3) Course ID: 016630
Field Internship I
Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by
ENG 101(3)  Course ID:000467
Writing I
Focuses on academic writing. Provides instruction in drafting and revising essays that express ideas in Standard English, including reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Includes review of grammar, mechanics and usage. Notes: (a) credit not available by special examination; (b) English 101 and 102 may not be taken concurrently; (c) AP credit in the English Language and Composition category for ENG 101 awarded as indicated by AP scoring chart in current KCTCS catalog. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: WC - Written Communication, Course Also Offered in Modules

ENG 102(3)  Course ID:000468
Writing II
Emphasizes argumentative writing. Provides further instruction in drafting and systematically revising essays that express ideas in Standard English. Includes continued instruction in practice in reading critically, thinking logically, responding to texts, addressing specific audiences, and researching and documenting credible academic sources. NOTE: Credit is not available by special examination. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: WC - Written Communication, Course Also Offered in Modules

ENG 105(3)  Course ID:000469
Instructor Consent Required
Writing: An Accelerated Course
Combines the content of ENG 101 and ENG 102 in an intensive course emphasizing argumentation and library research and fulfills the writing/accessing information requirements. Pre-requisite: ACT English score of 25 or COMPASS English score of 95 AND ACT Reading score of 20 or COMPASS Reading score of 90. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: WC - Written Communication

ENG 107(3)  Course ID:006136
Writing Craft: Introduction to Imaginative Writing
An introduction to the genres and craft of imaginative writing, including fiction, nonfiction, and poetry. Students will study and practice writing in various modes through composition, peer critique, and research. Lecture and workshop. Offers credit for the UK Core requirement in Intellectual Inquiry in Arts & Creativity. Fulfills ENG pre-major requirement and provides ENG minor credit. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, University Course (University of Kentucky)

ENG 135(3)  Course ID:000275
Greek and Roman Mythology in Translation
Examines mythic literature, primarily Greek and Roman texts. Includes selections from primary works such as Works and Days, The Iliad, The Odyssey, Greek tragedy, The Metamorphoses and The Aeneid, with attention to their influence on later literature and culture. Pre-requisite: English ACT 18 and Reading ACT 20 OR completion of transitional reading and writing. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ENG 161(3)  Course ID:000470
Introduction to Literature
Introduces students to an analytical rather than historical approach to literature in order to deepen students' insight into the nature and purpose of literature. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 190(3)  Course ID:016988
Introduction to Dystopian Literature and Film
Analyzes literary texts and films from the Dystopian genre; examines the continuing relevance of the genre and its predictive nature; explores the social, political, and historical themes in literature and film from early works of the genre to contemporary; considers human nature in response to adversity; connects the genre to ongoing global concerns such as political systems, human rights, environmental change, and technological development. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 203(3)  Course ID:000472
Business Writing
Provides instruction and experience in writing for business, industry and government. Emphasizes clarity, conciseness, and effectiveness in preparing letters, memos, and reports for specific audiences. Pre-requisite: [ENG 101 and (ENG 102 or Consent of Instructor)] or ENG 105. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules

ENG 204(3)  Course ID:000474
Technical Writing
Provides instruction and experience in writing for science and technology. Emphasizes clarity, conciseness, and effectiveness in preparing instructions, proposals, and lab reports for specific audiences. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

ENG 207(3)  Course ID:000477
Instructor Consent Required
Creative Writing: (Subtitle Required)
Instructor Consent Required
Creative Writing: (Subtitle Required)
Provides instruction for beginners in the craft of writing, teaching students how to revise work in progress. Involves practice in aspects of craft and promotes experimentation with different forms, subjects, and approaches; outside reading provides models and inspiration. May be repeated under different subtitle to a maximum of six credit hours. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

ENG 208(3)  Course ID:006704
Creative Writing: Short Story Workshop
Provides students with guidance in the craft of writing short fiction, how to read critically and how to revise work in progress. Includes practice and experimentation with forms, subjects, and approaches to short stories. Outside reading provides models and inspiration. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

ENG 221(3)  Course ID:000479
Survey of English Literature I
Survey of English literature from the Middle Ages to the early 17th Century. Focuses on the literature in its social, political, and cultural contexts. Lecture: 3 credits (45 contact hours).
Pre-requisite: ENG 101.
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 222(3)  Course ID:000481
Survey of English Literature II
Survey of English literature from the late 17th Century through the present with emphasis on important writers and cultural backgrounds. Focuses on social, political, and cultural contexts. Lecture: 3 credits (45 contact hours).
Pre-requisite: ENG 101.
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 230(3)  Course ID:004530
Literature and Theme (subtitle required)
Introduces students to close reading and argumentative writing about literature, in relation to a significant theme. Examines selected texts revolving around a single theme, teaching students how to relate texts to contexts, to read closely, and to use basic literary terms and concepts. Considers student writing, particularly devising a thesis, crafting an argument, and learning how to use supporting evidence. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 231(3)  Course ID:006902
Literature and Genre (Subtitle required)
Explores one or two different literary forms or genres, i.e. the formal categories into which literary works are placed, including the conventions of each genre and related sub-genres. Considers student writing. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 232(3)  Course ID:000493
Literature and Place (Subtitle required)
Examines a number of selected literary texts with special attention to the author's connection to place and how the author's sense of place influences representations of experience. Considers student writing. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ENG 233(3)  Course ID:000494
Literature and Identities (Subtitle required)
Examines 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. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 251(3)  Course ID:000483
Survey of American Literature I
An analysis of significant texts in U.S. literature from the Colonial era to the Civil War focusing on social, political, and cultural contexts. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 252(3)  Course ID:000485
Survey of American Literature II
An analysis of significant texts in U.S. literature from the post-Civil War era to the present focusing on its social, political, and cultural contexts. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 261(3)  Course ID:000487
Survey of Western Literature from the Greeks Through the Renaissance
Studies the works of major Western authors from the Bible and Ancient Greek literature through the Renaissance. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 262(3)  Course ID:000489
Survey of Western Literature from 1660 to the Present
Studies the works by major Western authors from mid-17th century to the present. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and 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). Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ENG 270(3) Course ID:000491
The Old Testament as Literature
Surveys the major types of Old Testament literature in English translation. Examines historical backgrounds while emphasizing careful analysis of literary forms and technique. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 271(3) Course ID:000493
The New Testament as Literature
Surveys the major types of New Testament literature in English translation. Examines historical backgrounds while emphasizing careful analysis of literary forms and technique. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 282(1) Course ID:000495
Introduction to Film
Introduces the study of movies as a narrative art and a cultural document. Requires viewing of films outside of class. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: HUM 281
Attributes: AH - Arts and Humanities

ENG 282(3) Course ID:005429
International Film Studies
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: HUM 282
Attributes: Cultural Studies, AH - Arts and Humanities

ENG 2991 (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. Pre-requisite: ENG 101 or consent of instructor. Lecture: 1 - 3 credits (15-45 contact hours).
Components: Lecture
Attributes: Other

ENG 1011(0.75) Course ID:005787
Writing a Personal Essay
Focuses on academic writing. Provides instruction in reading critically, thinking logically, and responding to texts as a means of planning, drafting and revising essays that express thoroughly developed ideas in Standard English. Pre-requisite: Placement by KCTCS Assessment and Placement Policy at College Readiness Level. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

ENG 1012(0.75) Course ID:005788
Writing a Profile Essay
Focuses on academic writing. Provides instruction and practice in drafting, revising and editing essays which address specific audiences and enlist Standard English. Pre-requisite: ENG 1011. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

ENG 1013(0.75) Course ID:005789
Writing to Persuade
Focuses on academic writing. Provides review and instruction in formal academic writing conventions, at the work, sentence, paragraph and essay levels. Pre-requisite: ENG 1012. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

ENG 1014(0.75) Course ID:005790
Writing with Sources
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Pre-requisite: ENG 1013. Lecture 0.75 credits (11.25 contact hours)
Components: Lecture

ENG 1021(1) Course ID:005791
The Language of Argument
Focuses on academic writing. Provides further instruction in argumentation strategies and concepts, leading to the planning and drafting of a preliminary argumentative essay. Pre-requisite: ENG 101 or ENG 1014. Lecture 1.0 credits (15 contact hours)
Components: Lecture

ENG 1022(1) Argument Style and Design
Course ID:005792
Focuses on academic writing. Provides instruction and practice in the primary elements of academic writing style, including word choice, evidence selection and organization. Pre-requisite: ENG 1021. Lecture: 1 credit (15 contact hours)
Components: Lecture

ENG 1023(1) 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. Pre-requisite: ENG 1022. Lecture: 1 credit (15 contact hours)
Components: Lecture

ENG 2031(1) Business Writing Basics
Focuses on developing the skills needed to write business documents. Pre-requisite: ENG 101. Lecture: 1 credit (15 contact hours)
Components: Lecture

ENG 2032(1) Specialized Business Messages
Focuses on developing the skills needed to write business documents. Pre-requisite: ENG 102. Lecture: 1 credit (15 contact hours)
Components: Lecture

ENG 2033(1) Reports and Proposals
Focuses on developing the skills needed to write business documents. Pre-requisite: ENG 2032. Lecture: 1 credit (15 contact hours)
Components: Lecture

ENM 101(8) Course ID:007242
Energy Industry Fundamentals
Investigates the competencies required for employment by various industries that manufacture energy sources. Pre-requisite: ENG 1011. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Technical

ENM 111(3) Course ID:007243
Sustainability Management
Focuses on academic writing. Provides review and instruction in formal academic writing conventions, at the work, sentence, paragraph and essay levels. Pre-requisite: ENG 1012. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Technical

ENM 121(3) Course ID:007244
Solar Design and Applications
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Pre-requisite: ENG 1013. Lecture 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Technical

ENM 200(3) Course ID:007219
Commercial Energy Analysis
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Pre-requisite: ENG 1013. Lecture 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Technical

ENM 210(3) Course ID:007220
Smart Grid Applications
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Pre-requisite: ENG 1013. Lecture 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Technical

ENM 230(3) Course ID:007221
Building Automation
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Pre-requisite: ENG 1013. Lecture 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Technical

ENM 250(3) Course ID:007222
Regulatory and Environmental Issues in Energy Management
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Pre-requisite: ENG 1013. Lecture 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Technical

ENM 260(3) Course ID:007223
Air Conditioning and Refrigeration Regulations
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Pre-requisite: ENG 1013. Lecture 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Technical
ENM 1011(3) Course ID:016357
Energy Industry Basics
Investigates competencies required for employment by various industries that manufacture energy sources. Addresses the competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for energy industries. Combines with the other two modules to qualify students to take the CEWD Energy Industry Fundamentals (EIF) certification. Pre-requisite: ENM 1011. Lecture: 3 credits (45 contact hours).
Components: Lecture

ENM 1012(3) Course ID:016359
Power Creation and Distribution
Introduces students to methods of power production, power distribution, and physics principles that are associated with both. Addresses the competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for energy industries. Combines with the other two modules to qualify students to take the CEWD Energy Industry Fundamentals (EIF) certification. Pre-requisite: ENM 1011. Lecture: 3 credits (45 contact hours).
Components: Lecture

ENM 1013(3) Course ID:016422
Energy Emerging Technologies
Introduces students to emerging technologies and careers in the energy industry. Addresses the competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for energy industries. Combines with the other two modules to qualify students to take the CEWD Energy Industry Fundamentals (EIF) certification. Pre-requisite: ENM 1011. Lecture: 3 credits (45 contact hours).
Components: Lecture

ENV Environmental Technology
ENV 110(4) Course ID:001442
Introduction to Environmental Technology
Introduction to Environmental Technology provides a background in the historical and current developments in environmental problems, solutions, strategies, and regulations. Students explore the various aspects of water, land, and air pollution, pollution prevention and control, and the role of regulation at the local, state, and federal level. Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Technical

EQM Equine Management
EQM 100(3) Course ID:004755
Introduction to Equine Studies
The intent of this course is to give students a general overview and basic understanding of the horse, its care and management. Course topics include identification, anatomy, health, nutrition, facility and equipment management. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

EQM 120(3) Course ID:004756
Introduction to Commercial Breeding Practices
Introduces prospective horse personnel to the breeding farm environment. Includes topics that relate to commercial breeding farm management and the necessary record keeping requirements. Pre-requisite: EOM 100 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

EQM 140(2) Course ID:004757
Equine Business Management I
Course in equine management that serves to introduce the student to private and commercial horse farm operations, economic trends in the horse industry, international marketplace, capital, credit and risk associated with the equine industry. Pre-requisite: EOM 100 and BA 160, or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

EQM 240(2) Course ID:004852
Equine Business Management II
This course is a continuation of Equine Business Management I. Topics of discussion include types of farm ownership, structure of the horse farm as a business, and evaluation of farm financial performance through production levels, employee management, tax planning, bloodstock value, cash flow and budgeting. Pre-requisite: EQM 140 and concurrent enrollment in or successful completion of ACC 201 and ECO 201, or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

EQM 242(3) Course ID:004758
Equine Law
This course explores the value of legal documents as they relate to commercial and recreational horse/horse farm owners. Topics discussed include review of current legislation governing horse activities, types of legal contracts, liability issues, and security interests. Pre-requisite: EQM 100 and BA 267, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

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. Pre-requisite: EOM 242 or consent of instructor. Lecture 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

EQM 250(3) Course ID:004760
Equine Practicum
A supervised, field-based learning experience in the equine industry, including observation and proactive participation in affiliated environments. Students are required to analyze their experiences throughout the semester to develop career objectives and strong interpersonal, communication and leadership skills. Pre-requisite: EOM 240, EOM 242, and concurrent enrollment in or successful completion of EOM 246. Practicum: 3 credits (180 contact hours).
Components: Practicum Attributes: Technical

EQS Equine Studies
EQS 101(3) Course ID:007320
Introduction to the Thoroughbred
Provides a general overview and basic understanding of care and management of the thoroughbred, including identification registration information, conformation, equine behavior and equine facility design and management. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

EQS 103(1) Course ID:005349
Racehorse Care
Introduces principles of care for racehorses in a race barn training environment with students learning industry accepted standards and techniques utilized in providing care for racehorses. Lecture: 1.0 credits (15 contact hours).
Components: Lecture Attributes: Technical

EQS 104(2) Course ID:007321
Racehorse Care Lab
Introduces principles of care for racehorses in a race barn training environment with students learning industry accepted standards and techniques while providing daily care for 1 or 2 racehorses. Pre-requisite or Co-requisite: EQS 103. Lab: 3.0 credits (135 contact hours).
Components: Laboratory Attributes: Technical

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 Attributes: Technical

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 Attributes: Technical

EQS 112(4) Course ID:005352
Instructor Consent Required
Racetrack Riding Skills I
Introduces basic horse riding skills and their application to racehorse riding. Presents and requires daily practice of proper rider position at walk, trot, canter, on turn and in straights. Includes discussion and round pen applications of center of gravity of horse, center of gravity of rider and center of gravity of the combination of horse and rider. Teaches proper techniques for cooling out after exercise and or racing. Equine Studies is a selective admission program and enrollment in this course is dependent upon acceptance into the Equine Studies program. Pre-requisite: EQS 111 and Consent of Instructor. Pre-requisite Or Co-requisite: EQS 103 and EQS 104. Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture Attributes: Technical

EQS 113(4) Course ID:005353
Instructor Consent Required
Racetrack 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. Pre-requisite: EQS 112 and consent of the instructor. Lecture/Lab: 4.0 credit (150 contact hours).
Components: Lecture Attributes: Technical

EQS 115(3) Course ID:015656
Equine Health and Medications
Presents principles of health management as it relates to the prevention and treatment of common diseases, parasites and wounds. Pre-requisite: EQS 110 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EQS 118(3) Course ID:005803
Equine Bloodstock
Emphasizes skills in comprehending a sales page, marketing and preparing horses for sales, breeding and bloodline interpretation, and prospect analysis. Lecture: 3 credits.
Components: Lecture Attributes: Technical
EQS 122(3) Course ID:005498
Instructor Consent Required
Yearling Breaking and Management
Introduces the basics of managing and training weanling and yearling racehorses including conformation, movement, pedigree analysis; pre-purchase examinations and practical application of pressure-release techniques of breaking and training young racehorses. Pre-requisite: EQS 121 and permission of instructor. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture Attributes: Technical
Eqs 123(3) Course ID:005499
Breaking and Prepping Two-Year Olds
Covers basics of managing racehorses through their yearling to 2-year old transition. Includes acquiring yearlings and/or two-year olds, breaking, prepping for in-training sales and/or racing, concepts of nutrition for growing equine athletes, cardiovascular conditioning, muscle fitness, sale presentation and injuries of two-year olds in race training. Pre-requisite Or Co-requisite: EQS 103: Racehorse Care EQS 104: Racehorse Care Lab. Lecture/Lab: 3 credits (105 contact hours).
Components: Lecture Attributes: Technical
Eqs 126(3) Course ID:005804
Equine Nutrition
Presents principles of nutritional management as it relates to the overall health and performance of the horse. Pre-requisite: EQS 110 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
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 credits (45 contact hours).
Components: Lecture Attributes: Technical
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. Pre-requisite: EQS 110 or permission of instructor. Co-requisite: Concurrent enrollment in EQS 110. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
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. Pre-requisite: EQS 113 and permission of instructor. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture Attributes: Technical
Eqs 213(2) Course ID:005504
Instructor Consent Required
Racehorse Riding Techniques
Teaches advanced fundamentals of race riding such as breezing racehorses alone and in company, using proper riding techniques at each point in a race, breaking horses from the starting gate, and practicing race riding skills in training races. Pre-requisite: EQS 212 and consent of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture Attributes: Technical
Eqs 215(3) Course ID:005505
Instructor Consent Required
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. Pre-requisite: EQS 212 and permission of instructor. Co-requisite: 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. Pre-requisite: EQS 123. Lecture/Lab: 4.0 credit (150 contact hours).
Components: Lecture Attributes: Technical
Eqs 225(3) Course ID:005508
Instructor Consent Required
Life Skills for Horsemen
Explores concepts of goal setting, time management, marketing racehorses, marketing racing services, managing personal relationships as an equine professional, communication skills unique to equine professionals plus personal and family health and wellness plans. Prerequisite: EQS 222 and permission of instructor. Lecture: 3 credits (45 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 Attributes: Technical
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 of Applied Science in Equine Studies, Equine Studies Diploma and certificate program that list Equine Cooperative Education as an approved course. Pre-requisite: Consent of Instructor. Co-op: 1.0 - 9.0 credits (60 - 540 contact hours).
Components: Co-op Attributes: Technical
ESL 011(4) Course ID:005308
Beginning Listening and Speaking
High-beginning level students will improve the ability to speak and understand English in simple everyday and academic situations. The course will provide practice in pronunciation and basic oral communication functions. Beginning academic listening and speaking skills will also be covered. Students will be recommended to this course based on the ESL placement examination. Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Developmental/Remedial Learning Skills
ESL 012(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 comprehension 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 completion of ESL 11. Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Developmental/Remedial Learning Skills
ESL 013(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 completion of ESL 12. Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Developmental/Remedial Learning Skills
ESL 020(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. Pre-requisite: placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Remedial - Reading
ESL 030(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. Pre-requisite: ESL 020 or placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Developmental/Remedial Learning Skills
ESL 031(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. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills, Course Also Offered in Modules

ESL 051(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. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Reading

ESL 052(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. Pre-requisite: ESL 51. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Reading

ESL 053(3)  Course ID:004045
High-Intermediate Reading for Non-Native English Speakers
High-level students will master fundamental reading skills. They will be introduced to a variety of genres, such as newspaper articles and essays, poems, short stories, charts, graphs and many others. In addition, this course will foster cultural awareness, understanding and interaction. Through the readings and activities introduced in the course students will engage in meaningful dialogue, and in the process, refine their English skills. Pre-requisite: ESL 052 or placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Reading

ESL 061(4)  Course ID:004046
Foundations of College Writing I for Non-Native English Speakers
Beginning level ESL students are introduced to composition with an emphasis on clarity, organization, development and correctness. Comprehensive review of mechanics, grammar and spelling as these apply to their own writing is also addressed in this course. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 062(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. Pre-requisite: ESL 61. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 063(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. Pre-requisite: ESL 62 or placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 071(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 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 072(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
Attributes: Remedial - English and Writing

ESL 081(3)  Course ID:007047
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
Attributes: Remedial - English and Writing

ESL 082(3)  Course ID:007049
College Grammar II for Non-Native Speakers
Introduces intermediate-level verb tenses, formation of questions, modals, 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
Attributes: Remedial - English and Writing

ESL 090(4)  Course ID:005079
Beginning Writing
High-beginning level ESL students will learn composition skills by receiving instruction in the following: the writing process, organization, sentence development, paragraph writing, and editing. Basic instruction in grammar provided. Students will be recommended to this course based on the ESL placement examination. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 091(4)  Course ID:005080
Intermediate Writing for Non-Native English Speakers
Low-intermediate level ESL students will enhance their composition skills by receiving instruction in the following: the writing process, organization, multi-paragraph writings, editing, and critical reading. Basic instruction in grammar provided. Pre-requisite: placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 092(4)  Course ID:005082
Advanced Writing for Non-Native English Speakers
ESL 92 is designed to help students prepare for ENG 101. High-intermediate level ESL students continue to work on the writing process, editorial improvement, and critical reading. Students will be introduced to documenting sources. Grammar instruction includes advanced grammatical points. Pre-requisite: ESL 91 or placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 100(3)  Course ID:016566
Listening for Academic Purposes
This course cultivates skills to improve academic listening performance for non-native speakers of English enrolled in American university classes. Special attention is given to lecture styles, note-taking, interpersonal communication skills, research projects and presentations. This course is designed to raise students’ listening skills so they can participate in academic settings with competencies similar to their native peers. Lecture: 3 credits.
Components: Lecture
Attributes: Enrichment  ESL, University Course (University of Kentucky)

ESL 110(3)  Course ID:016517
Speaking for Academic Purposes
This course cultivates skills to improve academic speaking performance for non-native speakers of English enrolled in American university classes. Special attention is given to effective academic presentations, interpersonal communication skills, pronunciation and accent. This course is designed to raise students’ speaking skills so they can participate in academic settings with competencies similar to their native-speaker peers. Pre-requisite: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Enrichment  ESL, University Course (University of Kentucky)

ESL 120(3)  Course ID:016568
Reading for Academic Purposes
This course cultivates skills to improve academic reading performance for non-native speakers of English enrolled in American university classes. Special attention is given to cross-disciplinary academic reading, reading rates and speed, effective research methods, documentation and essay exams skills. This course is designed to raise students’ reading skills so they can participate in academic settings with competencies similar to their native-speaker peers. Pre-requisite: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Enrichment  ESL, University Course (University of Kentucky)

ESL 130(3)  Course ID:016518
Writing for Academic Purposes
This course cultivates skills to improve academic writing performance for non-native speakers of English enrolled in American university classes. Special attention is given to cross-disciplinary research, collaboration, the writing process, content organization and development, editing and proofreading. This course is designed to raise students’ writing skills so they can participate in academic settings with competencies similar to their native-speaker peers. Pre-requisites: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Enrichment  ESL, University Course (University of Kentucky)

ESL 311(1)  Course ID:007396
ESL Greetings & Farewells
Highlights greetings and introductions, giving and receiving personal information, and making plans and discussing the future. Introduces expressing the future using the verb “to go.” Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills
EST 101(3) Course ID: 005324
Introduction to Energy Systems
Introduces energy generating systems including solar, wind, bioenergy, geothermal, hydroelectric, hydrogen-based, petroleum-based, coal, and nuclear. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 231(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 shut-downs, and transient conditions. Pre-requisite: EST 211 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 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. Pre-requisite: EST 211 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 220(3) Course ID: 005495
Power Plant Thermodynamics
Introduces basic thermodynamic concepts and the applications of thermodynamics in a fossil-fueled power plant. Pre-requisite: PHY 151 or higher. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 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. Pre-requisite: EST 213. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 150(4) Course ID: 004744
Introductory Ecology
Introduces basic concepts and current applications of ecology relevant to environmental issues. Emphasizes relationships between organisms and the environment; influencing factors affecting distribution and abundance; population structure and regulation; energy flow and nutrient cycling through the environment; and, development, structure, and response to distribution of organismal communities. Includes weekly laboratories to provide hands-on field experiences to reinforce concepts learned in lecture. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

EST 160(3) Course ID: 004745
Hydrological Geology
This course provides an introduction to geology and hydrology with an emphasis on understanding natural processes and the effects of human activities. Major topics covered include: plate tectonics; formation and classification of rocks and minerals; the processes affecting the hydrologic cycle; soil formation and classification; subsurface geology and groundwater movement; stream formation and flow; floods; and human impacts to stream hydrology and morphology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 161(1) Course ID: 017027
Hydrologic Geology Lab
Reinforces concepts covered in EST 160 Hydrologic Geology and provides activities to apply those concepts to real life situations. Includes mineral and rock identification, map interpretation, groundwater protection, erosion and sediment control, stream dynamics and restoration. Pre-requisite or Co-requisite: If yes, list: EST 160 Hydrologic Geology or approval of the Environmental Science Technology Program Coordinator. Lab 1 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

EST 170(2) Course ID: 004746
Environmental Sampling Laboratory
A laboratory course which provides the fundamentals in evaluating and designing sampling approaches for different situations and different media. The course will provide students with field experience in sample collection, surface water, groundwater, and benthic invertebrates. Laboratory: 2 credits (60 contact hours). Pre-requisite: EST 150 or consent of instructor.
Components: Laboratory
Attributes: Technical

EST 220(3) Course ID: 004747
Pollution of Aquatic Ecosystems
This course examines freshwater ecosystems and typical aquatic pollutants. Discussion topics focus on the sources, transport, fate, and effects of common pollutants such as domestic wastewater, metals, acidity, and pesticides. Methods to minimize or eliminate the sources and effects of pollutants are also explored. Pre-requisite or concurrent: EST 150, EST 160, CHE 105, and CHM 105 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 230(2) Course ID: 004748
Aquatic Chemistry Laboratory
This course provides focused study on the chemistry of water. The course will provide students with laboratory experience in analyzing surface, ground, and drinking waters for a variety of chemical constituents. Laboratory: 2 credits (60 contact hours). Pre-requisite: CHE 105, CHEM 105, and pre-requisite or concurrent EST 220.
Components: Laboratory
Attributes: Technical

EST 240(4) Course ID: 004749
Sources and Effects of Air Pollution
This course provides an introduction to the study of ambient and indoor air pollution with an emphasis on sources, dispersion, and health and welfare effects of the major pollutants. Both regulatory and engineering controls of stationary and mobile sources are explored. A laboratory provides experience with sampling and analysis of air pollutants. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: EST 150 and CIT 130, or equivalent, or consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

EST 250(3) Course ID: 004750
Solid and Hazardous Waste Management
This course examines methods of managing solid and hazardous waste, with an emphasis on pollution prevention. Topics covered include relevant legislation, recycling, incineration, landfill operations, management of radioactive waste, remediation of waste sites and site worker health and safety. Pre-requisite: EST 150 and EST 160, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 260(2) Course ID: 004751
Environmental Analysis Laboratory
This course provides an introduction to the fundamentals of analyzing environmental media. The course will provide students with laboratory experience in analyzing soil, surface water, groundwater, air and microbial samples. Laboratory: 2 credits (60 contact hours). Pre-requisite: CHE 105, CHM 105 and pre-requisite or concurrent EST 170.
Components: Laboratory
Attributes: Technical

EST 270(3) Course ID: 004752
Environmental Law and Regulation
This course is structured to provide the student with a basic understanding of major current federal and state environmental legislation and regulation with an emphasis on those portions that affect the regulated community. The course will also include an examination of the role of common law and the branches of government in environmental protection. Pre-requisite or concurrent: EST 220, EST 240, and EST 250 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 290(2) Course ID: 017026
Applied Projects in Environmental Science Technology
Outlines varies as determined by project and instructor. Pre-requisite: Consent of EST Program Coordinator. Lecture: 1 credit (15 contact hours). Lab: 1 credit (30 contact hours).
Components: Lecture
Attributes: Technical

EST 299(1 - 3) Instructor Consent Required
Selected Topics in Environmental Science Technology
A special project or experience in Environmental Science will be selected to enhance core material in the Environmental Science Technology program. It provides the student an opportunity for independent study or specialized instruction as approved by an instructor. This course may be repeated to a maximum of 6 hours. Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

ETT 110(4) Course ID: 004231
Voice & Data Installer Level I
A comprehensive orientation to the telecommunication industry. Provides entry-level telecommunications installing skills with the background, knowledge, and basic skills needed to function effectively on the job. Designed for those with little or no telecommunication installation experience. Pre-requisite: Basic physics/electricity courses are recommended but not required. Lecture: 4 credits (75 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ETT 116(3) Course ID: 004235
Fiber Optics Systems
Provides a technical level of understanding in the areas of networking connectivity, data communications concepts and communication protocols. Communications and networking concepts including hardware, software, and transmission media; access methods and protocols; and network configurations area are addressed. Emphasis is on local area networks, and students will install a basic network. Pre-requisite: ETT 110 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Attributes</th>
<th>Components</th>
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<tbody>
<tr>
<td>FLM 112(4)</td>
<td>Filmmaking: Treatment to Short Screen Play</td>
<td>Technical</td>
<td>Components: Lecture Attributes: Technical</td>
<td>PROVIDES PROJECT-BASED INSTRUCTION ON THE BASICS OF FILMMAKING. FOCUSES ON THE CREATION OF A SHORT FILM, INCLUDING WRITING, DIRECTING, EDITING, AND DISTRIBUTION. LECTURE: 4.0 CREDITS (60 CONTACT HOURS).</td>
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<tr>
<td>FLM 122(4)</td>
<td>Filmmaking: Storyboard through Production</td>
<td>Technical</td>
<td>Components: Lecture Attributes: Technical</td>
<td>PROVIDES PROJECT-BASED INSTRUCTION ON THE BASICS OF FILM PRODUCTION. FOCUSES ON THE CREATION OF A SHORT FILM, INCLUDING WRITING, DIRECTING, EDITING, AND DISTRIBUTION. LECTURE: 4.0 CREDITS (60 CONTACT HOURS).</td>
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<tr>
<td>FAM 252(3)</td>
<td>Introduction to Folk Science</td>
<td>Technical</td>
<td>Components: Lecture Attributes: SB - Social Behavior Science</td>
<td>INTRODUCES THE SCIENTIFIC STUDY OF THE FOLK, INCLUDING IMPORTANT THEORETICAL FRAMEWORKS IN FOLK SCIENCE, HISTORICAL TRENDS IN MARITAL AND FAMILY LIFE, GENDER ROLES, FAMILY FUNCTION, PARENTHOOD, COMMUNICATION, ECONOMICS OF FAMILY LIFE, CONFLICT, DIVERSE FAMILIES, AND STRESS. LECTURE: 3 CREDITS (45 CONTACT HOURS).</td>
</tr>
<tr>
<td>FHM 100(2)</td>
<td>Dosage Calculations</td>
<td>Technical</td>
<td>Components: Lecture Attributes: Enrichment Course Other, Technical</td>
<td>PROVIDES AN OVERVIEW OF BASIC MATHEMATICAL SKILLS, SUCH AS THE KNOWLEDGE OF THE SYSTEM OF MEASUREMENT AND CONVERSION, AND APPLICATION SKILLS TO PERFORM DOSAGE CALCULATIONS. LECTURE: 2 CREDITS (30 CONTACT HOURS).</td>
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Components: Laboratory
FPX 1003(0.4) Course ID:005675
Introduction to Pneumatic System Maintenance
Introduces pneumatic system maintenance. Covers the skills required to service modern pneumatic and air preparation systems. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1013 or Consent. Lecture: 0.4 credit (9 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. Co-requisite: FPX 1014 or Consent. Lecture: 1 credit (15 contact hours).

Components: Lecture
FPX 1005(1) Course ID:006543
Pneumatic Systems and Components
Introduces the basic fundamentals of pneumatic components and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides the opportunity to design and build actual pneumatic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1015 or Consent. Lecture: 1 credit (15 contact hours).

Components: Lecture
FPX 1011(0.3) Course ID:005676
Introduction to Fluid Power Lab
Introduces the basic concepts of fluid power and discusses the application of those concepts in the development of hydraulic and pneumatic systems. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1001 or Consent. Lab: 0.3 credits (9 contact hours).

Components: Laboratory
FPX 1012(0.3) Course ID:005677
Introduction to Hydraulic System Maintenance Lab
Introduces hydraulic system maintenance. Familiarizes students with hydraulic fluids, reservoirs, and filters. Covers the methodologies required when servicing a typical hydraulic system. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1002 or Consent. Lab: .3 credit (9 contact hours).

Components: Laboratory
FPX 1013(0.3) Course ID:005678
Introduction to Pneumatic System Maintenance Lab
Introduces pneumatic system maintenance. Covers the skills required to service modern pneumatic and air preparation systems. Includes a general discussion of the safe working practices required with fluid power systems. Co-requisite: FPX 1003 or Consent. Lab: .3 credit (9 contact hours).

Components: Laboratory
FPX 1014(0.55) Course ID:006544
Hydraulic System Components and Applications Lab
Introduces basic fundamentals of hydraulic component, system design, and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides an opportunity to design and build actual hydraulic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion of the safe working practices required with fluid power systems. Co-requisite: FPX 1004 or Consent. Lab: 0.55 credits (16.5 contact hours).

Components: Laboratory
FPX 1015(0.55) Course ID:006545
Pneumatic Systems and Components Lab
Includes the application of basic fundamentals of pneumatic components and operation. Covers 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. Lab component for FPX 1005. Co-requisite: FPX 1005 or Consent. Lab: 0.55 Contact Hours (16.5).

Components: Laboratory

FRE French Language and Literature
FRE 101(4) Course ID:000866
Elementary French I
Introduces basic modes of communication in French. Stresses speaking, listening, reading and writing as target skills. Emphasizes everyday language and presents an overview of the cultures of various Francophone countries. Lecture: 4 credits (60 contact hours). Components: Lecture Attributes: Foreign Language, Cultural Studies

FRE 102(4) Course ID:000754
Elementary French II
Continues the study of basic French through grammar, reading, and oral practice. Stresses speaking, listening, reading and writing as target skills. Emphasizes everyday language and exploring the cultures of various Francophone countries. Pre-requisite: FRE 101. Lecture: 4 credits (60 contact hours). Components: Lecture Attributes: Foreign Language, Cultural Studies

FRE 201(3) Course ID:000874
Intermediate French I
Focuses on developing listening, speaking, reading, and writing skills in French at the intermediate level with an emphasis on developing cultural competency. Pre-requisite: FRE 102 or two years of high school French and placement test. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Foreign Language, Cultural Studies

FRE 202(3) Course ID:000811
Intermediate French II
Continues FRE 201 with a focus on developing listening, speaking, reading, and writing skills in French at the intermediate level with an emphasis on developing cultural competency. Pre-requisite: FRE 201 or three years of high school French and placement test. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Foreign Language, Cultural Studies

FRS Fire/Rescue Science
FRS 101(3) Course ID:001466
Introduction to Fire Service
This course includes fire department organization, fire behavior, firefighter safety, personal protective equipment, portable fire extinguishers, fire hose, appliance and streams. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

FRS 102(3) Course ID:001467
Firefighters Basic Skills I
Includes ropes, ladders, aircraft rescue, forcible entry, first aid, bloodborne pathogens, emergency disaster planning, and CPR. Pre-requisite: FRS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

FRS 103(3) Course ID:001468
Firefighters Basic Skills II
Includes building construction, wildland fire behavior, fire control, and ventilation. Pre-requisite: FRS 102 or Consent of Instructor. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

FRS 104(3) Course ID:001469
Firefighters Intermediate Skills I
Includes water supply, foam fire streams, fire alarms and communications, hazardous materials awareness, hazardous materials operations, sprinklers, and salvage and overhaul. Pre-requisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

FRS 105(3) Course ID:001470
Firefighters Intermediate Skills II
Includes fire department organization, fire behavior, personal protective equipment, fire hose, appliances and streams, ropes, forcible entry. Pre-requisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

FRS 201(3) Course ID:001471
Firefighters Advanced Skills I
Includes firefighter safety, rescue, ventilation ladders, fire control, and emergency disaster planning. Pre-requisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

FRS 202(3) Course ID:001472
Firefighters Advanced Skills II
Includes portable fire extinguishers, water supply, pump operations, foam fire streams, salvage, fire prevention, public education, and fire cause determination. Pre-requisite: FRS 104 or Consent of Instructor. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

FRS 203(3) Course ID:001473
Firefighters Advanced Skills III
Includes pump operations II, drivers training, overhaul, fire alarms and communications, sprinklers, and practicum. Pre-requisite: FRS 202 or Consent of Instructor. Lecture: 3 credits (90 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

FRS 204(3) Course ID:001474
EMT First Responder
EMT First Responder includes first responder (EMS). Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

FRS 205(5) Course ID:001475
Fire Officer I
Includes incident safety officer, haz-mat tech., fire prevention, public education and fire cause determination II. Pre-requisite: FRS 202 or Consent of Instructor. Lecture: 5 credits (75 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical
FYE 100(1) Course ID:007399
Achieving Academic Success
Introduces students to strategies and information that promote success in the college environment including educational planning, campus resources, and academic success skills. NOTE: Student may not receive credit for both FYE 100 and FYE 105. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: College Success, Other, Course Also Offered in Modules, Enrichment 1st Year Experience

FYE 100(2)(0.3) Course ID:007401
Self-Management Skills
Introduces students to strategies and resources to promote personal responsibility for self-management skills. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 0.3 credits (4.5 contact hours).

Components: Lecture
Attributes: Enrollment 1st Year Experience

FYE 100(3)(0.3) Course ID:007402
Academic and Career Choices
Introduces students to strategies and resources to promote development of academic and career choices. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 0.3 credits (4.5 contact hours).

Components: Lecture
Attributes: Enrollment 1st Year Experience

FYE 105(1) Course ID:007403
Orientation to College
Introduces students to college policies, departments, student organizations and technology to promote academic and personal success. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Enrollment 1st Year Experience

FYE 105(2)1 Course ID:007404
Education and Career Planning
Introduces students to skills and resources needed to achieve academic and career success. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Enrollment 1st Year Experience

FYE 105(3)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. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Enrollment 1st Year Experience

GEN 91(3) Course ID:007368
Foundations of Information Literacy
Introduces information literacy skills. Focuses on skills related to defining information needs, finding sources, using information to solve problems, organizing and presenting information, and evaluation. Pre-requisite: COMPASS Reading Score of 60+ OR English Score of 39+. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Developmental/Remedia Learning Skills

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
Attributes: Other, Course Also Offered in Modules, Enrichment 1st Year Experience

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, Enrichment Study Skills

GEN 103(1) Course ID:005328
Instructor Consent Required
Principles of Peer Mentoring
Focuses on the study of issues, topics, and strategies related to mentoring first-year students. Relevant student development theory is highlighted. Prepares peer mentors to assist in teaching a section of GEN 100. Pre-requisite: Sophomore status and consent of instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Other

GEN 104(2) Course ID:005329
Instructor Consent Required
Applied Principles of Peer Mentoring
Offers academic credit to peer mentors who assist teaching a section of GEN 100 with a faculty member. Prepares peer mentors for helping plan course content, meeting with first-year students, and assisting with other course-related responsibilities as determined by the GEN 100 faculty member. Pre-requisite: GEN 103 and consent of GEN 100 instructor and Sophomore status. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Other

GEN 120(3) Course ID:003864
Service Learning
Engages students directly in structured, community-based activities to acquaint them with community opportunities, services, and needs. Integrates concepts from the classroom with community service allowing student to practice concepts while developing an appreciation of service. Lecture: 3 credits (45 contact hour).

Components: Lecture
Attributes: Other

GEN 122(1) Course ID:003871
The Exemplary Tutor
Trains college students to be effective tutors by introducing ethics and philosophy of tutor-tutee relationships and concepts of questioning, learning styles, problem solving, active listening, goal setting, and critical thinking. Can be taken 1 time for a total of 1 credit. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Other

GEN 123(1 - 3) Course ID:003872
The Exemplary Reading Tutor
Provides credit for students wishing to tutor in reading or reading based courses as related to the reading expectations in the KDE Core Curriculum. Grants credit of 1 hour for 45 hours of tutoring, 2 credits for 90 hours of tutoring, and 3 hours for 120 hours of tutoring. May be repeated for a total of 6 credits. Pass/Fail. Pre-requisite: GEN 122. Lecture/Laboratory: 1 - 3 credits (15 to 45 contact hours).

Components: Laboratory, Lecture
Attributes: Other

GEN 125(3) Course ID:006590
Applied Meta-Thinking
Develops critical thinking skills and literacy processes across disciplines utilizing communication and appropriate applications in making self-paced, self-directed decisions and judgments. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: All - Arts and Humanities, Course Also Offered in Modules

GEN 130(3) Course ID:005055
Introduction to Information Resources
Provides basic concepts of the information society including different types of libraries and electronic resources, such as the internet, online databases, and information management software. Focuses on the nature of information, computer technology, and ethical computing issues. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other
GEN 131(1) Course ID:005524
Basic Library Research and Resources
Introduces student to effective and efficient use of information resources through development of search statements, strategies, location and evaluation of information and information resources, and review and revision of search strategies as needed. Introduces students to the library catalog, print resources, databases, web resources and to the evaluation of information. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

GEN 140(3) Course ID:000179
Instructor Consent Required
Development of Leadership
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. Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

GEN 150(1) Course ID:00589
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.). Lecture/ Lab: 1 credit (15 contact hours).
Components: Laboratory, Lecture
Attributes: Computer Literacy, Other

GEN 175(3) Course ID:005694
Career and Life Skills Development
Investigates the importance of appropriate social behavior and interaction in the workplace. Presents skills necessary for job search, self-management, and life and work transitions for adapting to changing demands and expectations. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules

GEN 225(3) Course ID:006601
Lifelong Learning Applications
Develops and identifies overall life skills in complex systems as a whole to interact and communicate with others to produce successful outcomes. Pre-requisite: GE 175 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

GEN 240(3) Course ID:015506
Leadership Applications
Connects the principles of transformational leadership with personal behavior by building a base of leadership theory for a practical philosophy. Engages students in directed projects and case studies to put theory into practice. Provides instruction directly related to integrity, planning, alignment, decision-making, fostering understanding, change-management, relationships, internal locus of control, trust, respect, image-projection, influence, and building a following. Pre-requisite: GEN 140 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

GEN 276(1) Course ID:004489
Employment and Professional Skills
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
Attributes: Enrichment Career Counseling, Technical

GEN 1021(1) Course ID:007078
College Basics & Learning Styles
Presents an overview to campus and online resources, policies, and procedures including diversity. Presents strategies for identifying personal learning, self-management, and career exploration tools. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1022(1) Course ID:007079
Critical Reading and Thinking
Presents strategies and tools to promote critical reading and thinking. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1023(1) Course ID:007080
Classroom Skills and Test-taking
Presents strategies and tools to promote classroom and test-taking skills. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEO Geography

GEO 130(3) Course ID:000351
Earth's Physical Environment
A course exploring the fundamental characteristics of earth's physical environment. Emphasis is placed on identifying interrelationships between atmospheric processes involving energy, pressure, and moisture; weather and climate; and terrestrial processes of vegetative biomes, soils, and landscape formation and change. Fulfills elementary certification requirements in education, and USP cross-disciplinary requirement. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

GEO 152(3) Course ID:000398
Regional Geography of the World
Introduces regional geography with a focus on the world’s physical and human landscapes. Emphasizes connections between regions and how each region affects and is affected by global issues such as economic restructuring, food production, and environmental change. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

GEO 160(3) Course ID:000422
Lands and Peoples of the Non-Western World
Provides a geographic study of world regions defined conceptually and historically as non-Western. Includes global patterns of social, cultural, economic and political differences between the West and Non-West and the processes key to making the Non-Western world, such as colonialism and imperialism. Considers significant current issues including sustainable development, environment, human rights, and gender relations. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

GEO 162(3) Course ID:007194
Introduction to Global Environmental Issues
This course addresses environmental questions of global importance, including population growth, resource consumption, environmental degradation, biodiversity conservation, toxic contamination and environmental justice. (Fulfills Gen Ed Global Dynamics requirement at the University of Kentucky.) Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

GEO 163(3) Course ID:007195
Global Conflicts
This course will focus on the dynamics and effective conflicts over boundaries, territory, environmental resources, and civil and political rights. A geographic lens will be used to understand contemporary world conflicts. This course introduces students to an understanding of conflict as both grounded in localities and an effect of global interconnections - political, economic, and cultural. The course will focus on six major contemporary conflicts. Students will become versed in the debates and possible options for solution of these problems. While lectures will provide students with an understanding of the coordinates of the conflicts, recitation sections provide an opportunity for discussion and debate. The readings are chosen to supplement lecture material, providing a greater depth of understanding of the issues. (Fulfills the Global Dynamics requirement of General Education at the University of Kentucky.) Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science, University Course (University of Kentucky)

GEO GEO 172(3) Course ID:000158
Human Geography
Presents a study of the spatial distributions of significant elements of human occupancy of the earth's surface including basic concepts of diffusion, population, migration, settlement forms, land utilization, and impact of technology on human occupancy of the earth. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

GEO 210(3) Course ID:000610
Pollution, Hazards, and Environmental Management
An introduction to environmental systems such as weather and climate, vegetation, land forms and soils, and how the quality of these systems is modified by human use. Resource issues discussed include: atmospheric pollution and global warming; groundwater, flooding, and floodplain management; volcanic activity and earthquakes; and biospheric processes associated with deforestation and land eutrophication. Case studies based upon major environmental problems illustrate how human activity and environmental systems interact. Fulfills USP Cross-Disciplinary requirement. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

GEO 222(3) Course ID:000482
Cities of the World
Focusses 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. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

GEO 240(3) Course ID:000434
Geography and Gender
Presents a geographic approach to the study of gender relations, emphasizing the role of space and place in shaping the diversity of gender relations throughout the world. Stresses the importance of gender relations in understanding a variety of issues through the application of case study analysis. Includes the design and use of urban and rural environments, “Third World” development, regional economic restructuring, changing political geographies, and migration. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

GEO 251(3) Course ID:000659
Weather and Climate
A survey of the atmospheric controls associated with local, regional, and global weather and climate variability. Includes fundamental coverage of the physics and chemistry of energy, gases, pressure and moisture, with a goal of promoting understanding of general weather analysis and forecasting, severe storms, atmospheric pollution, descriptive climatology, and global climate change. Pre-requisite: GEO 130 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science
Conduct simple analyses over their data. Intended for those with limited experience with GIS who are exploring career opportunities in the field. Pre-requisite: GIS 110. Lecture: 3 credits (45 contact hours).

Components: Lecture

GIS 145(3) Course ID:016881
Remote Sensing
Introduces remote sensing of the earth with topics that include the physical principles of remote sensing, history and future trends, sensors and their characteristics, image data sources, and image classification and analysis techniques. Pre-requisite or Co-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

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. Pre-requisite: GIS 120. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

GIS 260(3) Course ID:016883
Geospatial Web Mapping
Introduces the design, publishing, optimization and maintenance of geospatial servers, and basic geospatial web services and applications. Includes an introduction to browser and mobile enabled interactive applications. Pre-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

GLY 101(3) Course ID:000878
Physical Geology
Introduces the principles of physical geology, including study of minerals and rocks, volcanoes and earthquakes, plate tectonics, and the landforms of Earth's surface. Requires concurrent enrollment in GLY 111. Lecture: 3 credits (45 contact hours).

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. Pre-requisite: GLY 101 and GLY 111 or consent of the instructor. Co-requisite: GLY 112. Lecture: 3 credits (45 contact hours).

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 specimen, interpret landscape features as shown on topographic maps, and study geologic maps. Co-requisite: GLY 101. Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory
Attributes: SL - Science Laboratory

GLY 112(1) Course ID:000548
Historical Geology Laboratory
Interpret geologic maps and cross-sections, and study important invertebrate fossil groups. Requires one field trip. Pre-requisite: GLY 101 and GLY 111 or consent of the instructor. Co-requisite: GLY 102. Lab: 1.0 credit (30 contact hours).

Components: Laboratory
Attributes: SL - Science Laboratory

GLY 125(3) Course ID:016917
Geology of the National Parks and Monuments
Introduces the principles of physical geology within the context of the U.S. National Parks and Monuments, including Earth materials, geologic time, plate tectonics, and the surface and internal processes that have shaped and continue to shape the Earth as related to specific National Park and Monument sites. Includes an overview of the history of the park system and its unique role in understanding and preserving our natural history and environment. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

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: 3.0 credit 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: SL - Science Laboratory

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
HCS 110(1) Course ID:016971
Culture of Healthcare
Covers job expectations and roles of clinical personnel in a healthcare setting. Discusses healthcare organization inside a practice setting, privacy laws, professional and ethical issues encountered in the workplace, and common form of care delivery. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 125(1) Course ID:016972
History in Healthcare
Introduces the concept of “meaningful use” of electronic health records as well as the development and background of the IT landscape in healthcare and public health, including experiments from the 1950s and 1960s culminating in the HITECH Act. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 145(1) Course ID:016973
Health IT Terminology
Explains terminology used by workers in healthcare, public health, or those who work with Health IT systems including common medical terms, technology systems, health data standards, and clinical terminology. Pre-requisite or Co-requisite: AHS 115 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 150(2) Course ID:016974
Health IT Analysis & Quality
Introduces concepts of Health IT and practice workflow process analysis and redesign. Addresses how establishing a culture to support increased quality and safety is critical in the healthcare environment. Discusses the approaches to assessing patient safety issues, implementing quality management, and reporting through electronic systems. Pre-requisite or Co-requisite: CIT 105 AND HCS 145, or consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HCS 155(2) Course ID:016975
Health Management Systems
Covers specific health care and public health applications. Introduces Health IT standards, health-related data structures, software applications, enterprise architecture in health care, and public health organizations. Pre-requisite or Co-requisite: CIT 105 AND HCS 145, or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HCS 180(1) Course ID:016976
Usability and Human Factors
Introduces rapid prototyping, user-centered design and evaluation, and usability. Emphasizes the effects of new technology and workflow on downstream processes, as well as facilitation of a unit-wide focus group or simulation. Pre-requisite or Co-requisite: CIT 105 AND AHS 115 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 200(1) Course ID:016977
Health IT Computer Systems
Provides an intermediate overview of computer architecture, data organization, representation, structure of programming languages, networking, and data communication about Health IT Systems. Pre-requisite or Co-requisite: CIT 105 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 210(3) Course ID:016978
Implementing Health IT Systems
Introduces the OSI model, including the purpose and content of each of its seven layers as well as hardware, processes, protocols, and tools at each layer. Provides a practical experience that will address approaches to assessing, selecting, and configuring EHRs (electronic health records) to meet the specific needs of customers and end-users. Emphasizes the principles underlying system configuration, including system selection, planning, testing, troubleshooting, and final deployment. Pre-requisite or Co-requisite: AHC 145 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HCS 220(2) Course ID:016979
Working with HIT Systems
Identifies the components of Health IT systems and their applications. Introduces the potential threats to security and need for standards, high levels of usability, and awareness of how errors can occur. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 230(2) Course ID:016980
Vendor-Specific Systems
Provides an in-depth discussion in Vendor-Specific Systems, focusing specifically on system and database architectures used in commercial Electronic Health Records (EHRs), vendor strategies for terminology, knowledge management, ways to assess decision support capabilities of EHRs, and vendor-specific training (go-live strategies). Pre-requisite or Co-requisite: HCS 200 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HCS 260(1) Course ID:016981
Health IT Instructional Design
Examines Health IT training management systems, instructional design software tools, teaching techniques and strategies, evaluation of learner competencies, maintenance of training records, and measurement of training program effectiveness. Pre-requisite or Co-requisite: HCS 165 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 280(1) Course ID:016982
Project Management & Teams
Introduces project management tools and techniques that result in the ability to create and follow a project management plan. Emphasizes the value of being “team players” by understanding roles, the importance of communication, and group cohesion. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 281(1) Course ID:016983
Health IT Customer Service
Develops customer service skills to encourage effective communication across the team. Introduces roles that will be encountered in healthcare and public health settings. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 290(1) Course ID:016984
Leadership for Health IT
Develops the processes and skills for leadership roles and effective management of teams. Emphasizes the leadership modes and styles best suited to Health IT system deployment. Pre-requisite or Co-requisite: HCS 150 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 295(1) Course ID:016985
Health IT Capstone
Serves as the capstone course for the certificate program. Integrates prior learning outcomes into a single integrated learning experience. Includes preparation for and completion of the end of program assessment for the Health Care Specialist Certificate. Pre-requisite or Co-requisite: Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HEO 106(7) Course ID:001522
Motograder 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. Pre-requisite: DIT 103. Lab: 7.0 credits (315 contact hours).
Components: Laboratory
Attributes: Technical

HEO 107(7) Course ID:015676
Utility Tractor Loader Operator
Provides a broad base of skills required to operate heavy equipment with an emphasis on safety. Focuses on job awareness and industry requirements. Permits experience on dump truck and utility tractor loader. Pre-requisite or Co-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HEO 110(7) Course ID:015677
Power Shovel Backhoe Operator
Presents a background in the operation, maintenance, and safety considerations for a dump truck and power shovel backhoe. Pre-requisite or Co-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HEO 111(7) Course ID:001524
Bulldozer Operator
Presents a background in the operation, maintenance, and safety considerations for a dump truck and bulldozer. Pre-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HEO 115(7) Course ID:0004571
Hydraulic Excavator Operator
Covers a broad base of skills required to operate heavy equipment safely. Includes how to operate a hydraulic excavator safely. Pre-requisite: HEO 151, Lecture: (45 contact hours). Lab: (180 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HEO 125(3) Course ID:016986
Special Problems I
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite Or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
HEO 151(6) Course ID:015678
Heavy Equipment Operating I
Instructs students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains techniques of operation such as digging, dishing, sloping, stripping, grading, backfilling, clearing fields, and foundation excavating. Pre-requisite or Co-requisite: DIT 103. Lecture: 6.0 credits (90 contact hours).

Components: Lecture Attributes: Technical

HEO 201(6) Course ID:015679
Heavy Equipment Operating II
Reinforces material first presented in HEO 151. Provides intermediate instruction for students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains intermediate techniques of operation such as digging, dishing, sloping, stripping, grading, backfilling, clearing fields, and foundation excavating. Pre-requisite or Co-requisite: DIT 103. Lecture: 6.0 credits (90 contact hours).

Components: Lecture Attributes: Technical

HEO 225(3) Course ID:001528
Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Instructs all facets of project control. Pre-requisite Or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).

Components: Laboratory Attributes: Technical

HEO 251(6) Course ID:015680
Heavy Equipment Operating III
Reinforces material presented in HEO 151 and 201. Provides advanced instruction for students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains advanced techniques of operation such as digging, dishing, sloping, stripping, grading, backfilling, clearing fields, and foundation excavating. Pre-requisite or Co-requisite: DIT 103. Lecture: 6.0 credits (90 contact hours).

Components: Lecture Attributes: Technical

HFL Healthcare Facility Management
HFL 100(3) Course ID:015593
Introduction to Healthcare Facility Management
Introduces students to Healthcare Facility Leadership by presenting an overview of the history and development of healthcare engineering. The student will learn the importance of compliance with the various codes and standards applicable to the healthcare facility environment; explore the driving factors affecting the operations and maintenance of health care facilities; review the complexity of delivering engineering in a patient centered environment; gain understanding of the complex structure and reporting relationships that exist in the healthcare industry; understand how the facility environment impacts regulatory requirements, clinical needs, and financial bottom line of healthcare; and gain an understanding of his/her role within the facility management department and the hospital setting. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 110(2) Course ID:015594
Introduction to Healthcare Industry
Introduces students to the healthcare industry by examining healthcare reporting relationships, organizational structures, personnel, facility types, department configurations, terminology, regulatory environment, and accreditation process. The course will also examine industry shifts related to an aging population and healthcare law changes. The student will have a clearer understanding of how to navigate the healthcare industry based on size and complexity. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

HFL 120(2) Course ID:015663
Infection Control and Prevention
Examines the historical and evolving infection control complexities from both a clinical and physical environment perspective. Reviews changes the industry has taken to address this growing healthcare industry challenge. Studies how the physical environment and engineering practices during construction and maintenance impact infection control. Reviews infection control risk assessments and prevention documentation and techniques. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

HFL 130(3) Course ID:015664
Compliance, Codes and Standards I
Introduces student to the various codes & standards, regulatory, and accreditation agencies in Healthcare. Takes into consideration local, state, and federal regulatory bodies such as Occupational Safety and Health Administration (OSHA), National Fire Protection Association (NFPA), Building Owners and Managers Association (BOMA), Center for Medicare and Medicaid Services (CMS), American Society for Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), International Organization for Standardization (ISO), National Electrical Code (NEC), International Building Code (IBC), The Joint Commission, and the DNV. Examines the facility leader’s role in coordination and participation in the accreditation and regulatory survey processes. Evaluates the role of a coordinator and participant in emergency management drill and training. Develops fire training and commission documentation. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 140(3) Course ID:015665
Maintenance and Operations I
Examines and reviews mechanical, electrical, plumbing, medical gas, fire protection, building envelope, medical, steam, and security systems that comprise most healthcare facilities. Reviews computer systems and software such as building automation, fire systems, work order systems, and CAD/3D/BIM used by facility engineering. Understands equipment inventory, entry control, and disposition. Develops maintenance program for buildings, equipment, utilities, and grounds. Reviews energy management and benchmarking. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 150(3) Course ID:015666
Planning, Design and Construction I
Covers project management delivery from concept, development, design, contracting, method, bidding, budgeting, equipment acquisition, specifications, and meeting management. Develops and reviews current Infection Control Risk Assessment (ICRA) practices and documentation. Develops and reviews Interim Life Safety Measures (ILSM) practices and documentation. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 230(3) Course ID:015667
Compliance, Codes and Standards II
Examines the major codes, standards and regulatory rules that apply to the healthcare industry. Examines. National Fire Protection Association (NFPA) 101, 110, 99, 52, 20, 10; Facility Guidelines Institute (FGI) Guidelines; The Joint Commission Standards for accreditation; and how to maintain standard specific documentation and checklists for accreditation surveys. Develops and maintains medical equipment and utility system programs. Develops and conducts environmental rounds and surveys. Develop standard specific policies and procedures, such as National Fire Protection Association (NFPA) 99 electrical equipment safety inspection requirements. Pre-requisite: HFL 130 Compliance, Codes and Standards I. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 240(3) Course ID:015668
Maintenance and Operations II
Examines the administration and coordination of work order processes to include preventive maintenance, corrective maintenance, moves, and projects. Applies equipment risk assessments in developing a maintenance program. Tests, monitors, and documents air quality, air exchange, and pressure relationships. Maintain control access and key control systems. Manages policies and procedures. Develops competency based training programs. Manages low voltage systems (Nurse call, Closed Circuit Television System (CCTV), patient monitoring, Radio Frequency Identification (RFID) etc.)). Understands Performance Improvement (PI) processes. Pre-requisite: HFL 140 Maintenance and Operations I. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 250(3) Course ID:015669
Planning, Design and Construction II
Examines the management, planning, monitoring, reporting, and closing out of projects. Emphasizes the management of drawing revisions, commissioning, equipment documentation, and hand off training. Details Change Order Request (COR) and Request For Information (RFI), as well as, reviewing the needs and requirements for space planning and allocation. Pre-requisite: HFL 150 Planning, Design and Construction I. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 260(3) Course ID:015670
Healthcare Facilities Leadership Capstone I

Components: Lecture Attributes: Technical

HFL 270(3) Course ID:015671
Healthcare Facilities Leadership Capstone II
Examines management of related healthcare engineering roles, such as fire safety, environment of care, waste management, emergency management, protection services, and environmental services. Examines management of Human Resource functions (e.g. competencies, disciplinary action, hiring, performance appraisals, terminations, scheduling, staff orientation, and job descriptions). Performs and participates in organizational strategic planning, SWOT (strengths, weaknesses, opportunities and threats) analysis, report writing and presentations. Examines the importance of networking and partnerships (e.g. peers, local authorities, state authorities, and industry experts). Pre-requisite: HFL 260 Healthcare Facilities Leadership Capstone I. Co-requisite: HFL 240 Maintenance and Operations II. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical
HIM 210(3) Course ID:004306
Archives Studies: Appraisal & Accessioning
This course provides an in-depth examination of the information appraisal and accession process in archives work. Topics covered include intellectual content, documentation strategies, appraisal theories, and accessioning practices. Students are expected to complete an accession record, including records transmitted form, deed of gift, and accession form. Pre-requisite: HIM 102. Lecture: 3 credits (45 contact hours). Components: Lecture

HIS 101(3) Course ID:004493
World Civilization I
Presents a multicultural survey of world cultures and global issues from ancient to medieval times. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

HIS 102(3) Course ID:004675
World Civilization II
Presents a multicultural survey of world cultures and contemporary global issues from 1600 to the present. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

HIS 104(3) Course ID:008060
A History of Europe Through the Mid- Seventeenth Century
Surveys the development of European politics, society, and culture from the beginnings of civilization through the Age of Religious Conflict. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities

HIS 105(3) Course ID:008034
A History of Europe from the Mid- Seventeenth Century to the Present
Surveys the development of European politics, society, and culture from the Age of Absolutism to the present. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities

HIS 106(3) Course ID:008532
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. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities

HIS 107(3) Course ID:008535
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. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities

HIS 108(3) Course ID:008542
History of the United States Through 1865
Examines key political, economic, and social topics that have significantly influenced the American experience from the pre-colonial period through the Civil War era. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities, Course Also Offered in Modules

HIS 109(3) Course ID:000171
History of the United States Since 1865
Examines key political, economic, and social topics that have significantly influenced the American experience from Reconstruction through the contemporary era. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities, Course Also Offered in Modules

HIS 120(3) Course ID:000348
The World at War, 1939-45
Covers a global overview of the events of the Second World War, including consideration of the conflicts military, diplomatic, political, social, and economic dimensions. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities

HIS 202(3) Course ID:000082
History of British People to the Restoration
Surveys the major political, social, economic, and cultural developments in British history from the pre-Roman era through the Stuart Dynasty. Includes examination of such topics as the Norman conquest, the Plundergenent Dynasty, the Hundred Years War, War of the Roses, the Tudors Monarchs, the Protestant Reformation, the Stuart Kings, Puritan Revolution, and the Restoration. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities

HIS 203(3) Course ID:000516
History of the British People Since the Restoration
Surveys 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, Napoleononic Wars, Industrial Revolution, Imperialism, World War I, Great Depression, World War II, Cold War, Decolonization, Post-War Britain, and the European Union. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities

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 an emphasis on pre-Columbian societies, the Iberian kingdoms in the Age of Expansion, the conquest and colonization of the indigenous cultures of the New World, the establishment of Spanish and Portuguese institutions, the relations between the Church and the State, the emergence of the hacienda, slavery and the impact of the Bourbon Reforms on Latin America. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

HIS 207(3) Course ID:008220
History of Modern Latin America, 1810 to Present
Surveys 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. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities

HIS 215(3) Course ID:015616
Historical Perspectives on Prisons and Police Work
Examines historical development of law codes, police work and prisons since the ancient world, with emphasis on the early modern period to the present. Develops an understanding of current practices in criminology, placing emphasis on the evolving conceptions of the causes of and cures for criminal behavior, and the professionalization of police and corrections personnel. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities, Other

HIS 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 pastoral and ecological interactions, the construction and reconstruction of Indian identities, U.S. Indian policy development, and forced Indian removal. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

HIS 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 pastoral and ecological interactions, the construction and reconstruction of Indian identities, the challenges of the Great Plains and the Great Basin. Assesses the U.S. Indian policy development in relation to forced Indian removal, Americanization plan, educational assault on Indian children, termination policy, and sovereignty. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

HIS 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. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities

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. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

HIS 248(3) Course ID:000654
History of Islam and Middle East Peoples, 1250 to the Present
Surveys the religion and institutions of the Islamic world in the Middle East with emphasis on the Mongol, Ottoman, Safavid, and Qajar Empires. Includes the demise of these empires, the response of the Middle East peoples to European imperialism, and the development of the Middle East since 1250. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

HIS 254(3) Course ID:000670
History of Sub-Saharan Africa
Surveys the major social, religious, cultural, economic, and political trends in Sub-Saharan African history since the 16th century. Includes the impact of the Atlantic slave trade, European imperialism, and 20th century wars on Sub-Saharan Africa. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

HIS 260(3) Course ID:000680
African American History to 1865
Studies the African American experience through the Civil War. Examines African heritage, slavery, and growth of African-American institutions. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

HIS 261(3) Course ID:000693
African-American History 1865 - Present
Examines the African American experience from Reconstruction to the present, with emphasis on the rise of segregation, the Civil Rights Movement, and race relations into the twenty-first century. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities
HIS 265(3)  Course ID:000705  
History of Women in America  
Surveys the history of American women, with particular emphasis on the mid-19th century to the present. Includes the major themes of family, work, social ideas about women, and feminism. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 266(3)  Course ID:005481  
History of American Women to 1920  
Examines the fight for women's suffrage to 1920. Includes American women, immigrant women, the changing nature of the family and work, and societal ideas about women. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Other

HIS 267(3)  Course ID:005482  
History of American Women from 1920  
Examines equal rights and the civil rights movements. Includes the rejection of feminism in the 1920s, and 1970s, the changing nature of the family and work, and societal ideas about women. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

HIS 271(3)  Course ID:005262  
Medieval Europe  
Surveys European history from the fourth century through the fifteenth century. Lecture: 3 credits (45 contact hours). Pre-requisite: Sophomore standing.  
Components: Lecture  
Attributes: AH - Arts and Humanities

HIS 295(3)  Course ID:000749  
East Asia to 1800  
Provides an overview of the East Asian region from the earliest times to 1800. Emphasizes political, economic, social, and intellectual developments. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 296(3)  Course ID:00753  
History of Asia II  
Surveys the major civilizations of Asia. Focuses on the key political, social and cultural developments of the major peoples from the beginnings of western influence in Asia to the present. Pre-requisite: Sophomore standing or consent of instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Cultural Studies, AH - Arts and Humanities

HIT 100(3)  Course ID:004260  
Introduction to Health Information Technology  
Provides an in-depth study of a selected topic/area in History. Lecture: 1-3 credits (15-45 contact hours). Pre-requisite: Sophomore standing or Consent of Instructor.  
Components: Lecture  
Attributes: Other

HIT 101(1 - 3)  Course ID:005221  
Instructor Consent Required  
Special Topics in History: (Topic)  
Provides an in-depth study of a selected topic/area in History. Lecture: 1-3 credits (15-45 contact hours). Pre-requisite: Sophomore standing or Consent of Instructor.  
Components: Lecture  
Attributes: Other

HIT 108(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

HIT 108(0.75)  Course ID:006236  
The Early Nationalist 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

HIT 108(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

HIT 109(4)  Course ID:007083  
Clinical Classification Systems I  
Applies current government-mandated diagnosis and procedure coding systems in a health care setting. Pre-requisite: HIT 105. Minimum grade C. Pre-requisite or Co-requisite: BIO 139 (if BIO 137 taken). Minimum grade C. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

HIT 110(2)  Course ID:004265  
Legal & Ethical Issues in Health Information  
Examines 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. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or Release of Information Data Specialist or by special permission of the Program Coordinator. Pre-requisite Or Co-requisite: HIT 100. Minimum grade of C+. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture  
Attributes: Technical

HIT 112(3)  Course ID:004266  
Reimbursement Methodologies  
Introduces the uses of coded data and health information reimbursement and payment systems appropriate to all health care settings including managed care. Includes a history of major U. S. insurance developments. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate or by special permission of the Program Coordinator. Pre-requisite Or Co-requisite: BIO 139 (if BIO 137 taken). Minimum grade of C. Lecture: 2.5 credits (37.5 contact hours). Lab: 0.5 credits (15 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

HIT 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. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or by special permission of the Program Coordinator. Pre-requisite Or Co-requisite: HIT 109 and HIT 110. Minimum grade of C. Pre-requisite Or Co-requisite: HIT 105. Minimum grade of C. Lecture: 2.5 credits (37.5 contact hours). Lab: 0.5 credits (15 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

HIT 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. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or by special permission of the Program Coordinator. Pre-requisite Or Co-requisite: BIO 139 (if BIO 137 taken). Minimum grade of C. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical
HIT 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 210. Minimum grade of C. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HIT 207(3) Course ID:007085
Clinical Classification Systems III
Introduces the advanced application of clinical classification systems in the reimbursement for health care services and specialty systems such as RBRVS, OASIS, RUGs, Cancer Registry, etc. Reviews fraud, abuse, and regulatory agency requirements relating to coding and billing. Pre-requisite: HIT 109 and HIT 202. Minimum grade of C. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 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
Attributes: Technical

HIT 215(4) Course ID:007087
Clinical Practicum
Introduces the student to the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Observes and assists personnel in assigned areas of job responsibility within the HIM Department. Provides student with onsite project. Exposes student to HIM roles in other departments (e.g., quality, CDM, Cancer Registry, compliance, risk management). Pre-requisite: (HIT 200 and HIT 202 and HIT 204. Minimum grade of C) or Consent of Program Coordinator. Practicum: 4.0 credits (180 contact hours).
Components: Practicum
Attributes: Course Also Offered in Modules, Technical

HIT 299(0.5 - 4) Course ID:007090
Selected Topics in Health Information Technology: (Topic)
Addresses various health information technology topics, issues, and trends. Includes topics that may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of four credits. Lecture: 0.5 - 4.0 credits (7.5 - 60.0 contact hours). Lab: 0.5 - 4.0 contact hours (15-20 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 2151(2) Course ID:007088
Clinical Practicum I
Continues the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Provides observation and assists personnel in assigned areas of job responsibility within the HIM Department. Pre-requisite: (HIT 200 and HIT 202 and HIT 204. Minimum grade of C) or Consent of Program Coordinator. Practicum: 2.0 credits (90 contact hours).
Components: Practicum

HIT 2152(2) Course ID:007089
Clinical Practicum II
Introduces the student to the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Provides observation and assists personnel in all assigned areas of job responsibility within the HIM Department. Pre-requisite: (HIT 200 and HIT 202 and HIT 204. Minimum grade of C) or Consent of Program Coordinator. Practicum: 2.0 credits (90 contact hours).
Components: Practicum

HMS Human Services

HMS 101(3) Course ID:000901
Human Services Survey
Examines community human service agencies regarding their organization, service delivery system, staffing patterns, and funding sources. Explores the origin and development of the social welfare system as well as social welfare policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 102(3) Course ID:000777
Values of Human Services in a Contemporary Society
Examines the values and ethics of human service professions. Encourages a personal philosophy of client intervention, including the development of a professional value base, achieved through the examination of major social problems and issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 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. Pre-requisite: (HMS 101 and HMS 102 with a grade of "C" or better) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 104(3) Course ID:000867
Group Dynamics for Human Services
Covers group techniques in clinical or agency settings based on various theoretical models with emphasis on the leadership role, phases of group development, and interaction within the group. Pre-requisite: HMS 103 with a grade of "C" or better or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 200(3) Course ID:000784
Dynamics of Human Behavior
Includes an historic view of theories of personality development, maladaptive behavior, knowledge of treatment, techniques of adjustment and social implications. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 210(3) Course ID:000617
Drugs, Society, & Human Behavior
Covers the nature and progression of chemical abuse and dependency, and effects on the individual, family, and society. Includes strategies for prevention, intervention, and treatment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 211(3) Course ID:000583
Introduction to Addictions
Provides an overview of approaches to understanding addictions with emphasis on the bio-psycho-social model. Analyzes the etiology, progression, and processes involved in change. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 212(3) Course ID:000585
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. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 220(3) Course ID:000588
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
Attributes: Technical

HMS 233(3) Course ID:000818
Teaching Persons with Mental Retardation
Introduces mental retardation with emphasis on understanding and teaching the mentally retarded. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 240(3) Course ID:017205
Service Coordination for Human Services Professionals
Provides students with experience utilizing techniques and skills used in human services, as well as the theories behind these techniques and skills. Explores skills related to service delivery, behavior management, and supportive services with different populations, including adults, children, families, individuals with mental impairments, mental illnesses, and/or developmental disabilities. Demonstrates skills and techniques including therapeutic communication, interviewing clients, treatment planning, goal setting, documentation & record keeping, crisis intervention, and addressing ethical dilemmas. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 245(3) Course ID:016148
Psychiatric Mental Health Technician
Prepares students for employment as psychiatric aides or psychiatric technicians. Includes a review of nursing assistant skills, psychopathology, DSM diagnostics, strengths perspective, bio-psycho-social assessments, and psychotropic medications. Explores the responsibilities of mental health technicians who work under the supervision of a psychiatrist, registered nurse, or social worker; as well as participate in the development and implementation of therapeutic treatment plans for persons with mental disorders; particularly those receiving treatment in an inpatient setting. Pre-requisite: NAA 100 or NNA 100, PSY 110 and HMS 103 with a grade of "C" or better or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 249(4) Course ID:016837
Foundational Skills in Para-Professional Practice
Applies principles and skills previously learned in the Human Services courses to develop proficiency related to interviewing, data collection, assessment, goal development, contracting and documentation. Prepares students for work at the Bachelors in Social Work level. Pre-requisite: HMS 104. Lecture: 4.0 credits.
Components: Lecture
Attributes: Technical
HMS 251(3)  Course ID:017207
Clinical Practices in Human Services
Provides practice and application of principles and skills previously learned in Human Services courses in community agencies. Pre-requisite: HMS 101, HMS 102, HMS 103, HMS 104. Lecture: 1 credit hour (15 contact hours). Clinical: 2 credit hours (120 contact hours).
Components: Clinical, Lecture
Attributes: Technical

HMS 255(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
Attributes: Technical

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. Pre-requisite: Admission in the Honors program. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

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. Pre-requisite: Membership in the Honors Program. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HON 102(3)  Course ID:000766
The Medieval and Renaissance World
From the Middle Ages through the Reformation: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Written assignments required. Pre-requisite: Membership in the Honors Program. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and 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. Pre-requisite: Membership in the Honors Program. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and 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. Pre-requisite: Membership in the Honors Program. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HOS 100(3)  Course ID:002365
Introduction to Hospitality Management
Introduces an overview of the hospitality industry. Examines the historical perspective and tracks current events. Examines the structure of the industry including chains, franchising, ownership, and management. Explores the inner workings of various components of lodging, foodservice and entertainment organizations. Demonstrates real-world application through industry examples and case studies which are used extensively. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HOS 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
Attributes: Technical

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
Attributes: Technical

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
Attributes: Technical

HOS 282(3)  Course ID:002370
Tourism Marketing
Examines how and why tourists make destination choices, and the research that leads to the development of strategies for marketing destination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

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

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

HRS 101(3)  Course ID:000895
Instructor Consent Required
An Integrated Survey of Western Civilization I
An honors course designed to provide an opportunity for the interested student to study the development of Western Civilization as reflected in the literary, artistic, musical, philosophical, political, and economic developments and movements of the major western cultures from ancient times through the Roman Empire. Lecture: 3 hours. Pre-requisite: Consent of instructor.
Components: Lecture
Attributes: AH - Arts and Humanities

HRS 200(3)  Course ID:000765
Independent/Guided-Study Project
Students wishing to engage in an approved, valid research/ study project may receive academic credit 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: Variable; Laboratory: Variable. Pre-requisite: Superior academic ability as demonstrated by tests, classroom, and interviews.
Components: Laboratory, Lecture
Attributes: Other

HRT 150(3)  Course ID:001543
Horticulture Business Management
This course introduces various career opportunities in a garden center and focuses on salesmanship and business practices utilized in this environment. Identification of characteristics, usage and care of woody ornamentals, annual and perennial plants, as well as use and care information needed by the consumer is included. Assisting customers in choosing chemical pesticides and plant related products is discussed. Lecture: 3 credits (45 contact hours).
Components: Lecture

HSE 101(1)  Course ID:002221
Introduction to Health Sciences
Provides students with information and career options about allied health and sciences programs including presentations by allied health practitioners. Students will research selected health professions/careers and allied health and sciences educational programs. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical
HST Health Care Foundations

HST 101(3) Course ID:0087362
Health Care Basic Skills I
Introduces students to the basics of 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: 3 credits (45 contact hours). Clinical: 0.5 credits (23 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

HST 122(3) Course ID:007366
Clinical Pathophysiology
Explores an introduction to the nature of disease and its effect(s) on body systems. Provides a study of pathology and general health management of diseases and injuries across the lifespan. Includes topics of etiology, symptoms, physical and psychological reactions to diseases and injuries. Pre-requisite: BIO 137 or BIO 135. Lecture: 3 credits (45 contact hours).

Components: Lecture Same As Offering: HST 122 Attributes: Technical

HUM Humanities

HUM 120(3) Course ID:000350
Introduction to the Humanities
Introduces students to at least five disciplines in the humanities, such as art, literature, dance, drama, music, architecture, religion, and mythology. Explores distinctions and relationships between the disciplines through study of their basic methods, themes, and forms. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

HUM 121(3) Course ID:004906
Peace Studies
This interdisciplinary course is intended as a general introduction to the nature, scope, and methodology of Peace Studies, with a view toward the future. It will explore the history of non-violent movements to effect social change, the role of women in the attainment of peace and protection of life, the tie between social justice and the environment, and the resolution of conflict between individuals, groups, societies, and nations. The course includes the study of activists such as Dr. Martin Luther King, Jr., Gandhi, and Dorothy Day. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 135(3) Course ID:000582
Introduction to Native American Literature
Introduces the study of the oral and written literature of Native American peoples, emphasizing the cultural and historical context in which it was composed. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 140(3) Course ID:006814
Introduction to Latino Literature
Analyzes literary texts and other artistic expressions to reveal aspects of Latino cultures such as identity, immigration, indigeneity; relates literary developments and movements to the cultural, political, and religious experiences of Latinos in the U.S.; examines connections between minority writing and mainstream literary works. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 150(3) Course ID:005430
Introduction to African Literature
Presents a cross-cultural and historical approach to the oral and written works by major Black writers of Africa. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 160(3) Course ID:007110
Introduction to Holocaust Literature and Film
Analyzes literary texts, memoirs, film, and other artistic expressions of the Holocaust to focus on the cultural and political events that caused the Holocaust; examines how subsequent people represent what happened; explores the consequences of the Holocaust in terms of ethical and human rights issues; examines how issues of racism and religious intolerance occurred prior to and since the Holocaust; addresses the Holocaust in a comparative perspective to prior and subsequent acts of genocide in other countries. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 202(3) Course ID:000841
Survey of Appalachian Studies I
Presents an inter-disciplinary introduction to Appalachian history, economy, geography, politics, and culture, primarily through exploration of texts about the region, including fiction, non-fiction, and poetry. Emphasizes geography, Appalachian identity, works, values, and communication. May also include exploration of regional music, traditional arts, drama, photography, film, and, where applicable, community-based explorations of the Appalachian experience. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 203(3) Course ID:000518
Survey of Appalachian Studies II
Presents an inter-disciplinary introduction to Appalachian history, economy, 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, SB - Social Behavior Science

HSM Homeland Security

HSM 100(3) Course ID:005518
Introduction to Homeland Security
Introduces the history and organizational development of the US Department of Homeland Security. Examines the roles and functions of the components of Homeland Security and their relationships to state and local agencies. Investigates current trends and career opportunities in homeland security. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

HSM 110(3) Course ID:005519
Introduction to Emergency Management
Introduces the field of emergency management and the incident command system, including the terminology and definitions used in emergency and disaster management. Examines four phases of emergency management and disaster planning: mitigation, response, recovery, and preparedness. Examines legal requirements, responsibilities, and laws pertaining to emergency management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

HSM 225(3) Course ID:005780
Ethical and Legal Issues in Homeland Security
Examines the ethical and legal issues in the administration of Homeland Security and its efforts to combat terrorism. Examines the legal powers and ethical standards entrusted in the personnel empowered with the implementation of the issues of Homeland Security. Provides an opportunity to demonstrate knowledge of the ethical and legal complexities and dilemmas involved in the establishment and enactment of policies pertaining to Homeland Security. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical
HUM 204(3) Course ID:009812
Appalachian Seminar
Examines in detail one or more issues pertinent to the Appalachian region. Topics may include but are not limited to: cultural diversity, religious expression, politics and government, trends in Appalachian literature, or trends in regional sociological scholarship. Topics may vary from semester to semester. This course may be repeated once for credit with a different topic. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 207(3) Course ID:007049
American Seminar: Topic
Examines issues pertinent to American culture and identity through an interdisciplinary and multi-cultural approach. Includes topics such as cultural diversity, religious expression, politics and government, trends in art, literature, and/or music, political life, media representation, trends in social science which may vary from semester to semester. Course may be repeated once for additional credit when the repeat offering covers a different topic than the initial course offering. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

HUM 220(3) Course ID:005532
Historical Perspectives on Peace and War
Provides an introduction to the history of violence and peace movements. Examines the anthropological, political, cultural and technological forces contributing to the frequent occurrence of war throughout history. Examines the history of movements and organizations, both religious and secular, intended to minimize warfare and oppression. Examines literature and visual arts to enhance and elaborate on the themes presented in the anthropological and historical sections of the course. Sophomore standing or consent of instructor. Pre-requisite: Sophomore Status. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HUM 230(3) Course ID:000374
Contemporary Japanese Literature and Culture in Translation
Presents traditional and contemporary aspects of Japanese culture as reflected in both cultural studies and literature. Examines daily life as revealed in the themes and motifs of Japanese fiction, poetry, drama, and film. Pre-requisite: ENG 102 or ENG 105 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 250(3) Course ID:005923
Appalachian Literature Survey
Surveys significant texts about Appalachia from native populations and early European settlement to the end of the twentieth century. Emphasizes texts by writers living and working in the region, though perspectives from outside of the region may be examined. Focuses on historical, social, political, and cultural contexts, as well as analysis of literary forms and techniques. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 251(3) Course ID:005924
Contemporary Appalachian Literature
Examines significant texts by Appalachian writers of the last twenty-five years. Emphasizes the development of contemporary Appalachian literary voice and identity. Examines connections or challenges to "traditional" Appalachian heritage and cultural identity. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and 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

HUM 282(3) Course ID:006541
International Film Studies
Examines significant texts by Appalachian writers of the last twenty-five years. Emphasizes the development of significant texts by Appalachian writers of the last twenty-five years. Emphasizes the development of a broad range of societies. Includes critical analysis and interpretation of films from various cultures. Explores the films' origins of country and the cinematic impacts upon the society and the world. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: ENG 282
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 299

IEC Interdisciplinary Early Childhood
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 twenty (20) hours of required field experience. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 102(3) Course ID:004087
Foundations of Early Childhood Education
Focuses on creating an environment and curricula that support cognitive, physical, creative, language, social, and emotional development of infants, toddlers, and preschoolers. Presents knowledge of appropriate child assessment, ethical decision-making in the early childhood profession and accommodations for children with disabilities. Includes ten (10) hours of required field experiences. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 120(3) Health, Safety and Nutrition
Course ID:004131
Examines the components and skills necessary for maintaining a healthy and safe environment for young children. Lecture: 3 Credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 130(3) Early Childhood Development
Introduces child development in health, safety, nutrition, and social and emotional development of children beginning with conception. Includes methods of observation that are practiced during field experiences. This course requires ten (10) hours of field experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 170(3) Observation and Assessment
Introduces child development in the physical, language, cognitive, social and emotional development of children. Includes ten (10) hours of field experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 180(3) Approaches to Early Childhood Education
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 ten (10) hours of field experience. Pre-requisite: IEC 101 or IEC 102 or IEC 130 or permission of IEC program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 200(3) Child Guidance
Examines appropriate methods for guiding children and promoting the development of prosocial behaviors. This course requires ten (10) hours of field experience. Pre-requisite: IEC 101 or IEC 130 or permission of the IEC program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 210(3) Families and Communities in Early Childhood Education
Examines community programs that focus on forming partnerships with families to support child development and family well-being. Builds an awareness of the 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
Attributes: Technical

IEC 216(3) Course ID:004135
Literacy and Language in IEC
Examines the interaction of language therapy and instruction techniques and the resulting effect on language and literacy development. This course requires five (5) hours of required field experience. Pre-requisite: IEC 180 or permission of the IEC program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 221(3) Creative Expressions in IEC
Course ID:004136
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. This course requires five (5) hours of field experience. Pre-requisite: IEC 180 or permission of the IEC program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 230(3) Business Administration of ECE Programs
Course ID:004569
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. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 235(3) Introduction to Inclusive Education
Course ID:004137
Examines the societal factors that impact programming for children with various abilities. Includes critical analysis and interpretation of films from various cultures. Explores the history of children with special needs and accommodations for children with disabilities. Includes ten (10) hours of field experience. Pre-requisite: IEC 180 or permission of the IEC program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
IEC 240(3) Course ID: 004138
Administration of Early Childhood Education
Focuses on the administrative responsibilities of creating and implementing education programs for children and their families with an emphasis on the administrative, organizational, and legal responsibilities in operating early childhood programs. Includes ten (10) hours of required field experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 248(3) Course ID: 004139
Sciences and Math in IEC
Applies the concepts and principles of science, social studies, mathematics, and health in learning experiences for young children. Includes five (5) hours of required field. Pre-requisite: IEC 180 or permission of IEC program coordinator. Lecture. 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 250(3) Course ID: 004089
School Age Child Care
Provides the student with specialized knowledge, skills, and abilities for working with school age children. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 268(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 ten hours of required field experience, which may be waived by the IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IEC 291(3) Course ID: 004141
Instructor Consent Required
IEC Practicum/Cooperative Education
Requires participation in supervised teaching experiences in early childhood settings where practical skills are applied. Includes observing, planning, implementing and assessing learning experiences based on developmentally appropriate practices. Required: One hundred and eighty (180) field hours of experience. Pre-requisite: Program Coordinator’s Approval. Practicum: 3.0 credits (180 contact hours/ratio 60:1).
Components: Practicum
Attributes: Technical

IES International Exchange Student
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. Pre-requisite: IES 233. Practicum: 1-3 credits (60-180 contact hours).
Components: Practicum
Attributes: Technical

IET Integrated Engineering Technology
IET 102(2) Course ID: 007134
Preventive Maintenance
Introduces how routine work is done to keep equipment in good working order and to optimize its efficiency and accuracy. Addresses regular routine cleaning, lubricating, testing, checking for wear and tear and eventually replacing components to avoid breakdown. Introduces students to the various types and styles of predictive and preventive maintenance components, principles, and practices used in industrial applications. Lecture/Lab: 2.0 credits (40.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 104(2) Course ID: 007137
Blueprint Reading/Schematics
Introduces the fundamental information in drafting necessary to retrieve read, manipulate and understand a mechanical part print. Introduces students to recognize, identify, describe, and relate the components used in schematics, along with their symbols and connectors, to describe electrical, electronics, pneumatics, hydraulics, and piping circuits, as well as welding and joining symbols interpretation. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 107(3) Course ID: 007140
Basic Electricity/Electronics
Introduces the various elements of basic electricity including the identification of electrical symbols as well as interpretation of schematics, cross referencing prints, tracing circuits, interpreting sequential function charts, line drawings and time charts. Introduces the student to electrical measurement instruments, including digital and analog multimeters, clamp-on ammeters, megohmmeters, and the oscilloscope. Concentrates on control logic components and circuit function. Introduces the student to solid state devices and applications. Lecture/Lab: 3.0 credits (67.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

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, Technical

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 slings 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, Technical

IET 130(5) Course ID: 016096
Lean Manufacturing
Instructs the students in the basic concepts of a safety culture and hazard prediction training. Introduces the fundamental 5S process, the Toyota Production System for Maintenance, the Toyota Problem Solving method, the Toyota Drive and Dedication model, and the Toyota Maintenance Reliability Process and Reliability Centered Maintenance Analysis. Lecture: 5.0 credits (75 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

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 systems, and relate the components used in 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, Technical

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 (109.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

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, robotic motion 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, Technical

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 servo motors, 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, Technical

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

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

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
Components: Lecture

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

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

IET 1072(0.3) Course ID: 007142
Instruments
Introduces electrical measurement instruments, including digital and analog multimeters, clamp-on ammeters, megohmmeters, 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

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

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

IET 1081(0.5) Course ID: 007146
Basic Mechanical Power Systems
Introduces the basic concepts of mechanical power transmission. Addresses the principles 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

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. Covers the use of belts, chains, sprockets and other types of flexible drives. Lecture/Lab: 0.3 credit (7.5 contact hours).

Components: Lecture

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

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

IET 1085(0.2) Course ID: 007150
Brakes and Clutches
Introduces various types and styles of braking systems and clutch components used in industrial applications. Lecture/Lab: 0.2 credits (4.5 contact hours).

Components: Lecture

IET 1086(0.7) Course ID: 007151
Gears and Cams
Introduces various types and styles of gears and cam follower components used in industrial applications. Lecture/Lab: 0.7 credits (13.5 contact hours).

Components: Lecture

IET 1091(0.7) Course ID: 007153
Basic OSHA Safety
Introduces OSHA and the OSHA regulations that apply to the manufacturing industry. Lecture/Lab: 0.7 credits (12 contact hours).

Components: Lecture

IET 1092(0.4) Course ID: 007154
Hoists and Cranes
Introduces the basic concepts and safety rules and issues related to the use of overhead cranes and hoists. Lecture/Lab: 0.4 credit (6 contact hours).

Components: Lecture

IET 1093(1.2) Course ID: 007155
Rigging Awareness & Fundamentals
Introduces the basic concepts and safety rules and issues related to the use of rigging equipment, attachment components, calculating sling angle stresses, and safe lifting and turning loads. Lecture/Lab: 1.2 credits (25.5 contact hours).

Components: Lecture

IET 1094(0.7) Course ID: 007156
First Aid, CPR, & AED
Provides knowledge and skills necessary to help sustain life and minimize the consequences of injury or sudden illness until advanced medical help arrives. Includes first aid, CPR and AED lessons to meet the various training needs of those in workplace, school or community settings. Lecture/Lab: 0.7 credits (16.5 contact hours).

Components: Lecture

IET 1101(0.5) Course ID: 007158
Introduction to Arc Welding
Introduces the power sources used in shielded metal arc welding (SMAW) and gas metal arc welding (GMAW), along with equipment and filler metals used to produce a welded joint and welding principles along with the metallurgy of steel and welding. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

IET 1102(1.6) Course ID: 007163
SMAW/ Stick Welding
Introduces shielded metal arc welding (SMAW) safety and shielded metal arc welding (SMAW) processes including flat, horizontal, vertical, and overhead welding techniques. Lecture/Lab: 1.6 credits (45 contact hours).

Components: Lecture

IET 1103(0.9) Course ID: 007164
Gas Metal Arc Welding
Provides knowledge of theory, safety practices, equipment and techniques required for gas metal arc welding (GMAW) including different transfer methods and position welding. Lecture/Lab: 0.9 credits (25.5 contact hours).

Components: Lecture

IET 1104(1) Course ID: 007165
Welding and Fabrication
Introduces oxy-fuel welding and cutting, including safety setup and maintenance of oxy-fuel welding and cutting equipment. Includes cutting, brazing, and welding techniques. Lecture/Lab: 1.0 credits (22.5 contact hours).

Components: Lecture

IET 1201(0.1) Course ID: 007167
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 credit (1.5 contact hours).

Components: Lecture

IET 1202(0.6) Course ID: 007168
Turning
Introduces safe operation of lathes, primarily engine and tool room lathes. Addresses various types of lathes used in industry, their component parts, and associated safety precautions. Emphasizes the most common lathe operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.6 credits (16.5 contact hours).

Components: Lecture

IET 1203(0.8) Course ID: 007169
Milling
Introduces safe operation of milling machines, primarily vertical milling machines. Addresses the various types of milling machines used in industry, their component parts, and associated safety precautions. Emphasizes the most common milling operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.8 credits (22.5 contact hours).

Components: Lecture

IET 1204(0.5) Course ID: 007170
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

IET 1205(0.4) Course ID: 007171
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

IET 1206(0.7) Course ID: 007172
Hand and Power Tools
Introduces safe and effective use of hand and power tools. Emphasizes the application of the most common tools used by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.7 credits (16.5 contact hours).

Components: Lecture

IET 1207(0.9) Course ID: 007390
Measuring and Layout Tools
Introduces measuring and layout tools commonly found in industrial environments. Emphasizes the safe application of the most common tools used by multi-skilled industrial maintenance technicians. Lecture: 0.9 credits (21 contact hours).

Components: Lecture

IET 1301(1) Course ID: 016097
Safety Culture
Introduces the importance of cultivating daily safe work habits and the predictable negative results of not being safety conscious in the work place. Instructs the students in basic safety culture and prepares them to participate in, conduct, and lead safety walk-throughs. Introduces the student to Kiken Yoshi Training (KYT) or Hazard Prediction Training. Prepares the student to conduct risk assessment activities, construct safety boards, and formulate individual safety commitments. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
IET 1302(1) Course ID: 016098 5S
Introduces the fundamental concepts of fluid power. Covers the principles of fluid power, such as advantages, disadvantages, and safety aspects. Introduces various fluid power components, such as pumps, valves, and actuators. Components: Lecture

IET 1303 (1) Course ID: 016099
Total Production Management
Introduces the principles of total production management. Focuses on the integration of facility layout, process design, and scheduling. Components: Lecture

IET 1304 (1) Course ID: 016100
Problem Solving
Introduces problem-solving techniques and tools. Focuses on the development of problem-solving skills through case studies and exercises. Components: Lecture

IET 1305 (1) Maintenance Reliability
Introduces the principles of maintenance reliability. Focuses on the development of maintenance strategies and the evaluation of maintenance effectiveness. Components: Lecture

IET 1306 (1) Electrohydraulics/Pneumatics Fundamentals
Introduces the fundamental concepts of electrohydraulics and pneumatics. Focuses on the development of a solid understanding of the basic principles and applications. Components: Lecture

IET 1307 (1) Valves
Introduces the fundamental concepts of valves. Focuses on the development of a solid understanding of the basic principles and applications. Components: Lecture

IET 1308 (1) Systems Troubleshooting
Introduces troubleshooting techniques and tools. Focuses on the development of troubleshooting skills through case studies and exercises. Components: Lecture

IET 1309 (1) Sensors and Photoeyes
Introduces the principles of sensors and photoeyes. Focuses on the development of a solid understanding of the basic principles and applications. Components: Lecture

IET 1310 (1) Robot and Preventive Maintenance
Introduces the principles of robot and preventive maintenance. Focuses on the development of skills in managing robotic systems and preventive maintenance practices. Components: Lecture

IEX 291(1) Course ID: 001577
Special Problems I
This course is designed for the student who has demonstrated specific needs. Pre-requisite: Permission of Instructor. Components: Laboratory

IEX 295(3) Course ID: 001577
Error Codes & Troubleshooting
Introduces the principles of error codes and troubleshooting. Focuses on the development of troubleshooting skills through case studies and exercises. Components: Lecture

IEX 295(3) Course ID: 001577
Error Codes & Troubleshooting
Introduces the principles of error codes and troubleshooting. Focuses on the development of troubleshooting skills through case studies and exercises. Components: Lecture

IEX 295(3) Course ID: 001577
Error Codes & Troubleshooting
Introduces the principles of error codes and troubleshooting. Focuses on the development of troubleshooting skills through case studies and exercises. Components: Lecture

IEX 295(3) Course ID: 001577
Error Codes & Troubleshooting
Introduces the principles of error codes and troubleshooting. Focuses on the development of troubleshooting skills through case studies and exercises. Components: Lecture

IEX 295(3) Course ID: 001577
Error Codes & Troubleshooting
Introduces the principles of error codes and troubleshooting. Focuses on the development of troubleshooting skills through case studies and exercises. Components: Lecture

IEX 295(3) Course ID: 001577
Error Codes & Troubleshooting
Introduces the principles of error codes and troubleshooting. Focuses on the development of troubleshooting skills through case studies and exercises. Components: Lecture

IEX 295(3) Course ID: 001577
Error Codes & Troubleshooting
Introduces the principles of error codes and troubleshooting. Focuses on the development of troubleshooting skills through case studies and exercises. Components: Lecture

IEX 295(3) Course ID: 001577
Error Codes & Troubleshooting
Introduces the principles of error codes and troubleshooting. Focuses on the development of troubleshooting skills through case studies and exercises. Components: Lecture
IMD Information and Design

IMD 100(3) Course ID:004764
Digital Information & Communication Technologies
Introduces digital and communication technologies. Examines hardware, operating systems, networking, applications, telecommunications, digital security, ethics, and social media. Emphasizes social media practices and trends for practical daily users. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Digital Literacy

IMD 115(3) Course ID:004765
Introduction to Graphic Design
Introduces theory, concepts, and techniques required in graphic design. Includes an introduction to layout, color theory, and print processes. Reduces pre-press, printing, other production techniques and distribution. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IMD 124(3) Course ID:016264
Introduction to Game Development
Presents an overview of the game development process including game development history, platforms, goals, genres, players, story and character development, gameplay, levels, interfaces, audio, development processes, development team roles, marketing, and maintenance. Provides opportunities to play and analyze games and to complete portions of game designs. Pre-requisite: CISC105 OR IMD100 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture, Course Equivalents: CIT 124 Attributes: Technical

IMD 126(3) Course ID:004781
Introduction to Desktop Publishing
The use of microcomputers for designing and producing various publications is introduced. Hands-on experience is provided in using desktop publishing software and a laser printer to produce high-resolution publications, such as flyers, brochures, business forms, and newsletters. Students are also introduced to basic design techniques, type and graphics layout, and the related terminology. Pre-requisite: IMD 100 or equivalent skills. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IMD 127(3) Course ID:005044
Vector Design with Adobe Illustrator
In this course, students will be introduced to and develop vector (line-based) graphics using industry-standard application(s). Topics covered will include examining the theory behind vector graphics, investigating the advertising and print industry's use of this type of graphic, creation of graphics from simple to increasingly complex, as well as development of a portfolio of vector art. Pre-requisite: IMD 115 or concurrent or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IMD 128(3) Course ID:005045
Raster Design with Adobe Photoshop
Introduces raster (photo or pixel-based) graphics using industry-standard application(s). Covers the theory behind raster graphics, investigating the advertising and print industries' use of this type of graphic, creation and manipulation of raster-based graphics from simple to increasingly complex, the use of Photoshop in web design, video editing and compositing with Photoshop, as well as development of a portfolio of raster art and photo editing and manipulation samples. Pre-requisite: IMD 100 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IMD 133(3) Course ID:005046
Beginning Web Design
Introduces the creation and publication of a web site and covers extensible hyperertext 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 credits (45 contact hours).
Components: Lecture Attributes: Technical

IMD 180(3) Course ID:004786
Intermediate Web Design
Utilizes content management systems (CMS) for web design with an emphasis on custom theme development. Instructs students in basic CMS setup, administration, and theme design. Utilizes HTML, CSS, and photo-editing software within a CMS. Identifies fundamentals including website layout, navigation, font usage, grid systems, site architecture, with emphasis on creating websites that effectively communicate the desired content for employers and clients. Pre-requisite: IMD 133 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IMD 210(3) Course ID:004787
Microsoft Office Applications
Presents advanced skills utilizing Microsoft Office applications for the creation, manipulation, and integration of information. Examines applications including word processing, spreadsheet, database management, and presentation. Pre-requisite: IMD 100 OR Digital Literacy Course OR Instructor Consent. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IMD 221(3) Course ID:016265
Computer Graphics
Introduces computer graphics with an emphasis on graphics for game design. Instructs students in practical aspects of graphics such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Pre-requisite: CIT 105 OR IMD100 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Course Equivalents: CIT 221 Attributes: Technical

IMD 222(3) Course ID:016266
3D Modeling for Video Games
Instructs students in the use of industry-standard 3D modeling software specific to the video-game industry. Emphasizes both architectural and character modeling. Familiarizes the student with key 3D modeling concepts and methods, workflow, and the creation and preparation of 3D assets for use specifically in a video-game motion. Allows students to acquire the necessary skills and techniques to integrate audio with their animations using basic sound-engineering software and processes. Lecture: 3 credits (45 contact hours).
Components: Lecture Course Equivalents: CIT 223 Attributes: Technical

IMD 223(3) Course ID:016267
3D Animation for Video Games
Exposes students to the specialized process of animating 3D assets for gaming applications. Familiarizes students with animating both organic and inorganic assets, lighting scenes, rendering and producing cut-scenes, and preparing character assets for in-game motion. Allows students to acquire the necessary skills and techniques to integrate audio with their animations using basic sound-engineering software and processes. Lecture: 3 credits (45 contact hours).
Components: Lecture Course Equivalents: CIT 223 Attributes: Technical

IMD 224(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 technologies. Pre-requisite: IMD 126 and IMD 127 and IMD 128. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IMD 228(3) Course ID:006833
Advanced Photoshop
Introduces advanced techniques for manipulating and editing raster (photo or pixel-based) graphics using industry-standard application(s). Examines new software features, advanced methods for file optimization and color correction, making complex selections and combining multiple images to create works of art, as well as development of a professional portfolio of raster art and photo editing and manipulation samples. Pre-requisite: IMD 115 and IMD 128. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
IMD 230(3)  
Course ID:004793  
Advanced Web Design  
Explores existing and emerging web technologies through the role of web designers. Covers HTML, CSS and content management systems (CMS) for responsive web design. 
Instructs students in responsive website development using HTML, CSS and photo-editing software. Students will conclude the course via the creation of a comprehensive, dynamic, responsive website utilizing current technologies. 
Pre-requisite: IMD 180 or consent of instructor. Lecture: 3 credits (45 contact hours). 
Components: Lecture 
Attributes: Technical

IMD 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. Pre-requisite: IMD 133 or consent of instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture 
Attributes: Technical

IMD 250(3)  
Course ID:005050  
Digital Video Editing I  
Covers the essentials of digital video within cinematic arts, including logging, capturing, editing, and basic compositing. Students will capture and edit digital video using industry-standard desktop video software and export to D2V 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. 
Pre-requisite: IMD 100 or consent of instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture 
Attributes: Technical

IMD 255(3)  
Course ID:007327  
Digital Video Editing II  
Covers advanced techniques within cinematic arts and editing such as multi-cam editing, color correction, advanced 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. 
Pre-requisite: IMD 250 or consent of instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture 
Attributes: Technical

IMD 258(3)  
Course ID:007328  
Visual Effects for Video  
Covers the creation of visual effects in cinematic arts including basic animation with text and 2D objects and 3D object creation and animation using an industry-standard visual effects software program. Students will focus on animating layers and working with masks, distortion, color correction, motion stabilizing, and particle simulation. Projects will be exported and packaged for the web and DVD. 
Pre-requisite: IMD 250 or consent of instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture 
Attributes: Technical

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, preparing interview techniques, and professional presentations. 
Pre-requisite: sophomore status & preparing for job search. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture 
Attributes: Technical

IMD 271(1 - 3)  
Course ID:004797  
Instructor Consent Required  
Internship  
Requires a minimum of 40 clock hours per credit hour of on-the-job experience to include a learning plan agreed upon by the student, instructor, and site supervisor. 
Pre-requisite: Consent of Instructor, 2.0 GPA, IMD 270 and the completion of 9 additional credit hours of IMD course work. 
Practicum: 1.0 -3.0 credits (40-120 contact hours). 
Components: Practicum 
Attributes: Technical

IMD 273(3)  
Course ID:016269  
Game Production  
Provides students with the opportunity to produce a fully playable 3D video game using assets and materials created in previous courses; employs an industry-standard game engine to model 3D content, audio, narrative, character, and environment into a professional and enjoyable video game experience. 
Pre-requisite: (CIT 222 OR IMD 222) AND (CIT 272 OR IMD 272)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture 
Course Equivalents: CIT 273

IMD 274(3)  
Course ID:016270  
Seminar in Game Development  
Encompasses the three phases of game design and development: conception, creation, and marketing in this project-oriented seminar. Requires participation in class presentations, individual and group projects, development of a game, and a portfolio. 
Pre-requisite: (CIT 223 OR IMD 223) AND (CIT 273 OR IMD 273) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture 
Course Equivalents: CIT 274

IMD 275(3)  
Course ID:004798  
Information Management and Communications  
Introduces management principles and techniques as they apply to various types of businesses. Includes research emphasis on information management, team concepts, personnel management, communications and business plans. 
Explores concepts within freelance, small business, and corporate entities. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture 
Attributes: Technical

IMD 277(3)  
Course ID:006837  
Typography  
Explores the use of typography in the context of graphic design and discover the importance of type as a tool for visual problem solving and communication. 
Explores origins of typography, font usage, the anatomy and different kinds of type, software used for type manipulation, and how basic principles and elements of design (color, hierarchy, form, rhythm, etc.) are applied to typography. 
Requires the development of portfolio of individual typography-based designs. 
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 
Attributes: Technical

IMD 280(3)  
Course ID:004799  
Portfolio Practicum: Graphic Design  
Provides an opportunity to assemble a comprehensive graphic design portfolio using skills learned within the IMD Graphic Design core courses, which will assess students overall graphic design skills. 
Provides IMD students with a professional design portfolio to aid in the search for employment. 
Requires a comprehensive web site design portfolio using skills learned in the IMD Web Design core courses to assess students’ overall skills learned in the web design option. 
Pre-requisite: IMD 133, 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture 
Attributes: Technical

IMD 290(3)  
Course ID:005779  
Photography  
Teaches students basic photography principles and skills to compose technically proficient photographs. 
Emphasis is on basic camera operations, with exploration of film speeds, apertures, and shutter speeds. 
Explores composition and elements of lighting. Uses slide lectures, a brief overview of contemporary photography to acquaint students with past and current photography. 
Lecture: 3 Credits (45 contact hours). 
Components: Lecture 
Attributes: Technical

IMD 292(3)  
Course ID:005215  
Portfolio Practicum: Web Design  
Requires a comprehensive web site design portfolio using skills learned in the IMD Web Design core courses to assess students’ overall skills learned in the web design option. 
Pre-requisite: IMD students with a professional design portfolio to aid in the search for employment. 
Uses industry-standard design software programs and dynamic scripting languages to assemble the comprehensive design portfolio. 
Pre-requisite: IMD 133, 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture 
Attributes: Technical

IMD 100(7)  
Course ID:004294  
Radiography I  
Emphasizes the historical perspective, professional ethics, introductory imaging equipment, patient care, interpersonal communications and the role of the radiographer as the member of the healthcare team. Applies the principles of human anatomy to the study of fundamental radiographic procedures (exposure factors and patient positioning) used for diverse populations. 
Covers procedures of the chest, abdomen, extremities, shoulder girdle, bony thorax, and pelvic girdle. 
Pre-requisite: Admissions to the radiography program and BIO 139 with a minimum grade of “C”. 
Co-requisite: IMG 101, Lecture: 6.0 credits (90 contact hours). 
Lab: 1.0 credit (30 contact hours). 
Components: Laboratory, Lecture 
Attributes: Technical

IMD 101(4)  
Course ID:004295  
Clinical I  
Focus on the application and evaluation of radiography in the clinical setting. Integrates concepts and knowledge of anatomy, pathology, procedures, patient care, and imaging principles. 
Develops technical and procedural knowledge through observation and participation in radiographic studies. 
Pre-requisite: Admissions to the radiography program and BIO 139 with a minimum grade of “C”. 
Co-requisite: IMG 100, Clinical: 4.0 credits (240 contact hours). 
Components: Clinical 
Attributes: Technical

IMD 104(2)  
Course ID:005604  
Introduction to Radiography  
Provides an overview of the foundations of radiography and the practitioner’s role in health care delivery. 
Examines the principles, practices, and policies of health care organizations, in addition to the professional responsibilities of the radiographer. Incorporates basic tube function and radiation protection, as well as legal and ethical considerations. Provides a brief overview of other imaging modalities and patient treatments. 
Pre-requisite: BIO 137 with a minimum grade of C. 
Pre-requisite or Co-requisite: BIO 139. If taken as a Pre-requisite, a minimum grade of C is required. 
Lecture: 1.0 credit (15 contact hours). 
Lab: 1.0 credit (30 contact hours). 
Components: Laboratory, Lecture 
Attributes: Technical
radiology, includes factors that impact image acquisition, display, and retrieval are discussed. Presents the principles of digital system quality assurance and maintenance. Pre-requisite: IMG 104, IMG 106, IMG 108 and IMG 109. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

IMG 116(2)

Advanced Patient Care in Radiography
Provides basic concepts of pharmacology, venipuncture and administration of diagnostic contrast agents. Explains the classification and scheduling of drugs. Emphasizes the appropriate delivery of patient care during radiographic procedures requiring the administration of contrast agents. Provides the knowledge base and practical skills necessary to perform special diagnostic and interventional procedures. Covers fluoroscopic procedures requiring informed consent, aseptic technique, and the administration of various contrast media. Pre-requisite: IMG 104, IMG 106, IMG 108 and IMG 109. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

IMG 117(3)

Clinical Practice II
Continues the IMG 108 clinical experience. Designed to sequentially develop, apply, critically analyze, integrate, synthesize, and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranial, facial bones, and contrast studies of the digestive and urinary system. Pre-requisite: IMG 104, IMG 106, IMG 108 and IMG 109. Clinical: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Clinical
Attributes: Technical

IMG 201(3)

Diagnostic Radiology
Provides in-depth knowledge of the principles and processes of x-ray production and the fundamentals of photographic interactions with matter. Establishes a knowledge base in factors that govern the image production process. Imparts an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiology, includes factors that impact image acquisition, display, and retrieval are discussed. Presents the principles of digital system quality assurance and maintenance. Pre-requisite: IMG 104, IMG 106, IMG 108 and IMG 109. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

IMG 203(3)

Clinical Practice III
Continues the IMG 118 clinical experience. Designed to sequentially develop, apply, critically analyze, integrate, synthesize, and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranial, facial bones, and contrast studies of the digestive and urinary systems, as well as surgical radiographic procedures. Pre-requisite: IMG 114, IMG 116, IMG 118 and IMG 119. Clinical: 3.0 credits (180 contact hours).

Components: Clinical
Attributes: Technical

IMG 210(4)

Radiography IV
Covers radiographic imaging methods examining the imaging process as a sequence of events of x-ray production through hard copy processing. Discussion of the image equipment in terms of function, influence on the image, and the impact of alterations on image characteristics. Emphasizes on fluoroscopic equipment and QC/QA. Enhances and complements the concurrent clinical experiences of the student. Pre-requisite: IMG 201 with a minimum grade of “C”. Co-requisite: IMG 211. Lecture: 1.0 credit (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

IMG 211(6)

Clinical IV
Continues IMG 201 by focusing on the application and evaluation of radiography in the clinical setting. Integrates concepts and the knowledge of anatomy, pathology, procedures, patient care, and imaging principles. Develops technical skills and procedural knowledge through observation and participation in radiographic studies with opportunities for more responsibility and independence with previously learned procedures. Pre-requisite: IMG 201 with a minimum grade of “C”. Co-requisite: IMG 210. Clinical: 6.0 credits (360 contact hours).

Components: Clinical
Attributes: Technical

IMG 214(2)

Imaging Equipment
Establishes a knowledge base in radiographic, fluoroscopic, and mobile equipment requirements and design. Provides a basic knowledge of quality control. Imparts an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiology. Discusses factors that impact image acquisition, display, and retrieval. Presents the principles of digital system quality assurance and maintenance. Pre-requisite: IMG 208. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

IMG 215(1)

Basic Computed Tomography
Provides entry-level radiography students with an introduction to and basic understanding of the operation of a computed tomography (CT) device. Pre-requisite: IMG 209. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

IMG 219(6)

Clinical Practice IV
Continues the IMG 209 clinical experience. Designed to sequentially develop, apply, critically analyze, integrate, synthesize, and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranial, facial bones, and contrast studies of the digestive and urinary systems, surgical radiographic procedures and special diagnostic procedures such as myelograms, arteriograms, hepatobiliary studies, and venography. Pre-requisite: IMG 209. Clinical: 6.0 credits (360 contact hours).

Components: Clinical
Attributes: Technical
IMG 220(4) Course ID:004301
Radiography V
Re-introduces advanced modalities used to complement diagnosis images. Covers the principles of radiation protection, radiation protection, pathology, pharmacology principles and systemic classification of diseases. Continues the discussion of professional and legal standards needed to practice by reviewing radiographic topics in preparation for a career as an imaging professional. Pre-requisite: IMG 210 with a minimum grade of “C”. Co-requisite: IMG 221. Lecture: 3.0 credits (45 contact hours) Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

IMG 221(6) Course ID:004302
Clinical V
Continues IMG 211 by focusing on the application and evaluation of radiography in the clinical setting. Integrates concepts and the knowledge of anatomy, pathology, procedures, patient care, and imaging principles. Develops technical skills and procedural knowledge through observation and participation in radiographic studies with opportunities for more responsibility and independence with previously learned procedures. Pre-requisite: IMG 211 with a minimum grade of “C”. Co-requisite: IMG 220. Clinical: 6.0 credits (360 contact hours).
Components: Clinical
Attributes: Technical

IMG 224(2) Course ID:005615
Radiation Protection & Biology
Provides an overview of the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues and the body as a whole are presented. Discusses factors affecting biological response, including acute and chronic effects of radiation. Presents an overview of the principles of radiation protection, including the responsibilities of the radiographer for patients, personnel and the public. Incorporates radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations. Pre-requisite: IMG 214 and IMG 216 and IMG 219. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

IMG 226(1) Course ID:005616
Radiographic Pathology
Introduces concepts related to disease and etiologic considerations with emphasis on radiographic appearance of disease and impact on exposure factor selection. Pre-requisite: IMG 214 and IMG 216 and IMG 219. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

IMG 228(2) Course ID:005619
Radiography Seminar
Provides capstone information needed by the entry level radiographer; includes the radiography practitioner’s role in the health care delivery system, continuing education, and professional development, advanced modalities, accreditation organizations, national registration and state licensure, as well as the benefits of membership and activity in professional societies. Examines the principles, practices, and policies of health care organizations, and the delivery of health care in the United States. Pre-requisite: IMG 214, IMG 216 and IMG 219. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

IMG 229(6) Course ID:005617
Clinical Practice V
Continues the IMG 219 clinical experience. Designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary systems, surgical radiographic procedures, and special diagnostic procedures such as myelograms, arthrogram, hepatobiliary studies, and venography. Pre-requisite: IMG 214, IMG 216 and IMG 219. Clinical: 6.0 credits (360 contact hours).
Components: Clinical
Attributes: Technical

IMG 230(3) Course ID:004826
Sectional Anatomy for Advanced Medical Imaging
Provides content on computed tomography and magnetic resonance imaging (CT/MRI) procedures including patient care, image acquisition, and cross sectional anatomy. Pre-requisite: ((IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMG 240(3) Course ID:006617
Pathology for Advanced Medical Imaging Modalities
Examines diseases commonly diagnosable via computed tomography (CT) and/or magnetic resonance imaging (MRI). Traces the disease or trauma process from its description, etiology, symptoms, and diagnosis with appearance on CT and/or MRI scans. Pre-requisite: ((IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMG 250(3) Course ID:004827
Computed Tomography Physics & Instrumentation
Examines the 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. Pre-requisite: (IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMG 255(3) Course ID:004828
Magnetic Resonance Physics & Instrumentation
Explores 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. Pre-requisite: (IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMG 260(3) Course ID:005332
Computed Tomography Imaging Procedures
Examines the procedures, positioning, and equipment involved in computed tomography (CT) imaging. Pre-requisite: ((IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMG 265(3) Course ID:004829
Magnetic Resonance Imaging Technology
Focuses on patient care and imaging areas of magnetic resonance imaging (MRI) and magnetic resonance angiography (MRA). Explores topics of image formation, tissue characteristics, resolution, imaging optimization, and parameters, post processing, and patient characteristics. Discusses specific MRI and MRA exams for image body systems. Pre-requisite: ((IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

 IMG 285(4) Course ID:015558
Computed Tomography Clinical Practice I
Provides a structured clinical experience through sequential competency-based assignments that focuses on the upper and lower extremities, bony and visceral thorax, abdominal and pelvic cavities, and cranial. Provides necessary clinical correlation of data acquisition concepts and basic scanning parameters. Pre-requisite: ARRT registered as a Radiographer or Nuclear Medicine Technologist, or NMTCB registered as a Nuclear Medicine Technologist, and Kentucky radiography license or a provisional license as a nuclear medical technologist to perform CT. Pre-requisite or Co-requisite: IMG 230, IMG 240, IMG 250 and IMG 260. Clinical: 4.0 credits (240 contact hours).
Components: Clinical
Attributes: Technical

IMG 295(4) Course ID:017388
Clinical Practice in Magnetic Resonance Imaging
Designed to provide the post-registry radiographer or nuclear medicine technologist with the opportunity to establish clinical competencies in the various categories of MRI, including the head, neck, thorax, abdomen & pelvis, spine, and musculoskeletal system. Includes experience in quality control procedures, image analysis, and the storage and retrieval of electronic images. Provides clinical experience including magnetic safety, screening of the patient, coworkers, the general public and anyone entering the magnetic scanning room. Pre-Requisites: IMS 265 and IMS 265. Clinical: 4 credits (240 contact hours).
Components: Clinical
Attributes: Technical

IMT 100(3) Course ID:001578
Welding for Maintenance
Provides basic instruction needed for student to weld using SMAW (Stick), GMAW (MIG), GTAW (TIG), and Oxy-Fuel processes. Co-requisite: (IMT 101 or IMT 1011 - IMT 1014) or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 101(2) Course ID:001579
Welding for Maintenance Lab
Provides application of basic welding skills used in SMAW (Stick), GMAW (MIG), GTAW (TIG) and Oxy-Fuel. Co-requisite: IMT 100 or consent. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 110(3) Course ID:001580
Industrial Maintenance Electrical Principles
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. Co-requisite: IMT 111 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IMT 111(2)  Course ID:001581  Industrial Maintenance Electrical Principles Lab  
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. Co-requisite: IMT 110 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Lecture  
Attributes: Course Also Offered in Modules, Technical

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. Co-requisite: IMT 116. Lecture: 2 credits (30 contact hours).

Components: Lecture  
Attributes: Course Also Offered in Modules, Technical

IMT 116(5)  Course ID:001583  Maintenance Machining 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. Co-requisite: IMT 115 or Consent. Laboratory: 5 credits (150 contact hours).

Components: Laboratory  
Attributes: Course Also Offered in Modules, Technical

IMT 120(3)  Course ID:001584  Industrial Maintenance Rotating Machinery  
Students will learn the basic principles needed for the proper maintenance of AC and DC motors. Pre-requisite: Permission of the instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

IMT 121(2)  Course ID:001585  Industrial Maintenance Rotating Machinery Lab  
Provides practical experience in the construction, operation and maintenance of AC motors and alternators and DC motors and generators. Co-requisite: IMT 120 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory  
Attributes: Technical

IMT 140(3)  Course ID:005594  Industrial Mechanics  
Introduces the fundamental principles of fluid power, mechanical systems, and the relationship between voltage, current, resistance, and power in electrical circuits. Presents a broad range of technical information used in industry today by technicians, mechanics, and maintenance personnel. Co-requisite: IMT 141. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

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. Co-requisite: IMT 140. Lab: 1 credit (30 contact hours).

Components: Laboratory  
Attributes: Technical

IMT 150(3)  Course ID:001588  Maintaining Industrial Equipment I  
Introduces the student to maintenance techniques and procedures used to maintain industrial equipment. Co-requisite: IMT 151 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Course Also Offered in Modules, Technical

IMT 151(2)  Course ID:001589  Maintaining Industrial Equipment I Lab  
Provides the student with lab experience in the maintenance of industrial equipment. Co-requisite: IMT 150 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory  
Attributes: Course Also Offered in Modules, Technical

IMT 160(2)  Course ID:017373  FANUC Robot Operations  
Introduces students to basic FANUC robotics programming as well as providing introductory operational skills needed in an industrial environment. Integrated Lecture: 1 credit (15 contact hours). Integrated Lab: 1 credit (30 contact hours).

Components: Integrated Laboratory, Integrated Lecture  
Attributes: Technical

IMT 161(2)  Course ID:017374  KUKA Robot Level I Robot Operation  
Introduces students to basic KUKA robotic programming as well as providing introductory operational skills needed in an industrial environment. Integrated Lecture: 1 credit (15 contact hours). Integrated Lab: 1 credit (30 contact hours).

Components: Integrated Laboratory, Integrated Lecture  
Attributes: Technical

IMT 162(2)  Course ID:017377  YASKAWA/MOTOMAN Robot Operations  
Introduces students to basic YASKAWA/MOTOMAN robotic programming as well as providing introductory operational skills needed in an industrial environment. Integrated Lecture 1.0 credit hour (15 contact hours). Integrated Lab 1.0 credit hour (30 contact hours).

Components: Integrated Laboratory, Integrated Lecture  
Attributes: Technical

IMT 198(1 - 8)  Course ID:001590  Instructor Consent Required  
Practicum  
Provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Permission of Instructor. Practicum: 1-8 credits (75-600 contact hours).

Components: Practicum  
Attributes: Technical

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 receive compensation for their work. Pre-requisite: Permission of Instructor. Co-op: 1 - 8 credits (75-600 contact hours).

Components: Co-op  
Attributes: Technical

IMT 200(4)  Course ID:007372  Industrial Robotics and Robotic Maintenance  
Introduces 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. Pre-requisite: IMT 110 and IMT 111 or Consent of Instructor. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture  
Attributes: Technical

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, sensing devices, indicator lights, and introduces the different types and operations of basic motor control circuits. Pre-requisite: IMT 110, & IMT 111. Co-requisite: IMT 221. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Course Also Offered in Modules, Technical

IMT 221(2)  Course ID:001593  Industrial Maintenance Electrical Motor Controls I Lab  
Includes an application of common symbols used in motor control circuits, fundamentals of electrical schematics and wiring diagrams, principles of relays, motor starters, switches, pilot devices, sensing devices, indicator lights, and the different types and operations of basic motor control circuits. Pre-requisite: (IMT 110 and IMT 111) or consent of instructor. Co-requisite: IMT 220. Laboratory: 2.0 credits (60 contact hours).

Components: Laboratory  
Attributes: Course Also Offered in Modules, Technical

IMT 222(2)  Course ID:006422  Industrial Maintenance Motor Controls II  
Provides advanced study of motor controls in industry. Addresses open and closed loop control systems, servo motors, encoders, AC and DC motors and industry standard color coding. Pre-requisite: (IMT 110 and IMT 111 and IMT 220 and IMT 221) or consent of instructor. Co-requisite: IMT 223. Lecture: 2 credits (30 contact hours).

Components: Lecture  
Attributes: Course Also Offered in Modules, Technical

IMT 223(2)  Course ID:006437  Industrial Maintenance Motor Controls II Lab  
Provides advanced study of motor controls in industry. Addresses open and closed loop control systems, servo motors, encoders, AC and DC motors and industry standard color coding. Pre-requisite: IMT 110 and IMT 111 and IMT 220 and IMT 221 or consent of instructor. Co-requisite: IMT 222. Laboratory: 2 credits (60 hours).

Components: Laboratory  
Attributes: Course Also Offered in Modules, Technical

IMT 230(5)  Course ID:001594  Industrial Maintenance of PLCs  
This course includes the theory of programmable logic controllers to include installation, programming, interfacing, and troubleshooting of industrial PLC's. Pre-requisite: IMT 240.

Components: Lecture  
Attributes: Technical

IMT 231(2)  Course ID:001595  Industrial Maintenance of PLC's Lab  
Addresses the diversity of PLC control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: (IMT 110 and IMT 111) or IMT 130 and 131) with a grade of C or greater) or Consent of Instructor. Co-requisite: IMT 230 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory  
Attributes: Technical

IMT 240(6)  Course ID:001596  Industrial Maintenance Motor Control Concepts  
Addresses the diversity of control devices and applications used in industry today with safety and electrical lockouts included. The basic theory of programmable logic controllers is also included. Pre-requisite: [(IMT 110 and IMT 111) or (IMT 130 and IMT 131) with a grade of C or greater] or Consent of Instructor. Co-requisite: IMT 241 or Consent of Instructor. Lecture: 6 credits (90 contact hours).

Components: Lecture  
Attributes: Technical

IMT 250(2)  Course ID:001598  Maintaining Industrial Equipment II  
Integrates the student's accumulative knowledge from the IMT 150 and IMT 151 courses. Emphasizes troubleshooting techniques and applied machine repair situations that require the student to apply learned skills from all areas of the curriculum. Pre-requisite: (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  
Attributes: Technical
IMT 251(3) Course ID:001599
Maintaining Industrial Equipment II Lab
Complements IMT 250 and consists of advanced, specific and assigned machine repair tasks. Pre-requisite: (IMT 150 and 151) with a grade of "C" or greater or consent of instructor. Co-requisite: IMT 250 or consent of instructor. Laboratory: 3.0 credits (90 contact hours). Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

IMT 260(7) Course ID:006546
Presswork and Die Maintenance
Includes the fundamental concepts and machining operations needed by the industrial maintenance technician to be proficient in the field of stamping press and die maintenance. Pre-requisite: IMT 100 and IMT 101 and [(IMT 115 & IMT 116) or (IMT 114) or (MTT 110 & MTT 112)] or consent of instructor. Lecture: 2 credits (30 contact hours), Lab: 5 credits (150 contact hours).
Components: Lecture
Attributes: Technical

IMT 280(3) Course ID:001600
Advanced Programmable Logic Controllers
Covers advanced theory of programmable logic controllers to include designing applications, programming, interfacing and troubleshooting of industrial PLCs. Pre-requisite: ((IMT 220 and IMT 221) with a grade of "C" or greater) or (equivalent) Consent of Instructor. Co-requisite: IMT 281 or Instructor consent. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 281(2) Course ID:001601
Programmable Logic Controllers Lab
Provides practical applications of the theory in IMT 280 to include installation, programming, interfacing and troubleshooting of industrial PLCs. Pre-requisite: (IMT 220 and IMT 221) with a grade of "C" or greater) or Consent of Instructor. Co-requisite: IMT 280 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

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. Pre-requisite: (IBRX 120 or ELT 102) or (FPX 100 and FPX 101) and IMT 100 and IMT 101 and IMT 110 and IMT 111 and IMT 150 and IMT 151 and IMT 220 and IMT 221) or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

IMT 290(1 - 3) Course ID:001602
Instructor Consent Required
Special Problems
Provides an opportunity to develop advanced skills in topics related to industrial maintenance. Pre-requisite: Consent of Instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory
Attributes: Technical

IMT 1001(0.75) Course ID:005915
Welding for Maintenance Safety
Provides basic instruction needed for student to weld using Oxy-Fuel. Co-requisite: IMT 1011 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1002(0.75) Course ID:005916
Welding for Maintenance SMAW (Stick Welding)
Provides basic instruction needed for student to weld using Shielded Metal Arc Welding (SMAW). Co-requisite: 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. Co-requisite: 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. Co-requisite: IMT 1014 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1011(0.5) Course ID:005919
Welding for Maintenance Safety and Cutting Lab
Provides application of welding safety and use of oxygen-fuel cutting equipment. Co-requisite: 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. Co-requisite: 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. Co-requisite: 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. Co-requisite: 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. Co-requisite: 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. Co-requisite: 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. Co-requisite: IMT 1153 or Consent of Instructor. Lecture: 0.3 credit (4.5 contact hours).
Components: Lecture

IMT 1154(0.8) Course ID:006409
Lathe Operations and Procedures
Introduces lathe operations including lathe components, grinding tool bits, the selection of feeds and speeds, turning operations, and threading. Co-requisite: IMT 1154 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, trammimg, selection of feeds and speeds, form tools, dressing grinding wheels. Pre-requisite: IMT 1161 or Consent of Instructor. Co-requisite: IMT 1155 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. Co-requisite: IMT 1161 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. Co-requisite: 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. Co-requisite: IMT 1153 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1164(2) Course ID:006414
Lathe Operations and Procedures Lab
Introduces lathe operations including lathe components, grinding tool bits, the selection of feeds and speeds, turning operations, and threading. Co-requisite: 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, trammimg, selection of feeds and speeds, form tools, dressing grinding wheels. Pre-requisite: IMT 1161 or Consent of Instructor. Co-requisite: IMT 1155 or Consent of Instructor. Laboratory: 1.5 credit (45 contact hours).
Components: Laboratory

IMT 220(1) Course ID:006416
Introduction to Motor Controls
Addresses the importance of electrical safety and the general fundamentals of motor controls. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2211. Lecture: 1 credit (15 contact hours).
Components: Lecture

IMT 220(2) Course ID:006417
Motor Starters and Pilot Devices
Addresses 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. Pre-requisite: IMT 2201 or Consent of Instructor. Co-requisite: IMT 2212. Lecture: 1 credit (15 contact hours).
Components: Lecture

IMT 220(3) Course ID:006418
Motor Control Circuits
Explores aspects of electrical symbols and specialized motor control circuit. Pre-requisite: IMT 2202 or Consent of Instructor. Co-requisite: IMT 2213. Lecture: 1 credit (15 contact hours).
Components: Lecture

IMT 221(2) Course ID:006420
Motor Starters and Pilot Devices Lab
Addresses the diversity of motor starters, control devices, and circuitry. Pre-requisite: IMT 2211 or Consent of Instructor. Co-requisite: 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. Pre-requisite: IMT 2212 or Consent of Instructor. Co-requisite: IMT 2203. Laboratory: 0.1 credit (30 contact hours).
Components: Laboratory

IMT 2231(0.5)  Course ID:006434
Principles in Process Control and Automation Lab
Provides the lab component for IMT 2231. Covers open and closed loop systems and how they relate to servo and motor encoders. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2231. 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. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2222. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2333(1)  Course ID:006436
Industry Standards for Installing Motors/Electronic Variable Speed Drives II
Provides the lab component for IMT 2333. Covers how to properly evaluate maintenance procedures used for installation of AC and DC motors, proper start up and shut down of electrical systems and fault recovery. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2333. Laboratory: 1 credit (30 contact hours).
Components: Laboratory

IMT 2801(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 (MITT 114) or (MITT 110 & MITT 112) or Consent of Instructor. Lecture: 0.5 credit (15 hours).
Components: Lecture

IMT 2802(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. Pre-requisite: IMT 2801 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, squeezing, and coining. Pre-requisite: IMT 2802 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 coatings and treatments. Pre-requisite: IMT 2803 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 stripper, spring selection, and the characteristics of nitrogen die pressure systems. Pre-requisite: IMT 2804 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 grinding practice, repairing worn edges, 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. Pre-requisite: IMT 2606 or Consent of Instructor. Lecture: 0.1 credits (1.5 contact hours), Lab: 1.5 credits (45 contact hours).
Components: Lecture

IMT 2701(0.75)  Course ID:006424
Introduction to Programmable Logic Controllers
Provides an overview of Programmable Controllers, their hardware and functions. Pre-requisite: (IMT 220 and IMT 221 with grade of C or greater). Co-requisite: IMT 2701 or Consent of Instructor. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 2702(0.75)  Course ID:006425
Programming Instructions in PLCS
Provides an overview in programming Programmable Logic Controller Timers and Counters. Co-requisite: IMT 2701 or Consent of Instructor. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 2703(0.75)  Course ID:006426
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. Co-requisite: IMT 2813 or Instructor Consent. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 2704(0.75)  Course ID:006427
Advanced Instructions and Troubleshooting PLCS
Provides an understanding of control instructions, sequencers, shift registers, troubleshooting, and forcing inputs and outputs. Co-requisite: IMT 2701 or Instructor Consent. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 2811(0.5)  Course ID:006428
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. Pre-requisite: (IMT 220 and IMT 221 with grade of C or greater) or (equivalent) or Consent of Instructor. Co-requisite: IMT 2811 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2812(0.5)  Course ID:006429
Programming Instructions in PLCS Lab
Provides practical experience in programming Programmable Logic Controller Timers and Counters. Co-requisite: IMT 2802 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2813(0.5)  Course ID:006430
Number Systems and Data Manipulation in PLCS Lab
Converts number systems, perform data manipulation, transfer, and comparison on the numbers as well as program math instructions. Co-requisite: IMT 2803 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2814(0.5)  Course ID:006431
Advanced Instructions and Troubleshooting PLCS Lab
Covers program control instructions, sequencers, and shift registers. Includes troubleshooting PLCS issues and using the forcing command. Co-requisite: IMT 2804 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

INF Informatics

INF 128(3)  Course ID:007283
Principles of Informatics
Multi-disciplinary exploration of the nature of information; how it is represented, processed, shared, preserved, and protected. Topics drawn from the fields of computing, communication, business, the natural and social sciences, and the humanities. Identifies enduring principles and examines impacts on individuals and society; provides practice with a variety of digital technologies. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science, University Course (Northern Kentucky University)

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)

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)

INF 286(3)  Course ID:007287
Introduction to Web Development
An introduction to web design and development for majors in the informatics fields. Web page creation and HTML; site organization and best practices; e-business planning, models and strategies; overview of SML and CSS; introduction to client-side and server-side programming. Lecture 3.0 credits (45 contact hours).
Components: Lecture
Attributes: University Course (Northern Kentucky University)
INS 100/3 Course ID: 006586
Introduction to Insurance and Risk Management
Introduces property-casualty insurance and is a foundation for the study of insurance. Provides information on types of insurance, providers, regulatory environment, and performance measures. Describes the function of marketing, underwriting and claims. Covers insurance as a contract, introduces both property and liability loss exposure and policy provisions, and provides a basic discussion of risk management as a means of managing loss exposures. Pre-requisite: Reading, English, and Mathematics assessment scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

INS 181/3 Course ID: 006587
Foundations of Insurance Production
Introduces principles of insurance production and agency and sales management. Emphasizes insurance products and insurance markets in the context of personal lines coverages as well as limited commercial lines coverages. Pre-requisite: Reading and English Assessment scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s). INS 100 or consent. MT 150 or above. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IRW 085/4 Course ID: 018578
Integrated Reading and Writing I
Emphasizes proficiency in reading comprehension, vocabulary, and critical thinking skills to prepare students for college reading through individualized and/or group instruction and practice. Applies writing as a process with emphasis on paragraph-length assignments, basic conventions of standard English as these apply to students’ own work, writing in response to reading, and the use of technology to produce and share writing. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills

IRW 095/4 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: Placement by KCTCS Assessment and Placement Policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills

INF 125/2 Course ID: 001607
Introduction to Drywall
This course includes cutting and hanging drywall. The manufacturing processes are covered along with product options for special applications. Installation of metal studs in fabrication of walls is included also. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

INS 101/2(4) Course ID: 003972
Fundamentals of Instrumentation
Introduces concepts of instrumentation devices and laboratory techniques used for monitoring and controlling manufacturing processes. Includes component identification and application, basic conversions, accuracy of measuring devices, tubing use and selection, repair procedures and the theory of operation and calibration of pressure, and process measuring instruments. Covers the need for calibration and the use of various calibration standards. Includes safety precautions, and regulations encountered in the instrumentation field. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ISM 101/2(4) Course ID: 003976
Fundamentals of Process Control
Provides theoretical and practical experience in the operation of process control systems. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ISX 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

ISX 105/2 Course ID: 015675
General Industrial Safety
Introduces the history of the safety movement along with current standards under the Occupational Safety and Health Act (OSHA). Introduces safety engineering methods. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

JAT 101/3 Course ID: 002222
Introduction to Communication Media
Lectures, readings, and other materials provide an introductory survey of the journalism, advertising, and telecommunications professions. This course will foster an understanding of the history and role of work, study of techniques, analyses of problems, and reports. May be repeated to a maximum of four credits. (Offered in Community College System only.) Independent Study 1.0 - 4.0 credit (15 contact hours)
Components: Independent Study
Attributes: Other

JOU 101/3 Course ID: 000788
Introduction to Journalism
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 media news, 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: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Other

JOU 204/3 Course ID: 000794
Writing for the Mass Media
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 (30/31 ratio contact hours). Pre-requisite: JOU 101 or Consent of Instructor.
Components: Laboratory, Lecture

JOU 103/1 Course ID: 016786
CPR & First Aid
This course provides practical training in industrial safety. Students are expected to obtain certification in first aid and cardiopulmonary resuscitation. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

ISX 1051(0.67) Course ID: 015673
10-hour General Industry
Provides entry level workers with information about their rights and employer responsibilities. Emphasizes hazard identification, avoidance, control and prevention. Lecture: 67 credits (10 contact hours).
Components: Lecture

ISX 1052(1.33) Course ID: 015674
General Industry Topics
Introduces the history of the safety movement under the standards of the Occupational Safety and Health Administration (OSHA). Emphasizes hazard identification, avoidance, control and prevention. (Covers selected topics and standards for general industry under OSHA.) OSHA certificate may be available upon successful completion of all required course topics (and must be within six months of completing ISX 1051). Pre-requisite OR Co-requisite: ISX 1051. Lecture: 1.33 credits (20 contact hours).
Components: Lecture
**JPN Japanese**

**JPN 101(4)** Course ID:003862  
Beginning Japanese I  
A course in first semester Japanese language. Lecture: 4 credits (60 contact hours)  
Components: Lecture  
Attributes: Foreign Language, Cultural Studies

**JPN 102(4)** Course ID:003970  
Beginning Japanese II  
A course in second semester Japanese language. Pre-requisite: JPN 101 or equivalent. Lecture: 4 credits (60 contact hours)  
Components: Lecture  
Attributes: Foreign Language, Cultural Studies

**KHP Kinesiology and Health Promotion**

**KHP 104(1)** Course ID:002304  
Beginning Swimming  
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 106(1)** Course ID:002306  
Beginning Bowling  
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 107(1)** Course ID:002307  
Fitness  
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 109(1)** Course ID:002309  
Dancing  
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 115(1)** Course ID:002315  
Martial Arts  
Provides students with beginning instruction and experience in self-defense, basic exercise, and disciplines associated with martial arts. Lab: 1 credit (30 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 116(1)** Course ID:002316  
Intermediate Martial Arts  
Provides students with intermediate instruction and experience in basic exercise and disciplines associated with martial arts. Pre-requisite: KHP 115. Lab: 1 credit (30 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 121(1)** Course ID:002321  
Aerobics  
Includes beginning conditioning activities and/or vigorous nonstop rhythmic movement patterns designed to improve or maintain cardiovascular endurance for students at all levels of fitness. Lab: 1 credit (30 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 122(1)** Course ID:002322  
Low-Impact Aerobics  
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 123(1)** Course ID:002323  
Basketball  
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

**JUS Criminal Justice**

**JUS 101(3)** Course ID:017113  
Introduction to Criminal Justice  
This course provides an overview of the criminal justice system; organization and operation of police, courts, and corrections; race, ethnicity, gender, and criminal justice decision-making, current trends and future prospects. Lecture: 3 credit hours (45 contact hours).  
Components: Lecture  
Attributes: SB - Social Behavior Science, University Course (Northern Kentucky University)

**JUS 231(3)** Course ID:017112  
Race, Gender, and Crime  
Political formulation of race and gender; race and gender issues related to criminality, victimization, prosecution; adjudication, sanctions, and employment within the legal system; antecedents of contemporary practice; prospects for change. Lecture: 3 credit hours (45 contact hours).  
Components: Lecture  
Attributes: AH - Arts and Humanities, University Course (Northern Kentucky University)

**KHP 100(1)** Course ID:002299  
Walking  
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 101(1)** Course ID:002300  
Weightlifting  
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 124(1)** Course ID:002324  
Conditioning  
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 129(1)** Course ID:002329  
Beginning Weight Training  
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 130(1)** Course ID:002330  
Water Aerobics  
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)  
Components: Laboratory  
Attributes: Other

**KHP 132(1)** Course ID:002332  
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  
Attributes: Other

**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  
Attributes: Other

**KHP 138(1)** Course ID:003855  
Beginning Yoga  
Provides students with instruction and activities associated with beginning yoga. Lab: 1 credit (30 contact hours)  
Components: Laboratory  
Attributes: Other
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credits</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KHP 139(1)</td>
<td>Lifetime Sports</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. Laboratory: 1 credit (15 contact hours).</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>KHP 140(1)</td>
<td>Advanced Weight Training</td>
<td>Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Pre-requisite: Completion of comparable service course or demonstrated competency. Laboratory: 3.0 credit hours.</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>KHP 122(3)</td>
<td>Exercise Techniques and Physical Training</td>
<td>Focuses on the core components of personal training. Provides information and resources necessary to pass personal fitness trainer certification. Pre-requisite: BIO 135 or MSG 100 (or consent of instructor), KHP 235. Lecture: 3 credits (45 contact hours).</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>KHP 225(3)</td>
<td>Personal Nutrition and Fitness</td>
<td>Introduces the importance of daily diet and nutrition. Addresses the role of the personal trainer in helping clients to recognize and decrease risks for chronic diseases. Lecture: 3.0 credits (45 contact hours).</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>KMA 100(5)</td>
<td>Kentucky Medication Aide</td>
<td>Prepares students to administer specific medications in a long term care facility as delegated and supervised by a licensed nurse. Pre-requisite: KHP 146.</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>LAS 201(3)</td>
<td>Introduction to Latin America</td>
<td>An interdisciplinary approach to the people, culture, and development of the Latin American republics. Attention will be concentrated on significant aspects of the indigenous peoples, geography, economic processes, gender roles, social structures and politics of Latin America, with special attention paid to value structures and value conflicts. Musical, literary and artistic expression in Latin America will also be introduced. Lecture: 3.0 credits (45 contact hours).</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>LIN 115(3)</td>
<td>Introduction to Reference Services</td>
<td>Introduces library reference services and services. Includes reference interview techniques, print and digital information sources, bibliographic and full text databases, and digital access and retrieval skills. Lecture: 3.0 credits (45 contact hours).</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>LIN 175(3)</td>
<td>Information Literacy</td>
<td>A foundational course that introduces students to the cross-disciplinary skills needed to assess information needs, and access and evaluate information sources. Lecture: 3.0 credits (45 contact hours).</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>LIT 120(3)</td>
<td>Readers' Advisory Services</td>
<td>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. Lecture: 3.0 credits (45 contact hours).</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>LIT 124(3)</td>
<td>Library Administration</td>
<td>Introduces basic principles of library organization and management. Includes the planning process, policies, ethical and legal issues, budgeting, and human resources. Lecture: 3.0 credits (45 contact hours).</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>LIT 132(3)</td>
<td>Library Technical Services</td>
<td>Provides an overview of library technical services, including acquisitions, processing, cataloging and classification. Lecture: 3.0 credits (45 contact hours).</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>LIT 133(3)</td>
<td>Library Technical Services</td>
<td>Provides an overview of library technical services, including acquisitions, processing, cataloging and classification. Lecture: 3.0 credits (45 contact hours).</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>LIT 240(3)</td>
<td>Literature of Appalachian Kentucky</td>
<td>Introduces 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).</td>
<td>1</td>
<td>45</td>
</tr>
</tbody>
</table>
LIT 243(3) Course ID:004807
Library Services for Children
Introduces library services for children grades K - 6 and their caregivers. Includes surveys of child development, library programming, children's literature, collection development, and legal issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

LIT 245(3) Course ID:005083
Library Services for Young Adults
Introduces library services for young adults from 6th to 12th grades. Includes programming, collection development, young adult literature, the use of the Internet, and ethical and legal issues. Emphasizes the development and promotion of young adult library services. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

LIT 247(3) Course ID:004808
Library Services for Adults
Introduces library services for adults. Includes adult literature, collection development, programming, circulation services, reference services, and customer relations. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

LIT 280(3) Course ID:004810
Genealogy Services in Libraries
Introduces genealogy services in libraries. Surveys genealogy data sources, research methods, collection development, patron referrals, legal and ethical issues, library programming, and marketing. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

LIT 285(3) Course ID:005051
History of Libraries
Examines the development of libraries from ancient times to the present, with emphasis on academic and public libraries in the United States. Includes the interaction of libraries with economic, social, and political trends in the larger society. Lecture: 3 credit (45 contact hours).
Components: Lecture

LOM Logistics and Operations Management

LOM 100(3) Course ID:006827
Introduction to Logistics Management
Provides an overview of general logistics concepts and organizational issues; inventory management and customer service in logistics; and transportation and third party logistics. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

LOM 101(3) Course ID:006828
Transportation Management
Introduces students to the principles and practices of transportation and pricing issues; transportation modes and terminals; and transportation risk management and global management issues. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

LOM 102(3) Course ID:006829
Supply Chain Management
Presents an overview of supply chain management and financial analysis; inventory management skills and techniques; and supply chain design and sustainability solutions. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

LOM 180(3) Course ID:004629
Project Management
Introduces practical approach to managing essential resources, people, and deadlines, and real-world challenges required to bring any project in on time, on target, and on budget. Covers skills and concepts of essential project management processes, defining requirements, 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. Pre-requisite: Digital literacy or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Offering: LOM 180
Attributes: Technical

LOM 202(3) Course ID:006830
Applied Supply Chain Management
Provides an understanding of the importance of individual components (supplies, manufacturers, distributors, and customers) in the operation of a supply chain. Pre-requisite: LOM 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Offering: LOM 202
Attributes: Technical

LOM 203(3) Course ID:006830
Applied Supply Chain Management
Provides an understanding of the importance of individual components (supplies, manufacturers, distributors, and customers) in the operation of a supply chain. Pre-requisite: LOM 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Offering: LOM 202
Attributes: Technical

LOM 210(3) Course ID:016149
Lean for Logistics
Introduces students to the principles and practices of lean operations in relation to the field of logistics. Incorporates a lean simulation activity and examples from lean practitioners in the management of supply chain operations. Discusses core lean principles with an emphasis on work cells and Just In Time (JIT) practices. Pre-requisite or Co-requisite: LOM100 Introduction to Logistics Management. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

MA Mathematics

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, fillings, polyhedra, number theory and game theory. This course is not available for credit to persons who have received credit in any mathematics course of a higher number with the exceptions of MA 112, 122, 162, 201 and 202. This course does not serve as a Pre-requisite for any calculus course. Credit not available on that basis of special examination Pre-requisite: Two years of high school algebra and a Math ACT score of 19 or above, or MA 108, or math placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 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 a grade of C or better in MA 109 (UK) and MA 112 (UK), or a grade of C or better in 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 high school that includes the study of the trigonometric functions. Note: Math placement test recommended. Lecture: 3.0 credits (45 contact hours).
Discussion: 1.0 credit (30 contact hours).
Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 114(4) Course ID:006626
Calculus II
A continuation of MA 113, primarily stressing techniques of integration. Lecture: 3 hours; recitation, 2 hours per week. Pre-requisites: High school trigonometry or MA 112 (UK), and a grade of C or better in MA 113 (UK), MA 137 or MA 132 (UK). Lecture: 3.0 credits (45 contact hours).
Discussion: 1.0 credit (30 contact hours).
Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 162(3) Course ID:006628
Finite Mathematics and Its Applications
Finite mathematics with applications to business, biology, and the social sciences. Linear functions and inequalities, matrix algebra, linear programming, probability. Emphasis on setting up mathematical models from stated problems. Pre-requisites: MA 109 (UK) or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 193(1) Course ID:006629
Supplementary Mathematics Workshop I
Laboratory offered (only) as an adjunct to certain mathematics lecture courses. Offered only on a pass/fail basis. Co-requisites: Set by instructor. Lab 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: University Course (University of Kentucky)

MA 194(1) Course ID:006630
Supplementary Mathematics Workshop II
Laboratory offered (only) as an adjunct to certain mathematics lecture courses. Offered only on a pass/fail basis. Co-requisites: Set by instructor. Lab 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: University Course (University of Kentucky)
MA 201(3)  Course ID:006631  Mathematics for Elementary Teachers
Sets, numbers and operations, problem solving and number theory. Recommended only for majors in elementary and middle school education. Pre-requisites: MA 109 (UK) or MA 111 (UK). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course

MA 202(3)  Course ID:006632  Mathematics for Elementary Teachers
Algebraic reasoning, introduction to statistics and probability, geometry, and measurement. Pre-requisites: A grade of "C" or better in MA 201 (UK). Also recommended: a course in logic (e.g. PHI 120) or a course in calculus (e.g. MA 123 (UK)). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course

MA 213(4)  Course ID:006633  Calculus III
MA 213 is a course in multivariate calculus. Topics include three dimensional vectors, partial derivatives, double and triple integrals, sequences, and infinite series. Lecture: 3 hours; recitation, 2 hours per week. Pre-requisites: MA 213 or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course

MA 241(3)  Course ID:006635  Geometry for Middle School Teachers
A course in plane and solid geometry designed to give middle school mathematics teachers the knowledge needed to teach a beginning geometry course. Cannot be counted toward the mathematics minor or major. Pre-requisites: One semester of calculus or MA 201 (UK) with a grade of C or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course

MAI Medical Assisting

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 Pre-requisite: Acceptance into the Medical Assisting program or Consent of Medical Assisting Coordinator/Director. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MAI 120(3)  Course ID:004090  Medical Assisting Laboratory Techniques I
Introduces theory and practical application in the physician’s office laboratory including anatomy and physiology, patient preparation, specimen collection and transport, processing and testing, blood collection and prevention of disease transmission. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: Acceptance into the Medical Assisting Program or consent of Medical Assisting Coordinator/Director.
Components: Laboratory, Lecture
Attributes: Technical

MAI 140(4)  Course ID:004091  Medical Assisting Clinical Procedures I
Introduces clinical skills and techniques used in the physician’s office for patient examination, diagnosis and treatment. Introduces concepts related to electronic health records (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. Pre-requisite: Acceptance into the Medical Assisting Program or Consent of Medical Assisting Coordinator/Director. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

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, filing office correspondence, appointment scheduling, processing medical records, and an introduction to medical office computer software. Pre-requisite: Acceptance into the Medical Assisting Program or Consent of Medical Assisting Coordinator/Director. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MAI 170(2)  Course ID:004093  Department Consent Required
Dosage Calculations
Provides a review of basic mathematics skills related to dosage calculations, a thorough knowledge of the systems of measurement and conversion, and application skills to perform dosage calculations. Pre-requisite: Acceptance into the Medical Assisting Program or Consent of Medical Assisting Coordinator/Director. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

MAI 200(3)  Course ID:004094  Pathophysiology for the Medical Assistant
Provides instruction related to common acquired diseases, congenital conditions, injuries, illnesses, and medical situations as related to the major body systems. Pre-requisite: (BIO 135 or BIO 137 and BIO 139) and (CLA 131 or AHS 115 or AHS 120 or MIT 103) or Consent of Medical Assisting Coordinator/Director. All Pre-requisites must be achieved with a grade of "C" or greater. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MAI 220(3)  Course ID:004095  Medical Assisting Laboratory Techniques II
Relates to laboratory procedures waived complexity testing performed in the physician's office laboratory. Stresses CLIA and OSHA regulations. Pre-requisite: MAI 120 with a grade of "C" or greater or Consent of Medical Assisting Coordinator/Director. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MAI 230(3)  Course ID:004096  Department Consent Required
Medical Insurance
Introduces fundamentals of insurance processing and coding for the medical office, with focus on proper procedures for accurate coding systems using the ICD, CPT and HCPCS coding system. Pre-requisite: Acceptance into the Medical Assisting Program or Consent of Medical Assisting Coordinator/Director. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MAI 240(4)  Course ID:004097  Medical Assisting Clinical Procedures II
Continues instruction and application techniques for specialty examination, diagnostic testing and treatment modalities. Emphasizes fundamentals and practical applications of minor office surgical procedures. Pre-requisite: MAI 140 with a grade of "C" or greater OR Consent of Program Coordinator. Lecture: 3 credits (45 contact hours). Lab: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MAI 250(3)  Course ID:004098  Medical Assisting Administrative Procedures II
Focuses on compiling and completing financial and insurance claim forms. Includes banking concepts, accounting systems frequently used in the medical office, payment procedures, insurance plans and claims, paper and electronic billing methods, and professional fees. Pre-requisite: MAI 150 with a grade of "C" or greater OR Consent of Program Coordinator. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MAI 270(3)  Course ID:004100  Pharmacology for the Medical Assistant
Examines pharmacology with concentration on prescriptions, drug nomenclature, classification of drugs, patient education, medication preparation and administration. Pre-requisite: (MAI 170 and BIO 135 or BIO 137 and BIO 139) and (AHS 115 or AHS 120 or CLA 131 or MIT 103) with a grade of "C" or better) or Consent of Medical Assisting Program Coordinator/Director. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MAI 281(1)  Course ID:004101  Medical Assisting Practicum
Provides introductory practical experience (unpaid) through observation and work assignments in a healthcare setting. Clinical: 1 credit (60 contact hours). Pre-requisite: Consent of Medical Assisting Program Coordinator/Director.

MAI 282(2 - 3)  Course ID:015672  Medical Assisting Externship
Allows the student to apply knowledge, perform administrative and clinical procedures, and develop professional attitudes for interacting with other professionals and consumers in the health care field by means of externship assignments (unpaid). Pre-requisite: MAI 281 and Consent of Medical Assisting Program Coordinator/Director. Practicum: 2.0 - 3.0 credits (120-180 contact hours).
Components: Practicum
Attributes: Technical

MAI 289(1 - 2)  Course ID:016764  Medical Assisting Assessment Preparation
Prepares student to assume the role of the Medical Assistant by preparing them for successful credentialing while providing the opportunity to apply critical thinking, cognitive skills and performance competencies. Pre-requisite: Consent of Program Coordinator. Laboratory: 1.0-2.0 credit (30-60 contact hours).
Components: Laboratory
Attributes: Technical

MAI 299(1 - 4)  Course ID:004341  Instructor Consent Required
Selected Topics: Medical Assisting: (Topic)
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. Pre-requisite: Consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical
MAT 011(3) Course ID:015623
Transitional Algebra
Provides individualized, accelerated, mastery-level progression through entry-level college mathematics. Pre-requisite competencies as defined by KY Council of Postsecondary Education. Note: A passing grade in this course does not necessarily indicate that all prerequisites for all entry-level college mathematics courses have been met. Pre-requisite: KCTCS Placement Exam. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 050(1 - 2) Course ID:004565
Developmental Mathematics Workshop
Provides supplemental academic support such as extra class sessions, tutoring, and/or increased monitoring to promote student success. 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. Co-requisite: Set by instructor. Laboratory: 1-2 credits (30-60 contact hours).
Components: Laboratory
Attributes: Remedial - Mathematics

MAT 055(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: Remedial - Mathematics, Course Also Offered in Modules

MAT 055A(1.6) Course ID:007338
Integers, Fractions and Decimals
Covers the properties of real numbers, prime factorization of whole numbers, rounding of whole numbers, and decimals to an indicated place value. Includes basic operations, order of operations, and absolute value on integers, fractions and decimals. Permits the conversion among fractions, decimals, and percents; evaluation of whole number powers of integers, fractions, and decimals; and the evaluation of square roots of perfect squares of integers, fractions, and decimals. Pre-requisite: KCTCS Placement examination. Lecture: 1.6 credits (24 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 055B(0.7) Course ID:007339
Algebraic Expressions
Includes the evaluation of algebraic expressions, simplifying algebraic expressions, solving problems involving ratio and proportion, and solving problems involving percent. Pre-requisite: MAT 055A. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 055C(0.7) Course ID:007340
Beginning Linear Equations
Uses both the addition and multiplication properties to solve a linear equation. Includes how to determine the length of the unknown side of a right triangle using the Pythagorean Theorem and to determine the perimeter, circumference, area, surface area, and volume of basic plane figures and solids. Covers how to solve applied problems using these competencies with real world applications. Pre-requisite: MAT 055B. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 061(4) Course ID:017297
Foundations of College Algebra
Prepares students to take College Algebra with College Algebra Workshop. Introduces operations on integers, decimals, and fractions; ratios, proportions, and percents; simplifying radicals and algebraic expressions; solving linear and quadratic equations; linear inequalities; solving formulas; factoring; slope and graphing lines. Pre-requisite: KCTCS Placement Policy. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 062(3) Course ID:007375
Intro to Workplace Mathematics
Prepares students for Business Mathematics, Applied Mathematics, and Technical Mathematics. Includes properties of algebra, using formulas, solving linear equations, percentages, ratios, proportions, plotting points, graphing lines, exponents, and measurement. Encourages applications of algebra and effective use of technology. Pre-requisite: MAT 055 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 065(3) Course ID:004556
Basic Algebra
Includes linear equations and inequalities, integer exponents, polynomials, factoring, equations of lines and their graphs, systems of linear equations, and applications. Pre-requisite: MAT 055 or KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics, Course Also Offered in Modules

MAT 065A(0.8) Course ID:007341
Linear Equations and Inequalities
Includes solving linear equations in one variable, literal equations for a specified variable, and linear inequalities. Covers writing sets using interval and set-builder notations and translating verbal statements into algebraic expressions. Pre-requisite: MAT 055 or KCTCS Placement examination. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 065B(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 065A. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 065C(0.8) Course ID:007343
Lines
Includes plotting points in the rectangular coordinate plane; graphing a linear equation in two variables using multiple methods; determining the slope of a line given two points, a graph, or an equation; determining the intercepts of a line; and determining if two lines are parallel, perpendicular, or neither based on slope. Pre-requisite: MAT 065B. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 065D(0.5) Course ID:007344
Factoring
Includes the factoring of polynomials by finding the greatest common factor, by grouping, and by using special products. Covers factoring general trinomials and solving polynomial equations by factoring. Pre-requisite: MAT 065C. Lecture: 0.5 credits (7.5 contact hours).
Components: Laboratory
Attributes: Remedial - Mathematics

MAT 065E(0.4) Course ID:007345
Systems of Linear Equations
Includes solving systems of linear equations in two variables using multiple methods and solving applied problems using these competencies with real world applications. Pre-requisite: MAT 065D. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 071(3) Course ID:017181
Foundations of Precalculus
Includes linear and absolute value equations and inequalities, linear equations in two variables, polynomials and factoring, exponential and radical expressions, quadratic equations, and systems of two linear equations. Pre-requisite: KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 075(4) Course ID:015659
Mathematical Literacy
Develops the mathematical thinking skills and understanding needed for non-math and non-science majors, in a one-semester course integrating numeracy, proportional reasoning, algebraic reasoning, and functions. Provides an alternate path to college-level math courses other than college algebra. Pre-requisite: MAT 055 or equivalent as determined by KCTCS placement examination. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 085(3) Course ID:007045
Intermediate Algebra
Includes rational expressions, radical expressions, rational exponents, graphing parabolas, inequalities, equations of lines, functions and applications, with emphasis on solving quadratic, rational, and radical equations. Pre-requisite: MAT 065 or MAT 075 or KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 096(1 - 2) Course ID:015815
Supplemental Mathematics
Provides academic support for students scoring below the system-wide standard into a quantitative-reasoning course. Serves as supplemental co-requisite for students with borderline test scores, as defined in the KCTCS course placement policy. If students withdraw from MAT 096, they must also withdraw from the co-requisite course. Co-requisite: A quantitative-reasoning course requiring supplemental instruction. Lecture: 1.0 - 2 credits (15 - 30 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 100(2) Course ID:002374
College Algebra Workshop
Provides parallel and supplemental review of algebra skills needed for success in college algebra for students with a Math ACT of 19-21. (Credits not available by special exam; withdrawal from MAT 100 requires withdrawal from MAT 150; can be offered pass/fail or letter grade basis.) Lecture: 2.0 credits (30 contact hours). Pre-requisite: Concurrent enrollment in MAT 150. NOTE: Effective Fall 2010 ACT 19.
Components: Lecture
Attributes: Other, Course Also Offered in Modules, Supplemental Mathematics

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. Pre-requisite: 1. MAT 061, MAT 062, MAT 065, MAT 071, MAT 075, or MAT 085, OR 2. Completion of MAT 055 and concurrent enrollment in MAT 105S, OR 3. KCTCS placement policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS

MAT 105S(1 - 2) Course ID:017289
Corequisite Remediation for Business Mathematics
Provides supplementary instruction for students who do not meet college readiness standards for MAT 105. Covers content necessary for student success in MAT 105. Corequisite: MAT 105. Lecture: 1.2 credits (18-30 contact hours).
Components: Lecture
Attributes: Other
MAT 110(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. Pre-requisite: 1. MAT 061, MAT 062, MAT 065, MAT 071, MAT 075, or MAT 085, OR 2. Completion of MAT 055 and concurrent enrollment in MAT 110S, OR 3. KCTCS placement policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules

MAT 110S(1 - 2) Course ID:017291
Corequisite Remediation for Applied Mathematics
Components: Lecture
Attributes: Other

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. Pre-requisite: 1. MAT 061, MAT 062, MAT 065, MAT 071, MAT 075, or MAT 085, OR 2. Completion of MAT 055 and concurrent enrollment in MAT 116S, OR 3. KCTCS placement policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules

MAT 116S(1 - 2) Course ID:017293
Corequisite Remediation for Technical Mathematics
Components: Lecture
Attributes: Other

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. Pre-requisite: 1. MAT 061, MAT 062, MAT 065, MAT 071, MAT 075, or MAT 085, OR Completion of MAT 055 and concurrent enrollment in MAT 126S, OR KCTCS placement policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS

MAT 126S(1 - 2) Course ID:017294
Corequisite Remediation for Technical Algebra and Trigonometry
Components: Lecture
Attributes: Other

MAT 141(3) Course ID:017208
Liberal Arts Mathematics
Serves as a course in quantitative reasoning and problem solving intended for liberal arts majors. Includes voting methods, apportionment, interest and investments, probability, statistics, and geometry. (Students may not receive credit for both this course and MAT 146.) Pre-requisite or Corequisite: College Readiness or concurrent enrollment in MAT 141-S. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 141S(1) Course ID:017209
Corequisite Remediation for Liberal Arts Mathematics
Provides supplementary instruction for students who do not meet college readiness standards for MAT 141. Covers content necessary for success in MAT 141. Co-requisite: MAT 141. Lecture: 1 credit hour (15 contact hours).
Components: Lecture
Attributes: Other

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. Pre-requisite: 1. Math ACT score of 19 or above, OR 2. Successful completion of MAT 085, MAT 075, MAT 126, or equivalent, OR 3. KCTCS placement policy including concurrent enrollment in MAT 146S as appropriate. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules

MAT 146S(1 - 2) Course ID:017295
Corequisite Remediation for Contemporary College Mathematics
Provides supplementary instruction for students who do not meet college readiness standards for MAT 146. Covers content necessary for success in MAT 146. Co-requisite: MAT 146. Lecture: 1-2 credit hours (15-30 contact hours).
Components: Lecture
Attributes: Other

MAT 150(3) Course ID:002376
College Algebra
Includes selected topics in algebra and analytic geometry. Develops manipulative skills and concepts required for further study in mathematics. Includes linear, quadratic, polynomial, rational, exponential, logarithmic and piecewise functions; systems of equations; and an introduction to analytic geometry. (Students may not receive credit for both MAT 150 and any other College Algebra or Pre-calculus course. Credit not available on the basis of special exam.) Pre-requisite: 1. Math ACT score of 22 or above, 2. Math ACT score of 19-21 with concurrent MAT 100 workshop, 3. Successful completion of MAT 061 with concurrent MAT 100 workshop, 4. Successful completion of MAT 071, MAT 085, MAT 126, or equivalent; or 5. KCTCS placement exam recommendation. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules

MAT 151(3) Course ID:017087
Introduction to Applied Statistics
Serves as an entry-level introduction to applied statistics useful for a variety of fields. Covers statistical terminology and the appropriate use of software for the calculation of descriptive statistics, basic probability, correlation and linear regression. Emphasizes understanding the uses and misuses of statistics in the real world. (Same as STA 151.) (Students may not receive credit for both this course and any of the following: STA 151, STA 200, STA 210, STA 215.) Pre-requisite: College Readiness in Mathematics. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 151S(1) Course ID:017074
Corequisite Remediation for Introduction to Applied Statistics
Provides supplementary instruction for students who do not meet college readiness standards for STA 151 or MAT 151. Covers content necessary for success in STA 151 or MAT 151 as needed. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other, Supplemental Mathematics

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. Pre-requisite: 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: MAT 155
Attributes: 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 pre-calculus course.) Lecture: 3 credits (45 contact hours). Pre-requisite: 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 - Quantitative Reasoning

MAT 159 Course ID:000543
Analytic Geometry and Trigonometry (4)
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. Pre-requisite: 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
Attributes: QR - Quantitative Reasoning

MAT 160(5) Course ID:005312
Precalculus
Prepares students to enroll in a calculus sequence. Includes trigonometric functions, exponentials and logarithms, graphs, polar coordinates, conic sections, and systems of nonlinear equations. Students may not receive credit for both MAT 160 and either College Algebra or Trigonometry. Credit is not available by special examination. Lecture: 5 credits (75 contact hours). Pre-requisite: 1. Math ACT score of 23 or above, 2. Placement exam recommendation, or 3. Consent of instructor.
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 161(3) Course ID:017175
Statistics and Algebra
Serves as the entry-level mathematics class for students in business and related fields. Provides a survey of algebra and statistics topics necessary to prepare students for Brief Calculus and Applied Statistics. Develops fluency in the manipulation of polynomial, rational, radical, exponential, and logarithmic functions in order to solve equations, inequalities, and application problems. Familiarizes students with the graphs of the aforementioned functions. Includes nonlinear systems of equations. Covers statistical terminology and the appropriate use of software for the calculation of descriptive statistics, basic probability, correlation and linear regression. (Students may not receive credit for both this course and any of the following: STA 151, MAT 151, MAT 150.) Pre-requisite: ACT Math of 22 or MAT 071 or MAT 085 or concurrent enrollment in MAT 161S. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning
MGT 101(3) Course ID:004892
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 Attributes: Technical

MGT 120(3) Course ID:004897
Personal Finance
Information needed to make intelligent choices and take effective action in the management of personal resources is provided. Topics include financial planning, buying, borrowing, saving, budgeting, investing, insurance, and taxes. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 160(3) Course ID:004899
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 Attributes: Technical

MGT 200(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. Pre-requisite: BAS 160 or MGT 160 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 210(3) Course ID:007114
Managing Quality
Introduces students to fundamental concepts, principles and practices used to manage and improve quality in organizations. Explores basic quality concepts including continuous improvement, customer focus, value-added concept, quality tools, statistical techniques, quality awards, quality standards, scientific management using data, designing products and services for quality, and the historic influences of leaders in quality management. Pre-requisite: BAS 160. Lecture: 3 credit hours (45 contact hours).
Components: Lecture Attributes: Technical

MGT 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 Attributes: Technical

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. Pre-requisite: MGT 283 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

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: MGT 283. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

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 Attributes: Technical

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. Pre-requisite: MGT 283 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 283(3) Course ID:004916
Principles of Management
Provides students with an overview of management beginning with the key functions of planning and decision making, organizing, leading and controlling. Explores the many aspects of management including human behavior, motivation, leadership, change and teams. Pre-requisite: BAS 160 or MGT 160 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 284(3) Course ID:004917
Applied Management Skills
A capstone course in which management theories and techniques 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. Pre-requisite: BAS 283/MGT 283 or prior supervisory experience. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 287(3) Course ID:005217
Supervisory Management
Students study the roles and responsibilities of the supervisor, emphasizing human relations skills while recognizing the behavioral factors of individuals and groups in the work environment. Conceptual knowledge base and skills to support the supervisor's role and responsibilities are identified and developed. Pre-requisite: MGT 283 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 292(3) Course ID:016855
Strategic Management
Introduces students to strategic planning and management concepts and processes in this capstone course. Provides in-depth examination of strategic planning and implementation. Provides a framework for internal and external organizational analysis. Applies decision-making, problem-solving, accounting and financial analysis in reviewing contemporary businesses and industries. Pre-requisite: MGT 283 or BAS 283. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIL 101(2) Course ID:015681
Military Mountaineering and Leadership
This course is designed to be an introductory course to military science with emphasis on the following: Goal-setting, Physical Fitness Planning, Stress and Time Management. Mountaineering (which includes terminology, tools, and skills, rope management, knots, and rappelling/belaying techniques), and Basic Marksmanship. Additionally, cadets will receive an overview of Army Officership and the leadership skills necessary to succeed in any chosen career. Special attention will be given to the opportunities afforded an Army officer. Satisfactory completion of this course may be used to fulfill a General Education Category F requirement at Western Kentucky University (WKU). Lecture: 2.0 credits (2 contact hours).
Components: Lecture Attributes: University Course (Western Kentucky University)

MIT 103(3) Course ID:004510
Medical Office Terminology
Introduces students to medical terminology including familiar elements, body systems, operative procedures, pharmacology, and methods of researching medical information including, but not limited to, names and descriptions of diseases and drugs. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

MIT 104(3) Course ID:004103
Medical Insurance
Introduces students to the basics of medical insurance including: insurance terminology, various coding systems, government programs, and general insurance procedures. Pre-requisite Or Co-requisite: MIT 103 or AHS 115 or CLA 131. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 106(3) Course ID:004104
Introduction to Medical Transcription
Provides experience in transcription of basic medical dictation: incorporating English usage, transcription skills, medical knowledge, and proofreading and editing skills while meeting progressively demanding accuracy and productivity standards. Pre-requisite: Computer Literacy course and OST 110 and (ENG 101 or OST 108) and (AHS 115 or CLA 131 or MIT 103). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 204(3) Course ID:004105
Medical Coding
Develops medical coding skills using government mandated coding systems as applied. Includes other reimbursement methods and medical insurance concepts. Pre-requisite Or Co-requisite: MIT 104, BIO 135 or Equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
MIT 205(3) Advanced Medical Coding
Course ID:004509
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. Pre-requisite: MIT 204 or MBS 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 227(3) Medical Office Software
Course ID:004108
Provides a working knowledge of computer medical practice management software in a simulated medical office setting. Prepares medical practice and office professionals to efficiently use practice management software in managing the operational, patient and financial data in medical offices and hospital environment utilizing hands on computer applications. Covers medical practice software skills including appointment scheduling, patient registration, procedural posting, electronic payment posting, patient billing and collections, report generation and file maintenance. Enables students to process insurance claim forms and complete electronic billing cycle using current medical billing software. Focus on accuracy is emphasized. Pre-requisite: MIT 104 & MIT 217. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 208(3) Instructor Consent Required
Inpatient Coding
Course ID:004507
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. Pre-requisite: MIT 204. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 212(1) Medications
Course ID:004506
Introduces the student to Pharmacology; the most commonly used drugs, their names, and classification; and drug reference books while stressing spelling. Pre-requisite: MIT 103 or AHS 115 or CLA 131 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

MIT 217(3) Medical Office Procedures
Course ID:004107
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 OR CIT 105 or OST 105 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 219(3) Coding Exam Preparation
Course ID:006970
Designed to prepare medical coding students to take a certifying exam to become a professional outpatient coder. Includes outpatient coding cases and review of medical terminology, basic anatomy, basic pathophysiology, reimbursement issues, and advanced coding guidelines for government mandated coding systems. Pre-requisite: (MIT 204 and MIT 205) or MBS 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

MIT 224(3) Medical Practice Management
Course ID:016402
Introduces students to medical practice management from roles of staff members in healthcare to skills and responsibilities of the manager in relation to compliance and regulatory agencies. It identifies the requirements of managing the revenue cycle, compliance regulations, human resources, health information, and the general business processes. Pre-requisite Or Co-requisite: MIT 230, MIT 217, MIT 104. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 222(3) Intro to Med Terms & Systems
Course ID:016393
Introduces medical terminology including root words, prefixes and suffixes as well as general medical terms. Introduces medical terms related to the skeletal, muscular, blood, lymph, cardiovascular and respiratory systems. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 1031(1) Intermediate Body Systems
Course ID:016394
Introduces medical terms related to the blood, lymph, cardiovascular, respiratory, digestive and urinary systems as well as skin. Pre-requisite: MIT 1031. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
MIT 2193(1)  
**Course ID:** 017220  
*Diagnostic coding*

- Designed to prepare medical coding students to take a certifying exam to become a professional outpatient (physician-based) 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-10-CM, and HCPCS coding systems. Pre-requisite: MIT 2192. Lecture: 1 credit (15 contact hours).

**Components:** Lecture

MIT 2241(1)  
**Course ID:** 016875  
*Managing the Medical Office*

- Emphasizes the healthcare setting, medical office communications, and human resource management. Pre-requisite OR Co-requisite: MIT 230, MIT 217, MIT 104. Lecture: 1 credit (15 contact hours).

**Components:** Lecture

MIT 2242(1)  
**Course ID:** 016876  
*Managing the Medical Record*

- Focuses on the correct use, care, regulations and rules concerning medical records. Pre-requisite OR Co-requisite: MIT 2241, MIT 230, MIT 217, MIT 104. Lecture: 1 credit (15 contact hours).

**Components:** Lecture

MIT 2243(1)  
**Course ID:** 016877  
*Medical Office Revenue Cycle*

- Emphasizes accounting and payroll as well as marketing of the medical office. Pre-requisite OR Co-requisite: MIT 2242, MIT 230, MIT 217, MIT 104. Lecture: 1 credit (15 contact hours).

**Components:** Lecture

MIT 2281(1)  
**Course ID:** 016403  
*Intro To E-Health Records*

- Provides an introduction to electronic health records and gives students a working knowledge of industry-standard electronic medical records software program emphasizing ethical and regulatory issues and methods. Pre-requisite: MIT 227 or consent of instructor. Lecture: 1 credit (15 contact hours).

**Components:** Lecture

MIT 2282(1)  
**Course ID:** 016404  
*Clinical Office Administration*

- Provides a working knowledge of computerized medical records software to simulate tasks including to create/ maintain patient records and maintain office scheduling. Pre-requisite: 2281 or consent of instructor. Lecture: 1 credit (15 contact hours).

**Components:** Lecture

MIT 2283(1)  
**Course ID:** 016405  
*Clinical Tools and Procedures*

- Provides a working knowledge of computerized medical records software to complete scenario based projects to use templates and create/analyze reports. Emphasizes test and diagnosis codes. Pre-requisite: 2282 or consent of instructor. Lecture: 1 credit (15 contact hours).

**Components:** Lecture

MIT 2301(1)  
**Course ID:** 016406  
*Intro to Medical Info Mgmt*

- Identify rules and regulations of medical filing systems and procedures. Pre-requisite: Digital Literacy. Lecture: 1 credit (15 contact hours).

**Components:** Lecture

MIT 2302(1)  
**Course ID:** 016407  
*Applied Medical Info Mgmt*

- Apply rules and regulations of medical filing systems and procedures. Emphasizes management of both hard copy and magnetic media using alphabetic, numeric, chronologic, and color-coded filing systems. Pre-requisite: MIT 2301. Lecture: 1 credit (15 contact hours).

**Components:** Lecture

MIT 2303(1)  
**Course ID:** 016409  
*Records Mgmt/Legal Issues*


**Components:** Lecture

MIT 2951(1)  
**Course ID:** 016840  
*Office Skills Development*

- Introduce a simulated office setting. Acquire knowledge, skills and abilities involved with managing work flow processes and procedures, the work environment. Apply decision making and working autonomously. Pre-requisite: Consent of Program Coordinator. Lecture: 1 credit (15 contact hours).

**Components:** Lecture

MIT 2952(1.5)  
**Course ID:** 016841  
*Simulations/Work-based Learning*

- Complete a diverse set of learning activities and assigned tasks utilizing medical office simulation software or participate in a work-based learning experience such as internship/apprenticeship. Analyze and evaluate documents for data entry, storage, and data retrieval. Pre-requisite: MIT 2951 or Consent of Program Coordinator. Practicum: 1.5 credits (90 contact hours).

**Components:** Practicum

**MLT Medical Laboratory Technology**

**MLT 101(3)  **
**Course ID:** 004073  
*Introduction to the Clinical Laboratory*

- Includes an orientation to the laboratory and management structure, professional organizations, professional ethics, communication, and record keeping. Covers medical terminology and abbreviations, quality assurance procedures, laboratory safety rules and procedures, specimen processing, laboratory automation, and basic immunology. Introduces the student to the various laboratory departments. Pre-requisite: Admission into the MLT program or permission of the MLT Program Director or MLT Clinical Coordinator. Lecture/Lab: 3 credits (45 contact hours).

**Components:** Laboratory, Lecture  
**Attributes:** Technical

**MLT 111(2)  **
**Course ID:** 004177  
*Urinalysis*

- Focuses on methodology and clinical significance of urine chemical analysis, interventions with chemical analysis procedures, screening methods used in diagnostic determinations, collection and handling of specimens, and the characteristics and clinical significance of formed elements of the urine. Includes the physiological function of the kidneys and diseases which affect the urinary system. Pre-requisite: Admission into the MLT program or permission of the MLT Program director/coordinator. Pre-requisite OR Co-requisite: MLT 101 or PHB 170. If taken as a pre-requisite, a minimum grade of "C". Lecture/Lab: 2 credits (45 contact hours).

**Components:** Lecture  
**Attributes:** Technical

**MLT 115(2)  **
**Course ID:** 004178  
*Serology*

- Introduces basic immunological principles. Includes applications of serological testing for the diagnosis and monitoring of diseases and other antigenic responses. Pre-requisite: Admission into the MLT program or permission of the MLT program director/coordinator. Lecture/Lab: 2.0 credits (37.50 contact hours).

**Components:** Lecture  
**Attributes:** Technical

**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. Pre-requisite: Admission into the MLT program or permission of the MLT program director/coordinator. Pre-requisite OR Co-requisite: MLT 101. If taken as a pre-requisite, a minimum grade of "C". Lecture/Lab: 3.0 credits (105 contact hours).

**Components:** Lecture  
**Attributes:** Course Also Offered in Modules, Technical
MLT 205(3) Course ID:004181
Clinical Microbiology I
Introduces the application of microbiological principles to clinical laboratory practice. Includes safety and use of standard precautions, staining, selection and use of media, specimen processing, cultivation and identification of bacteria, and antimicrobial susceptibility testing.
Pre-requisite: [MLT 101 and MLT 119] or BIO 225 with a grade of "C" or greater; admission into the MLT program; permission by MLT program director/coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MLT 206(2) Course ID:004182
Clinical Microbiology II
Continues with the application of microbiological principles to clinical laboratory practice. Includes mycology, parasitology, virology, and mycobacteriology. Pre-requisite: Admitted into the MLT program; permission of the MLT program director/coordinator. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MLT 207(2) Course ID:009286
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/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MLT 208(3) Course ID:006399
Clinical Diagnostic Microbiology I
Discusses theoretical concepts, disease processes, identification schemes, diagnostic characteristics, biochemical reactions, susceptibility testing, and isolation techniques of gram positive and gram negative microorganisms associated with infections diagnosed in the clinical laboratory microbiology department. Pre-requisite: MLT 207 with a grade of "C" or better OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

MLT 209(2) Course ID:006400
Clinical Diagnostic Microbiology II
Exposes the student to gram positives, spore forming gram positive bacilli, virology, mycobacterium, mycoplasma, spirochetes, mycology and parasitology with focus on the clinical diseases and diagnostic procedures in the microbiology department of the clinical laboratory. Pre-requisite: MLT 208 with a grade of "C" or better OR permission of the MLT Program Director/MLT Clinical Coordinator Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MLT 215(4) Course ID:004183
Hematology I
Covers hematology and classic methodologies of standard hematology procedures. Includes the principles of various automated hematology analyzers, histograms and scattergrams. Provides students with the opportunity to perform basic hematology and coagulation procedures, correlate laboratory data to aid in diagnosis, and describe methodologies of procedures and their clinical significance. Includes mechanisms of coagulation, routine coagulation testing, disease states associated with coagulation abnormalities, platelet evaluation, fibrinolysis and anticoagulant therapy. Pre-requisite: MLT 101 with a grade of "C" or greater OR admission into the MLT program OR permission by MLT program coordinator. Lecture/Lab: 4.0 credits (105 contact hours). Components: Lecture
Attributes: Technical

MLT 216(3) Course ID:004184
Hematology II
Continues the study of hematology. Includes a study of anemias, leukemias, lymphomas, miscellaneous abnormal white blood cell disorders to assess hematologic changes and correlate laboratory data to diagnosis. Covers body fluids and other special hematologic procedures. 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
Attributes: Technical

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 fundamental hematometrical parameters to aid in diagnosis. Pre-requisite: Admission into the MLT program OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MLT 218(4) Course ID:006402
Clinical Hematology
Continues the study of hematology. Includes hemostasis, anemias, leukemias, lymphomas, miscellaneous abnormal white blood cell disorders, body fluid analysis and other special hematological procedures. Pre-requisite: A grade of C or better in MLT 217 OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 4.0 credits. (75 contact hours).
Components: Lecture
Attributes: Technical

MLT 225(2) Course ID:004185
Immunohematology I
Includes the principles of immunology in relation to blood banking, blood group systems, donor processing and screening, antibody screening, and blood components. Pre-requisite: MLT 215 with a grade of "C" or greater; admission into the MLT program; permission by MLT program director. Lecture: 1.0 credit (15 contact hours). Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MLT 226(2) Course ID:004186
Immunohematology II
Includes antibody screening and panel interpretation, compatibility testing, viral markers and related disease states, hemolytic disease, and HLA markers. Pre-requisite: MLT 225 or Permission by MLT Program Director/Coordinator. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MLT 227(4) Course ID:004570
Immunohematology
Covers principles and practices in blood banking, including topics such as blood group systems, blood components, antibody identification and compatibility testing. Pre-requisite: Admission into the MLT program OR permission of the MLT Program Director/MLT Clinical Coordinator Lecture/Lab: 4 credits (105 contact hours).
Components: Lecture
Attributes: Technical

MLT 233(3) Course ID:004187
Clinical Chemistry I
Provides an overview 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
Attributes: Technical

MLT 234(2) Course ID:004188
Clinical Chemistry II
Presents the physiology and testing of liver function, hormones, electrolytes and acid-base metabolism. Includes toxicology and therapeutic drug monitoring, tumor markers, and special 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
Attributes: Technical

MLT 247(3) Course ID:006403
Introduction to Clinical Chemistry
Introduces the student to a variety of automated instrumentation and methodologies of selected chemistry test procedures. Exposes student to the basic principles as well as the techniques used in clinical chemistry to assess carbohydrates, non-protein nitrogen compounds, amino acids and proteins, lipids and lipoproteins, and enzymes as related to clinical diagnosis. Acquaints the student with basic laboratory mathematics and quality assurance procedures utilized in the clinical laboratory department. Pre-requisite: Admission into the MLT program OR permission of the MLT Clinical Coordinator/MLT Program Director. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MLT 248(3) Course ID:006404
Advanced Clinical Chemistry
Continues the study of clinical chemistry. Presents a study of lipids and lipoproteins, acid/base balance, electrolytes, endocrine system, liver, gastrointestinal and pancreatic function, therapeutic drug monitoring, and toxicology. Pre-requisite: MLT 247 with a grade of "C" or greater. Lecture/ Lab: 3.0 credits (60 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 and 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 ensure adequate clinical education and training. Each clinical practicum is designed to develop skills with strong supervisory instruction in all assigned departments. 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 (105 contact hours). Pre-requisite: MLT 277(4 - 5) Lecture: 2.0 credits (105 contact hours).
Components: Clinical

MLT 279(4 - 5) Course ID:004254
Practicum II
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical practicum is designed to develop skills with strong supervisory instruction in all assigned departments. 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 (105 contact hours). Pre-requisite: MLT 278(4 - 5) Lecture: 2.0 credits (105 contact hours).
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. Practicum: 4-5 credits (240-300 contact hours).

Components: Practicum
Attributes: Course Also Offered in Modules, Technical

MLT 1191(1,5)  Course ID:005338
Applied Laboratory Part 1
Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Hematology, Clinical Microbiology, and Urinalysis. 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. Pre-requisite: MLT 101 with a grade of "C" or greater and 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. Pre-requisite: 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 a prescribed schedule of rotations in various departments of the laboratory for each individual student by the CLT program director. Pre-requisite: MLT 101 with a grade of "C" or greater. OR Admission into the MLT program. Practicum: 2 - 2.5 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 MLT program director. Pre-requisite: MLT 2791 with a grade of "C" or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MNA Medicare Nurse Aid

MNA 100(3)  Course ID:001772
Medicaid Nurse Aide
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. Focuses on communication, infection control, safety, resident/patient rights, and basic nursing skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396 and 907 KAR 1:450. Lecture/ Lab: 3.0 credits (75 contact hours). (45:1 ratio). Components: Lecture Course Equivalents: NAA 100
Attributes: Technical

MNG Mining Technology

MNG 102(3)  Course ID:007356
Introduction to Mine Engineering and Mining Technology
Provides orientation to the mining engineering and mining technology professions. Includes introduction to key mining engineering activities and functions, mining methods and equipment, and health and safety subsystems. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

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, permittivity, underground and surface law, solid-state, and national instruments and applications. Co-requisite: MNG 125. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

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, permittivity and maintenance. Co-requisite: MNG 123. Laboratory: 1.0 credits (30 contact hours).

Components: Laboratory
Attributes: Technical

MNG 150(3)  Course ID:000587
Mining Laws
Provides theoretical, 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
MRN 100(3)  
Course ID: 006705
Intro to Marine Technology
Provides fundamental concepts of naval science expected of personnel working aboard an inland towing vessel. Includes basic terminology, types of equipment encountered aboard the vessel, skill 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
Attributes: Technical

MRN 101(3)  
Course ID: 006706
Anatomy of a Towboat
Introduces components found on modern towboats with emphasis on an overview of all areas of the vessel from the wheelhouse to the engine room to the external components. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MRN 102(3)  
Course ID: 006707
Basic Marine Safety
Provides an overview of risk-based decision making skills for assessing and managing marine hazards to prevent marine accidents or casualty. Lecture: 3 credits (45 contact hours).
Components: Lecture
Same As Offering: MRN 102
Attributes: Course Also Offered in Modules, Technical

MRN 103(3)  
Course ID: 007412
Applied Marine Weather
Covers fundamental maritime weather concepts to plan safe and efficient voyages. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MRN 104(3)  
Course ID: 007413
Marine Crew Wellness
Examines how nutrition, exercise, and disease affect the crewmembers’ ability to maintain a U.S. Coast Guard license. Focuses on nutrition and exercise programs while working, and prevention of disease. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MRN 199(6)  
Course ID: 006708
Marine Co-Op Experience I
Gives students experience in a higher level position in the marine industry. Provides compensated on-the-job work experience under the supervision of a qualified affiliate of the industry. Pre-requisite: 360 hours of river industry experience. Co-requisite: Current employment with the company providing the co-op experience. Co-Op: 6 credits (450 contact hours).
Components: Co-Op
Attributes: Technical

MRN 200(3)  
Course ID: 006709
Shipboard Deck Operations
Provides specific responsibilities, policies, training, safety and rigging procedures for towboat personnel. Pre-requisite: MRN 100. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

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 an emphasis on the history and interpretation of the rules. Lecture: 3 credits (45 contact hours).
Components: Lecture
Same As Offering: MRN 201
Attributes: Technical

MRN 202(3)  
Course ID: 006711
Piloting and Navigation
Identifies the effect of inland waterway prevailing conditions on vessels; provides instruction on locking procedures, radio telephone regulations, hydrology, and piloting skills. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MRN 203(3)  
Course ID: 006712
Environmental Protection Rules
Provides analysis of environmental regulations governing the marine industry. Explores the environmental practices of vessels on the inland waterway systems and the governing agencies which establish industry regulations. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MRN 204(5)  
Course ID: 006713
Basic Marine Diesel
Introduces the various systems involved in the operation of a diesel engine. Includes the application of the knowledge of diesel operation to maintenance and troubleshooting exercises. Pre-requisite: MRN 206. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MRN 205(3)  
Course ID: 006714
Marine Electrical Systems II
Explores and applies the theory of electricity with an emphasis on power systems, circuits, safety procedures, and maintenance measures needed to maintain electrical systems aboard towing vessels. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

MRN 206(5)  
Course ID: 006715
Marine Diesel
Introduces the operation and components of a marine diesel engine with emphasis on diesel engine theory, safety precautions, internal and external components, and contributing operation systems. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

MRN 207(3)  
Course ID: 006716
Marine Diesel II
Identifies the various systems involved in the operation of a marine diesel engine, including the application of the knowledge of diesel operation to maintenance and troubleshooting exercises. Pre-requisite: MRN 206. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MRN 208(3)  
Course ID: 006717
Inland River Systems
Explores the U.S. inland waterway system and its tributaries as they relate to the inland marine industry and the movement of cargos. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Offering: MRN 208
Attributes: Technical

MRN 210(5)  
Course ID: 007414
Marine Fluid Systems
Incorporates practical experience in fluid power theory, component identification and application, schematic reading, and basic calculations related to marine fluid systems. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

MRN 214(4)  
Course ID: 007415
Marine Refrigeration Systems
Introduces the fundamentals of refrigeration, including use of tools, test equipment, materials, environmental issues, and safety. Lecture/Lab: 4.0 credits (69 contact hours).
Components: Lecture
Same As Offering: MRN 214
Attributes: Technical

MRN 299(6)  
Course ID: 006720
Marine Co-Op Experience II
Gives students further experience in a higher level position in the marine industry. Provides supervised on-the-job work experience directly in line with the students' educational objective. Pre-requisite: MRN 199. Co-requisite: Current employment with the company providing the co-op experience. Co-Op: 6 credits (450 contact hours).
Components: Co-Op
Attributes: Technical

MSE 201(3)  
Course ID: 005596
Introduction to Materials Science
Microscopic and macroscopic structure as related to the properties of materials with engineering applications. Pre-requisite: CHE 105, MA 113. Co-requisite: MA 114. Lecture: 3 credits (45 contact hours).
Components: Lecture
Same As Offering: MSE 201, MSE 201
Attributes: Other, University Course (University of Kentucky)

MSG 100(4)  
Course ID: 003966
Musculoskeletal Anatomy & Physiology I
Provides extensive knowledge of the skeletal system and major joint articulations and an introduction to the muscular 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
Attributes: Technical

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
Attributes: Technical

MSG 117(4)  
Course ID: 016866
Musculoskeletal Anatomy & Physiology I
Introduces the skeletal system and major joint articulations. Integrates the skeletal system with the muscular system, beginning with basic terminology and advancing to the fundamental connection with muscle and neuromuscular tissue. Pre-requisite: AHS 115 or CLA 131 or MIT 103. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

MSG Massage Therapy
MSG 119(4) Course ID:016667
Musculoskeletal Anatomy & Physiology II
Details muscular interactions at major joint articulations including biomechanical concepts. Expands students’ abilities to locate and affect muscles, joints, and innervations of the upper and lower extremities. Pre-requisite: MSG 119 Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

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 Attributes: Technical

MSG 132(3) Course ID:016668
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 117. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

MSG 134(3) Course ID:016669
Massage Techniques II
Extends students’ knowledge of the skeletal system and major joint articulations. Introduces the muscular system of the human body, beginning with basic terminology and advancing through the fundamentals of muscle and neuromuscular tissues. Enhances the students’ skills for delivering an improved one-hour full body therapeutic massage. Pre-requisite: MSG 132. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

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 muscular 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 lab); Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MSG 205(3) Course ID:005521
Advanced Clinical Massage I
Prepares the student to integrate the knowledge and skills of advanced massage techniques and integrating them in a clinical setting, including the rehabilitation of orthopedic conditions and injuries. Pre-requisite: MSG 125. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MSG 210(3) Course ID:005526
Advanced Clinical Massage II
Prepares students to integrate their massage practice into a clinical setting, including the rehabilitation of orthopedic conditions and injuries. Includes patient assessment, advanced orthopedics, and rehabilitative and preventative massage. Pre-requisite: MSG205. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

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. Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

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. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MSG 232(3) Course ID:016870
Advanced Clinical Massage I
Prepares the student to integrate the knowledge and skills of advanced massage techniques into a clinical setting. Pre-requisite: MSG 134. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

MSG 234(3) Course ID:016873
Advanced Clinical Massage II
Prepares students to integrate their massage practice into a clinical setting, including the rehabilitation of orthopedic conditions and injuries. Expands the students’ involvement in patient assessment, advanced orthopedics, and the use of rehabilitative and preventative massage techniques. Pre-requisite or Co-requisite: MSG 232. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

MSG 287(1 - 6) Course ID:016249
Massage Therapy Practicum and Special Topics:
Topics
This course addresses various massage therapy topics, issues, and trends. It also allows students to practice techniques already acquired, and to demonstrate mastery of new ones covered in the topics portion. Topics may vary from semester to semester at the discretion of the instructors: course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Massage Therapy Certificate. Practicum: 1-6 credits (60-360 contact hours).
Components: Practicum Attributes: Technical

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. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MST 201(2) Course ID:001779
Advanced Hydraulic Systems Lab
The advanced hydraulic systems lab will cover design, repair, and troubleshooting of hydraulic systems. Pre-requisite: FPX 100, FPX101. Laboratory: 2 credits (90 contact hours).
Components: Laboratory Attributes: Technical

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. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

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. Pre-requisite: (ENG 110 and FPX 100) or Consent of Instructor. Co-requisite: MST 207. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

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 (90 contact hours). Pre-requisite: (ENG 111 and ENG 113 and FPX 101) or Consent of Instructor. Co-requisite: MST 206.
Components: Laboratory Attributes: Technical

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 6-8-10 method, and use of the transit level, brick spacing and modular rule focusing on laying straight and plumb brick to the line, bricking gables and building columns. Covers application techniques for setting up different types of masonry materials, marking off layout lines and erecting batter boards along with techniques employed in different types of weather and climates. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 113(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. Pre-requisite: MSY 105 with a grade of C or higher or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 198(3) Course ID:001657
Instructor Consent Required
Practicum I
Provides supervised on-the-job work experience related to the students educational objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Consent of Instructor: Practicum: 3.0 credits (90 contact hours).
Components: Practicum Attributes: Technical

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. Pre-requisite: [(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 Attributes: Technical

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, Pre-requisite: [(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 Attributes: Technical
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. Pre-requisite: MSY 205 with a grade of "C" or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 233(3)  Course ID:001663
Special Techniques in Brick Construction
Provides practice in constructing a variety of walls including 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 perched masonry lintels, and laying of paving brick in a herringbone pattern. Pre-requisite: MSY 105 with a grade of "C" or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 245(3)  Course ID:001664
Anchors and Reinforcement
Presents 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 perched masonry lintels, and laying of paving brick in a herringbone pattern. Pre-requisite: MSY 105 with a grade of "C" or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 251(3)  Course ID:001665
Concrete Finishing
Focuses on theory and techniques inherent in the art of concrete finishing, laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 253(3)  Course ID:001666
Masonry Floors and Steps
Provides students with the opportunity to lay paving brick, steps, and flagstone floors including laying different types of patterns. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 257(3)  Course ID:001668
Stone
Includes identifying the types of stone and the different types of bonds used in stone masonry. Pre-requisite: MSY 105 with a grade of "C" or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 275(3)  Course ID:001669
Fireplace Construction
Presents different types and styles of indoor and outdoor fireplaces, and the principles of layout, drafting and drawing a fireplace. Includes finishing dimensions of fireplace opening, fireplace layout, setting the flue lining, and applying a chimney cap. Pre-requisite: MSY 205 with a grade of C or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

MSY 291(1 - 3)  Course ID:001670
Masonry Applications
Provides students with additional opportunity to refine skills. Lab: 1.0 - 3.0 credits (45-135 contact hours).
Components: Laboratory Attributes: Technical

MSY 298(3)  Course ID:001671
Instructor Consent Required
Pre-requisite: Consent of Instructor, Practicum: 3.0 credits (90 contact hours).
Components: Practicum Attributes: Technical

MUS 100(3)  Course ID:000883
Introduction to Music
Introduces the elements of music as they apply to the listening experience. Emphasizes the development of an awareness and understanding of musical styles from the Middle Ages to the present. Designed for the non-music major who has no background in music and is not intended to fulfill a program course requirement for music majors. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities, Course Also Offered in Modules

MUS 104(3)  Course ID:004548
Introduction to Jazz History
A survey of the many facets of jazz music. Designed to follow stylistic trends as developed from 19th century African and European influences to the modern forms of today. The study of significant composers, performers, and terminology associated with this uniquely American art form through listening assignments, reading and discussion activities. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

MUS 106(3)  Course ID:006188
Music in Film
Presents a survey of the history of film from the silent era to the present. Develops critical listening, viewing, and analytical skills in relation to the function of music in film. Explores various cultural, artistic traditions which inform the musical styles in film. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities, University Course (Morehead State University)

MUS 120(3)  Course ID:004609
Music Technology I
Introduces the use of technology as a tool for music creativity and productivity. Includes knowledge of how to create various styles of contemporary music utilizing loop and sampling based technology, creation of wav files, MP3 files, CD layout, and class projects. Pre-requisite: MUS 174 or Consent of Instructor. Lecture: 1 credit (15 contact hours), Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Other

MUS 150(1)  Course ID:002231
Class Instruction in Piano I
Introduces the fundamentals of piano playing to beginners. Lab: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Other

MUS 151(1)  Course ID:002232
Class Instruction in Piano II
Develops the fundamentals of piano playing on a second level, with advanced beginner music and technique. Pre-requisite: MUS150. Lab: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Other

MUS 152(1)  Course ID:002233
Class Instruction in Piano III
Develops the techniques and musical content of piano playing on an upper intermediate level, with an emphasis on expanded repertoire. Pre-requisite: MUS 151. Lab: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Other

MUS 153(1)  Course ID:002234
Class Instruction in Piano IV
Develops the technique and musical content of piano playing on an upper intermediate level, with an emphasis on upper intermediate repertoire. Pre-requisite: MUS152. Lab: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Other

MUS 155(1)  Course ID:002235
Instructor Consent Required
Voice Class for Non-Music Majors
Includes applied voice group instruction for non-music majors with emphasis on basic breathing and vocal technique, elements of music notation, and diction. May be repeated for a maximum of 2 credits. Pre-requisite: Consent of Instructor. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

MUS 158(3)  Course ID:004584
Music Psychology
Provides a broad introduction to the psychology of music. Cover topics such as the effects of music on behavior, music perception, music and emotion, music and cognition, and music and learning, with an emphasis on musical psychology research. Prerequisites: MUS 100 and MUS 200. 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities

MUS 174(3)  Course ID:005939
Introduction to Music Technology
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. Pre-requisite: MUS 120 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours), Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Other

MUP 102(1 - 3)  Course ID:002243
Instructor Consent Required
Voice Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
Components: Laboratory Attributes: Other

MUP 123(1 - 3)  Course ID:002245
Instructor Consent Required
Classical Guitar Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
Components: Laboratory Attributes: Other

MUP 201(1 - 3)  Course ID:002246
Instructor Consent Required
Piano Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
Components: Laboratory Attributes: Other

MUP 223(1 - 3)  Course ID:003978
Instructor Consent Required
Classical Guitar (Second Level) Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
Components: Laboratory Attributes: Other

MUS 106(3)  Course ID:006188
Music in Film
Presents a survey of the history of film from the silent era to the present. Develops critical listening, viewing, and analytical skills in relation to the function of music in film. Explores various cultural, artistic traditions which inform the musical styles in film. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities, University Course (Morehead State University)

MUS 120(3)  Course ID:004609
Music Technology I
Introduces the use of technology as a tool for music creativity and productivity. Includes knowledge of how to create various styles of contemporary music utilizing loop and sampling based technology, creation of wav files, MP3 files, CD layout, and class projects. Pre-requisite: MUS 174 or Consent of Instructor. Lecture: 1 credit (15 contact hours), Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Other

MUS 150(1)  Course ID:002231
Class Instruction in Piano I
Introduces the fundamentals of piano playing to beginners. Lab: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Other

MUS 151(1)  Course ID:002232
Class Instruction in Piano II
Develops the fundamentals of piano playing on a second level, with advanced beginner music and technique. Pre-requisite: MUS150. Lab: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Other

MUS 152(1)  Course ID:002233
Class Instruction in Piano III
Develops the techniques and musical content of piano playing on an upper intermediate level, with an emphasis on expanded repertoire. Pre-requisite: MUS 151. Lab: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Other

MUS 153(1)  Course ID:002234
Class Instruction in Piano IV
Develops the technique and musical content of piano playing on an upper intermediate level, with an emphasis on upper intermediate repertoire. Pre-requisite: MUS152. Lab: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Other

MUS 155(1)  Course ID:002235
Instructor Consent Required
Voice Class for Non-Music Majors
Includes applied voice group instruction for non-music majors with emphasis on basic breathing and vocal technique, elements of music notation, and diction. May be repeated for a maximum of 2 credits. Pre-requisite: Consent of Instructor. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other
MUS 172(3)  Course ID:016799  
Theory I for Bluegrass Music Majors
Introduces the basic materials of musical organization, focusing on music reading, rudiments of notation, pitch, scale, tonal, and rhythmic organization, melodic construction, simple harmonic vocabulary, and beginning aural training. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

MUS 173(3)  Course ID:016800  
Music Theory II for Bluegrass Music Majors
Continues the study of the basic materials of musical organization, focusing on more advanced music reading and music notation. Introduces modal scales, the Nashville Number System, and bluegrass song structures. Prerequisite: MUS 172. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

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, tonal, and rhythmic organization, melodic construction, simple harmonic vocabulary, and beginning aural training. Uses individual composition and improvisation exercises to approach much of this material. Ability to read music is not a prerequisite. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

MUS 175(1)  Course ID:006791  
Instructor Consent Required Jazz Ensemble
Introduces the study of jazz through performance and may be repeated to a maximum of four credits. Pre-requisite: Consent of Instructor. Lab: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Other

MUS 187(1)  Course ID:002239  
Instructor Consent Required Concert Band
Continues instrumental music experience through participation in a large concert band. May be repeated to a maximum of four credits. Pre-requisite: Ability to read music and play a band instrument. Laboratory: 1 credit (15 contact hours).

Components: Laboratory
Attributes: Other

MUS 192(1)  Course ID:002237  
University Chorus
Includes choral literature and performance requiring attendance at up to five rehearsals per week. May be repeated up to 3 times for a total of 4 credits. May require audition and/or consent of instructor. Pre-requisite: Audition and consent of instructor. Lab: 1 credit (15-45 contact hours).

Components: Laboratory
Attributes: Other

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 names, places, events, and styles in music, as well as important historical and sociological trends which will be presented within the context of the American experience. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

MVC 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: Cultural Studies, AH - Arts and Humanities

MUS 208(3)  Course ID:004775  
World Music
A geographic survey of selected music cultures throughout the world with hands-on experience playing music of diverse cultures, audio/video examples of music-cultures in performances, reading and writing assignments, and attendance and reporting at live music events. 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: AH - Arts and Humanities

MVC 222(3)  Course ID:002253  
History and Sociology of Rock Music
Provides a listening survey course, with a chronological approach, covering the years 1950-present. Emphasizes both the music and the sociological climate reflected and advocated by the music. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

MUS 223(3)  Course ID:006581  
Music for Elementary Teachers
Covers music rudiments of music theory and methods for teaching music to elementary school children. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

MVC 261(2)  Course ID:000692  
Teaching Music in the Elementary Grades I
Develops musicianship, skills, and techniques teachers need to direct musical activities effectively in the elementary classroom. Introduces music fundamentals and teaching materials through active participation in musical activities, focusing on music education appropriate for elementary grades. Should be taken by classroom teachers and non-music majors and followed by MUS 261. Lecture/Lab: 2 credits (45 contact hours).

Components: Lecture
Attributes: Other

MVC 261(2)  Course ID:006899  
Teaching Music in the Elementary Grades II
Builds on the musicianship skills and techniques learned in MVC 260. Develops the process of selecting and teaching musical materials appropriate for elementary-aged children. Introduces methods of integrating music across the elementary curriculum. Should be taken immediately following completion of MUS 260. Pre-requisite: MUS 260. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

MVC 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. Pre-requisite: MUS 100 or consent of the instructor. Lecture: 1-3 credits (15-45 contact hours).

Components: Lecture
Attributes: Other

NAA 100(3)  Course ID:004611  
Nursing Assistant Skills I
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. The focus is communication, infection control, safety, resident/patient rights, and basic nursing skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture: 3 credits (75 contact hours).

Components: Lecture
Course Equivalents: MNA 100
Attributes: Course Also Offered in Modules, Technical

NAA 115(3)  Course ID:004612  
Nursing Assistant II
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings. Builds upon MNA 100/NAA 100 and prepares the student to perform advanced nursing assistant skills. Pre-requisite: ((MNA 100 or NAA 100) with a grade of “C” or above within one year) or Active Status on the Kentucky Nurse Aide Registry (in good standing) or consent of instructor. Lecture: 2.0 credits (30 contact hours) Lab: 1.0 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

NAA 125(6)  Course ID:004613  
Advanced Nursing Assistant
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings. Focuses on communication, infection control, safety, resident/patient rights while preparing the student to perform advanced nursing assistant skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture/ Lab: 6.0 credits (150 contact hours).

Components: Lecture
Attributes: Technical

NAA 1021(1)  Course ID:016419  
Health Unit Coordinating
Provides communication skills and safety duties and responsibilities of the health unit coordinator. Lecture: 1 credit (15 contact hours).

Components: Lecture

NAA 1022(1)  Course ID:016420  
Health Unit Management
Provides knowledge and skills and responsibilities regarding confidentiality and legal and ethical issues. Pre-requisite: NAA 1021 Lecture: 1 credit (15 contact hours).

Components: Lecture

NAA 1023(1)  Course ID:016421  
Transcription of Orders
Provides order entry duties and responsibilities of the health unit coordinator. Pre-requisites: NAA 1022. Lecture: 1 credit (15 contact hours).

Components: Lecture
NGT Natural Gas Technology

NGT 1001(0.25) Course ID:006446
Basic Procedures/Processes
Presents the major components of a natural gas system from well head to burner. Presents actions that each component has on the gas stream in the context of the total system. Reviews key terms and definitions applied to conditions common to the utilization of natural gas. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NGT 1002(0.25) Course ID:006447
Basic Properties of Fuel Gases
Presents advanced procedures for extracting natural gas from the earth and for transporting and regulating natural gas with an emphasis on the physical and chemical properties of natural fuel gases. Lecture: 0.25 credits (7.5 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1003(0.75) Course ID:006448
Adjusting Gas Burners
Presents the science of gas burner design, factors affecting the proper combustion of fuel gas, and techniques used to measure gas input rates, gas flow, and pressure. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1004(0.75) Course ID:006449
Regulating Natural Gas
Presents factors related to measurement of natural gas in a distribution system, pressure regulation, accurate measurement of natural gas, and irregularities in meter installations. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1005(0.5) Course ID:006450
Gas Distribution Calculations
Presents methods for calculating area and volume measurements, gas flow measurements and heating values, venting and ventilation requirements for proper burning of natural gas, and comparing fuel costs. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1008(0.5) Course ID:006451
Records & Compliance Reports
Focuses on U.S. Department of Transportation reporting requirements, reading maps of natural gas systems, and preparing field sketches. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1101(1.25) Course ID:006452
Controlling/Preventing Fires
Introduces factors related to the fire extinguishing process, ways to prevent gas fires, and ways to extinguish natural gas fires. Lecture: 0.25 credits (3.75 contact hours); Lab: 1.0 credits (30 Contact hours).
Components: Laboratory, Lecture

NGT 1102(0.75) Course ID:006461
Safe Working Environment
Emphasizes work safety practices, proper use of equipment for escaping gas, and drug testing and rehabilitation programs. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1103(0.5) 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) 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. Lecture/Laboratory: varies.
Components: Laboratory, Lecture

NGT 1401(0.5) Excavating
Focuses on the Occupational Safety and Health Administration (OSHA) requirements for earth excavation, protection systems, and tables and specifications for designing protective systems. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1401(2.1.25) Operating Equipment Safety
Presents techniques of tractor/loader/backhoe operation while emphasizing safety precautions, maintenance and inspection, and controlling hazardous energy. Lecture: 0.25 credits (7.5 contact hours); Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture

NGT 1403(0.75) 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) Communicating Potential Hazard
Examines health related chemical and explosive hazards while emphasizing identification of hazard information from labels and material safety data sheets and methods used to work safely with toxic chemicals and hazardous materials. Lecture: .25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1501(0.5) 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 (7.50 contact hours).
Components: Lecture

NGT 1502(0.5) Gas Leaks/Odors
Presents basic facts about natural gas and natural gas leaks with emphasis on responding to gas leak and odor calls. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1503(0.5) 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) 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) Patroll/Leakage Surveys
Presents factors basic to patrol of pipeline facilities to include the practice of patrol and leakage surveys.
Components: Laboratory, Lecture

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. Lecture: 3 credits (45 contact hours).
Components: Lecture

NFS 1506(0.25) Detecting Carbon Monoxide
Presents the characteristics of carbon monoxide and the guidelines for investigation of carbon monoxide. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NFS 1601(0.75) Establishing a Gas Service
Presents methods used when establishing a gas service with emphasis on 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

NFS 1602(0.75) Odorant Levels
Presents federal and Kentucky standards for proper odorant levels with emphasis on monitoring odorant levels. Lecture: 0.5 credits (7.5 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NFS 1603(0.75) 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

NFS 1604(0.75) 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

NFS 1701(0.5) 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

NFS 1702(0.5) 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: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NFS 1703(0.75) 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

NFS 1704(1.25) 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 hour (30 contact hours).
Components: Laboratory, Lecture

NFS 1801(0.5) 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

NFS 328 Nutrition and Food Science

NGT 1008(1.5) Course ID:006461
Components: Lecture, Lecture

NGT 1009(1.25) Course ID:006462
Components: Lecture

NGT 1010(0.5) Course ID:006463
Components: Lecture

NGT 1011(0.75) Course ID:006464
Components: Laboratory, Lecture

NGT 1012(0.5) Course ID:006465
Components: Lecture

NGT 1013(0.5) Course ID:006466
Components: Laboratory, Lecture

NGT 1014(0.5) Course ID:006467
Components: Laboratory, Lecture

NGT 1015(0.5) Course ID:006468
Components: Laboratory, Lecture

NGT 1016(0.5) Course ID:006469
Components: Laboratory, Lecture

NGT 1017(0.5) Course ID:006470
Components: Laboratory, Lecture

NGT 1018(0.75) Course ID:006471
Components: Laboratory, Lecture

NGT 1019(0.5) Course ID:006472
Components: Laboratory, Lecture

NGT 1020(0.75) Course ID:006473
Components: Laboratory, Lecture

NGT 1021(0.5) Course ID:006474
Components: Laboratory, Lecture

NGT 1022(0.5) Course ID:006475
Components: Laboratory, Lecture

NGT 1023(0.5) Course ID:006476
Components: Laboratory, Lecture

NGT 1024(0.75) Course ID:006477
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-operated and pilot-operated pressure relief valves; focuses on factors to consider when installing pressure relief valves. Lecture: 0.5 credits (7.5 contact hours).
Components: 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 Welds
Presents duties and responsibilities basic to the practice of inspecting pipe welds; emphasizes the identification and evaluation of weld defects. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2001(0.75)  Course ID:006488
Tapping/Stopping 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
Dewatering
Presents techniques basic to dewatering 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
Pipe Cleaning Operations
Presents procedures for cleaning pipes. 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
Naylon Welding
Presents the characteristics of corrosion, conditions causing corrosion in pipes. 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 an 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 orifice, 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
Pipe Line 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 odors into a natural gas system; emphasizes testing for odorant levels and the proper handling of odors. 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 inspecting, 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; emphasizes 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
NIP 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

NIP 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 pressure. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NIP 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

NIP 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

NIP 2405(0.5) Course ID:008514
Mercury Instruments
Presents the functional operating and maintenance procedures for Mercury instruments, gauges and indexes. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NIP 2406(0.5) Course ID:008515
Multiple Range Pressure Chart
Presents concepts and principles basic to reading multiple range pressure recording charts. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NIP Nursing Integrated Program
NIP 103(2) Course ID:016949
Introduction to Pharmacology
Introduces dosage calculations and medication administration of commonly used medications. Includes an overview of common drug classifications and their effects. Emphasizes nursing responsibility, accountability and application of nursing process to drug therapy across the lifespan. Pre-requisite: Admission to the Integrated Nursing program and proof of adequate status on the Kentucky Nurse Aid Registry. Completion, with a grade of "C" or better, of BIO105, PSY110, ENG101. 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 116. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

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. Examines 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 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 and proof of adequate status on the Kentucky Nurse Aid Registry. Completion, with "C" or better, of BIO 137, PSY 110, ENG101, Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Co-requisite: NIP 103. Pre-requisite or Co-requisite: BIO 139. Lecture: 7 credits (105 contact hours). Clinical: 3.0 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NIP 126(10) Course ID:017177
Nursing Care Across the Lifespan
Focuses on care of clients across the lifespan with stressors to normal lines of defense in hematology, immune, integumentary, fluid and electrolyte/acid/base imbalance, respiratory, musculoskeletal, cardiovascular, gastrointestinal/hepatobiliary, renal/urinary, neurological, sensory and endocrine and reproductive health. Included is nursing care throughout normal pregnancy and the postpartum period, as well as nursing care of the normal newborn and the childbearing family. Integrates the concepts of nursing care, context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. Uses the Neuman's Systems Model to provide care for clients by incorporating the core values of clients with psychosocial problems. Integrates knowledge, nursing, hair, and client-centeredness. Examines the client's needs, health promotion, various treatment modalities, and nursing interventions, through clinical experience and theory application. Pre-requisite: Completion with a grade of "C" or better in NIP 103, BIO 139. Student must have Basic Life support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite or Co-requisite: AHS 100. Lecture: 7 credits (105 contact hours). Laboratory: 3 credits (135 contact hours).
Components: Laboratory, Lecture Attributes: Digital Literacy, Technical

NIP 129(11) Course ID:016950
Nursing Care Across the Life Span
Focuses on care of patients across the lifespan with stressors to normal lines of defense in hematology, immune, integumentary, fluid and electrolyte/acid/base imbalance, respiratory, musculoskeletal, cardiovascular, gastrointestinal/hepatobiliary, renal/urinary, neurological/sensory and endocrine and reproductive health. Included is nursing care throughout pregnancy and the postpartum period, as well as nursing care of the normal newborn and the childbearing family. 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's Systems Model to provide care for patients by incorporating the core values of caring, diversity, excellence, integrity, ethics, holism, and patient-centeredness. Examines the patient's needs, health promotion, various treatment modalities, and nursing interventions, through clinical experience and theory application. Pre-requisite: Completion with a grade of "C" or better in NIP 103, Lecture: 7.5 credits (112.5 contact hours). Laboratory: 3.5 credits (157.5 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Technical

NIP 140(6) Course ID:005435
Practical Nursing Role Transition
Prepares students to assume the role of graduate practical nurse. Promotes clinical judgment, delegation and collaboration in the provision of safe, ethical, holistic patient centered care. Explores healthcare management systems and employment seeking skills as students begin to develop a professional identity. Includes a clinical practicum in a health care facility utilizing the nursing process and evidence-based information in delivering clinically competent care. Pre-requisite: Completion with a grade of "C" or better in NIP126. 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: Digital Literacy, Course Also Offered in Modules, Technical

NIP 212(10) Course ID:016117
Advanced Medical Surgical Nursing
Focuses on 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. Utilizes 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, immune system, hematological system, cardiovascular system, respiratory system, endocrine system, gastrointestinal system, reproductive system, renal system, nervous system, and musculoskeletal system across the lifespan. Pre-requisite: Completion with grade of "C" or better in NIP 129 and successful completion of a Practical Nursing program curriculum and proof of active unencumbered Kentucky or Compact State 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 Co-requisite: Quantitative Reasoning to meet the AA or AS requirement. Lecture: 7 credits (105 contact hours). Clinical: 3 credits (135 contact hours).
Components: Clinical, Lecture Attributes: Digital Literacy, Technical

NIP 213(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 health care 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 provisions 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 health care settings for students to gain specialty 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. Pre-requisite: Completion with a grade of "C" or better in NIP 212 and Quantitative Reasoning to meet the AA or AS requirement. 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: Heritage/Humanities. Lecture: 4.0 credits (60 contact hours). Lab/Clinical: 3 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Digital Literacy, Course Also Offered in Modules, Technical
NIP 220(2) Course ID:016095
Advanced Cardiac & Emergent Care
Focuses on administration of care for acute cardiovascular emergencies including cardiac arrest, acute myocardial infarction, and stroke. Prepares students to participate in emergency care of patients highlighting the importance of team dynamics and communication, systems of care, and immediate post-cardiac-arrest care. Educates students on airway management and related pharmacology. Students demonstrating essential knowledge and skills, obtaining 85% or greater on the written exam, and successfully completing the megacode will receive an American Heart Association ACLS provider card. Pre-requisite: Completion with grade of “C” or better in NIP 211 and MAT 150. Students must have a current CPR certification. Co-requisite: NIP 215. Lecture: 0.5 credits (7.5 contact hours). Lab: 1.5 credits (67.5 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

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. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: ([BIO 135 or BIO 139], if prerequisite, a grade of “C” or greater must be achieved) OR Consent of PN Coordinator. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

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; rest and sleep; body mechanics and introductory content on the surgical experience. Emphasizes practical nursing and the roles and responsibilities of members of the health care team. Emphasizes practical nursing and the nursing process in the context of Maslow’s hierarchy of needs as related to client daily living across the life span. Covers fundamental nursing skills including therapeutic communication techniques; nursing assessment; nursing process and care planning; charting; legal and ethical parameters of health care; rest and sleep; body mechanics and introductory content on the surgical experience. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND ([NAA 100 or equivalent]) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. [ENG 101 and MAT 110 and (AHS 115 or CLA 131) with a minimum “C” grade. Pre-requisite or Co-requisite: BIO 139, if prerequisite, a grade of “C” or greater must be achieved. Lecture: 4 credit hours (60 contact hours), Lab/Clinical: 2 credit hours (90 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NPN 108(3) Course ID:005628
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. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND ([NAA 100 or equivalent]) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. [ENG 101 and MT 110 and (AHS 115 or CLA 131) with a minimum “C” grade. Pre-requisite or Co-requisite: BIO 139, if prerequisite, a grade of “C” or greater must be achieved. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (45 contact hours). Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 110(2) Course ID:004023
Pharmacology I
Introduces techniques used to administer medications. Includes dosages, diagnostic studies, related medical therapies, and legal responsibilities. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND ([NAA 100 or equivalent]) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [([BIO 135 or BIO 139], if prerequisite, a grade of “C” or greater must be achieved) OR Consent of PN Coordinator. Lecture: 1.0 credit (15 contact hours), Lab/Clinical: 1.0 credit (45:1 ratio/45 contact hours). Components: Laboratory, Lecture
Attributes: Technical

NPN 111(3) Course ID:005728
Pharmacology
Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND ([NAA 100 or equivalent]) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND ([NAA 100 or equivalent]) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: ([BIO 135 or BIO 139], if prerequisite, a grade of “C” or greater must be achieved. Lecture: 1.0 credit (15 contact hours), Lab/Clinical: 1.0 credit (45:1 ratio/45 contact hours). Components: Laboratory, Lecture
Attributes: Technical

NPN 125(3) Course ID:004025
Mental Health
Applies nursing process to clients experiencing common mental health problems with emphasis on assisting clients to cope with psychological problems throughout the life span i.e., chemical dependency, violence and other stress and disruptive problems related to mental health. Pre-requisite: Pathway 1: ([NPN 100 and NPN 105 and NPN 110] and (BIO 135 or BIO 139)) or Consent of PN Coordinator. Minimum “C” grade. Pre-requisite or Co-requisite: Pathway 2: ([NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 120 or AHS 115 or OST 103 or CLA 131)]. If prerequisite, a grade of “C” or greater must be achieved.) Pathway 3: ([NPN 106 and NPN 108 and BIO 139]). If prerequisite, a grade of “C” or greater must be achieved. Lecture: 2.0 credits (30 contact hours). Lab/ Clinical: 1.0 credit (45 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 130(3) Course ID:004026
Pharmacology II
Identify common drugs by classification and effects with emphasis on responsibility, accountability, and application of the nursing process to drug therapy. Pre-requisite: ([NPN 100 and NPN 105 and NPN 110] and (BIO 135 or BIO 139)) or Consent of PN Coordinator. Minimum “C” grade. Lab/Clinical: 1.0 credit (45 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Technical

NPN 135(6) Course ID:004027
Introduction to Health Deviation
Applies the nursing process for selected child/adult clients experiencing common health deviations interfering with activities of daily living; emphasis is on the nurse as the provider of care. Pre-requisite: Pathway 1: ([NPN 106 and NPN 108 and BIO 139]) and (AHS 120 or AHS 115 or OST 103). Minimum “C” grade. Pathway 2: ([NPN 101 and NPN 111] and (BIO 135 or BIO 139) and (AHS 115 or AHS 120 or CLA 131 or OST 103). Minimum “C” grade. Lecture: 3.0 credits (45 contact hours), Lab/Clinical: 3.0 credit (45:1 ratio/135 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 140(3) Course ID:005629
Nursing Care I
Applies nursing process to selected child/adult clients experiencing common health deviations related to interferences with activities of daily living and/or interruption of body structure and function related to surgical interference. Pre-requisite: ([NPN 106 and NPN 108 and BIO 139]), Minimum “C” grade. Pre-requisite or Co-requisite: ([NPN 125 and NPN 201]). If prerequisite, a grade of “C” or greater must be achieved. Lecture: 2.0 credits (30 contact hours), Lab/Clinical: 3.0 credit (45:1 ratio/135 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules
NPN 201(3)  
Course ID: 004024  
Child Bearing Family  
Applies nursing process to childbearing families with focus on health promotion and common health alterations in the reproductive process. Pre-requisite: Pathway 1-NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and or Consent of PN Coordinator. Minimum “C” grade. Pathway 2-(NPN 101 and NPN 111) and (BIO 135 or BIO 139) Minimum “C” grade. Pathway 3-(NPN 106 and NPN 108 and BIO 139) Minimum “C” grade. Pre-requisite Or Co-requisite: Pathway 2-NPN 202 and Medical Terminology. If prerequisite, a grade of “C” or greater must be achieved. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).

Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical

NPN 202(6)  
Course ID: 005729  
Med-Surg I Alterations  
Applies nursing process to selected child/adult clients experiencing common health deviations related to metabolic dysfunctions, fluid and electrolyte imbalances, cardiovascular dysfunctions, and cellular deviations that interfere with activities of daily living with emphasis on the nurse as the provider of care. Pre-requisite: (NPN 101 and NPN 111) and BIO 135 or BIO 139) and (AHS 120 or CLA 131 or MIT 103) Minimum “C” grade. Pre-requisite Or Co-requisite: NPN 135. If prerequisite, a grade of “C” or greater must be achieved. Lecture: 6 credits (90 contact hours). Lab/Clinical: 2.0 credits (90 contact hours)

Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical

NPN 205(5)  
Course ID: 004029  
Med Surg II  
Applies the nursing process to child/adult clients experiencing more complex health alterations; the focus is on multi-system failure, fluid and electrolytes, neurological problems, and cellular deviation. Pre-requisite: NPN 200. All courses must be achieved with a grade of “C” or higher. Lecture: 3.0 credits (45 contact hours); Lab/Clinical: 2.0 credits (90 contact hours)/45:1 ratio.

Components: Clinical, Laboratory, Lecture  
Attributes: Technical

NPN 206(6)  
Course ID: 005730  
Med-Surg II Alterations  
Applies nursing process to selected child/adult clients experiencing complex health issues related to multi-system failure, neurological disorders, coordination dysfunctions, and elimination problems that interfere with activities of daily living with an emphasis on the nurse as the provider of care. Pre-requisite: Pathway 1-NPN 100 with a grade of “C” or greater) or Consent of PN Coordinator. Pre-requisite or Co-requisite: NPN 201. If prerequisite, a grade of “C” or greater must be achieved. Lecture: 4.0 credits (60 contact hours). Lab/Clinical: 2.0 credits (90 contact hours).

Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical

NPN 208(10)  
Course ID: 005630  
Nursing Care II  
Applies nursing process to selected child/adult clients experiencing common health deviations related to metabolic dysfunctions, complex cardiovascular dysfunctions, cellular deviations and complex health issues related to multi-system failure, neurological disorders, coordination dysfunctions, and elimination problems that interfere with activities of daily living. Pre-requisite: BIO 137, BIO 139, NPN 106, NPN 108, and NPN 125 with a grade of “C” or greater. Pre-requisite or Co-requisite: NPN 140 and NPN 201 with a grade of “C” or better. Lecture: 6 credits (90 contact hours). Laboratory: 4 credits (180 contact hours)

Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical

NPN 210(4)  
Course ID: 004030  
Clinical Practicum  
Integrates the theoretical concepts learned throughout the program in application of this knowledge during the direct care of clients. Promotes critical thinking and problem solving skills during the nursing role performances of provider of care, manager of care, and member within the discipline. Pre-requisite: Pathway 1- NPN 205. Minimum “C” grade. Pathway 3: NPN 208. Minimum “C” grade. Pre-requisite or Co-requisite: Pathway 2: NPN 206. If prerequisite, a grade of “C” or greater must be achieved. Lecture: 1.0 credit (15 contact hours), Practicum: 3.0 credits (45 contact hours).

Components: Lecture, Practicum  
Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NPN 215(1)  
Course ID: 004125  
Nursing Trends & Issues  

Components: Clinical, Lecture  
Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NRS 101(9)  
Course ID: 004332  
Nursing Care I  
Establishes the foundational knowledge for competency based nursing practice within the context of the contemporary health care delivery system by introducing the nursing process and basic nursing concepts as a framework for organizing care delivery. Introduces the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Applies problem-solving and critical thinking skills in the care of patients across the life span and of diverse cultures with actual or potential alterations in health 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 Nurse Aide Registry or its equivalent; BIO 137 and Quantitative Reasoning Course at AA/AS Level with a grade of “C” or better; or Consent of PN Coordinator. Minimum “C” grade. Pre-requisite Or Co-requisite: NPN 139 with a grade of “C” or better.

Components: Clinical, Lecture  
Attributes: Technical

NRS 102(10)  
Course ID: 004333  
Nursing Care II  
Includes the application of problem-solving and critical thinking skills in the care of patients across the life span and of diverse cultures with actual or potential alterations in health due to common acute and chronic health problems. Provides care of patients during the childbearing cycle focusing on common health alterations in the reproductive process. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN) while higher level skills are introduced. Includes an integrated clinical practicum of direct patient care in a health care facility or health care organization to facilitate the transition from student role to RN practice. Pre-requisite: NRS 203 and BIO 225 with a grade of “C” or better. Pre-requisite Or Co-requisite: BI 157 or a grade of “C” or better. Lecture: 6 credits (90 contact hours) Clinical: 4 credits (180 contact hours)

Components: Clinical, Lecture  
Attributes: Technical

NSG 100(3)  
Course ID: 005269  
Preparation for Nursing  
Explores careers in the nursing profession. Includes career options and educational pathways, goal setting and self-awareness, tools/strategies for success in nursing programs, and trends impacting nursing’s future. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

NSG 101(9)  
Course ID: 000568  
Nursing Practice I  
Focuses on nursing practice within the context of the contemporary health care delivery system by introducing the nursing process and basic nursing concepts as a framework for organizing care delivery. Emphasizes foundational knowledge of nursing practice, skills acquisition, and the basic care of diverse patient populations. Introduces the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Pre-requisite: Admission to the Associate Degree Nursing Program. (BIO 137 and Quantitative Reasoning Course at AA/AS level) with a grade of “C” or better; ENG 101, PSY 110. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Technical
Course ID: 006179
Nursing One
Focuses on nursing practice within the context of the contemporary health care delivery system by introducing the nursing process and basic nursing concepts as a framework for organizing care delivery. Emphasizes foundational knowledge of nursing practice, skills acquisition, and the basic care of diverse patient populations with risk for or actual common chronic health pattern dysfunctions. Introduces the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry. Pre-requisite: Admission to the Associate Degree Nursing program. [BIO 137 (within ten years) and Quantitative Reasoning Course at AA/AS level] with a grade of “C” or better; PSY 110, 75 hour nursing assistant course or its equivalent, Pre-requisite or Co-requisite: BIO 139 with a grade of “C” or better (within 10 years) and ENG 101. Lecture: 5 credits (75 contact hours). Clinical: 4 credits (180 contact hours).

Components: Clinical, Lecture
Attributes: Technical

Course ID: 017319
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. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Emphasizes the concepts of nutrition, metabolism, endocrine, elimination, and integumentary. Upon successful completion of all components of the course, the student will be admitted to NSG 229 and will have earned by advanced standing, 16 credit hours in nursing. Pre-requisite: Admission to the Associate Degree nursing Program and [BIO 137, BIO 139, and Quantitative Reasoning Course at AAAS Level] with a grade of “C” or better, PSY 110, and ENG 101. Co-requisite: NSG 212 with a grade of “C” or better. Lecture: 3.5 credits (52.5 contact hours). Clinical: 0.5 credit (55.5 contact hours).

Components: Clinical, Lecture, Technical

Course ID: 006180
Nursing LPN Bridge Course
Builds upon the LVNL/LPN experiences in application of core components of nursing. Focuses on nursing care for patients with mental health dysfunctions and patients experiencing acute and/or chronic health dysfunctions. Builds upon the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry. Covers selected content and skills from Nursing One and Nursing Two. Includes the role of the Associate Degree Nurse and application of the core competencies of nursing to patients experiencing acute and/or chronic health dysfunctions. Pre-requisite: Licensed practical nurse with the board of nursing, BIO 137, BIO 139, Quantitative Reasoning at an AAAS level or higher (all of these must be “C” or better and within the last 10 years), PSY 110, ENG 101. Pre-requisite or Co-requisite: HST 121. Lecture: 4 credits (60 contact hours), Clinical: 1 credit (45 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

Course ID: 005907
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 core components of nursing practice to patients experiencing actual or potential alterations in health. Strengthens the four competencies of nursing practice to adult patients experiencing actual or potential alterations in health. Focuses on nursing care for patients with mental health dysfunctions and patients experiencing acute and/or chronic health dysfunctions. Builds upon the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry. Covers selected content and skills from Nursing One and Nursing Two. Includes the role of the Associate Degree Nurse and application of the core competencies of nursing to patients experiencing acute and/or chronic health dysfunctions. Pre-requisite: Licensed practical nurse with the board of nursing, BIO 137, BIO 139, Quantitative Reasoning at an AAAS level or higher (all of these must be “C” or better and within the last 10 years), PSY 110, ENG 101. Pre-requisite or Co-requisite: HST 121. Lecture: 4 credits (60 contact hours), Clinical: 1 credit (45 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical
NSG 229(7)  
Course ID:071321  
Medical Surgical Nursing II  
Focuses on the application of the core components of nursing practice to adult patients experiencing actual or the potential for alterations in health. Illustrates the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Emphasizes the concepts of oxygenation, circulation, perfusion, and activity/exercise. Pre-requisite: NSG 219 and NSG 212 with a grade of “C” or higher and ENG 101. Pre-requisite or Co-requisite: NSG 211 and BIO 225 with a grade of “C” or higher. Lecture: 4 credits (60 contact hours). Clinical: 3 credits (135 contact hours).
Components: Clinical, Lecture  
Attributes: Technical

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). Pre-requisite: NSG 220 and NSG 211 and BIO 225 with a grade of “C” or better. Pre-requisite or Co-requisite: NSG 213, NSG 225, and Heritage/Humanities. Lecture: 3.0 credits (45 contact hours) Clinical: 3.0 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture  
Attributes: Technical

NSG 236(9)  
Course ID:006184  
Nursing Three  
Includes application of the core components of nursing to the care of childbearing and child-rearing families experiencing functional and dysfunctional alterations in health. Applies the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry. Pre-requisite: NSG 206 OR NSG 196 with a grade of “C” or better. Pre-requisite or Co-requisite: BIO 225 (within 10 years) with a grade of “C” or better. Lecture: 5 credits (75 contact hours). Clinical: 4 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical

NSG 246(9)  
Course ID:006185  
Nursing Four  
Emphasizes the development of the nurse as a provider of care, manager of care, and member of the nursing profession. Provides for the application of critical thinking skills in the care of diverse patients/families across the lifespan with actual or potential alteration in health due to complex acute and chronic health problems. Includes an integrated practicum with an emphasis on leadership, management, clinical judgment, collaboration, knowledge, skills, and professional values within the legal/ethical framework to facilitate the transition of the student to Registered Nurse practice. Pre-requisite: NSG 236 with a grade of “C” or better. Pre-requisite or Co-requisite: Heritage/Humanities/Foreign Language. Lecture: 5.0 credits (75 contact hours). Laboratory/Clinical: 4.0 credits (180 contact hours, 45:1 ratio).
Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical

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 instructors; courses may be repeated with different topics to a maximum of six credit hours. Lecture: Varies by topic; Laboratory: Varies by topic. Pre-requisite: Consent of instructor.
Components: Laboratory, Lecture  
Attributes: Technical

OST 100(1)  
Course ID:003768  
Office Systems Technology  
Lecture: 3 hrs;  Laboratory: 0.  Pre-requisite: ENG 101 or Permission of instructor and OST 110  
Components: Lecture  
Attributes: Technical

OST 101(3)  
Course ID:004926  
Keyboarding & Intro to Document Formatting  
Develops skill in operating a keyboard and touch. Lab: 1.0 credit (45 contact hours).
Components: Laboratory  
Attributes: Technical

OST 105(3)  
Course ID:003769  
Introduction to Information Systems  
Introduces students to computer concepts and terminology related to operating system, file management and cloud computing. Teaches basic competencies in searching, locating, and evaluating information on the Internet, using email and other online tools, and demonstrating responsible and ethical online and offline behavior.
Components: Lecture  
Attributes: Technical

OST 108(3)  
Course ID:004521  
Editing Skills for Office Professionals  
A hands-on approach to editing business documents. Applies proper placement and structure of business documents. Reviews principles of grammar, punctuation, vocabulary, spelling, word and number usage, and proofreading rules. Lecture: 3 credits (45 contact hours).
Components: Lecture  
Attributes: Technical

OST 110(3)  
Course ID:003770  
Instructor Consent Required  
Word Processing Applications  
Provides experience in word processing including the mastery of touch typing with speed and accuracy using industry standard software. Pre-requisite: RDG 200 and Consent of Instructor (OST 101 equivalent skills). Lecture: 3.0 credits (45 contact hours).
Components: Lecture  
Attributes: Technical

OST 112(3)  
Course ID:004428  
Financial Management  
Designed to teach students fundamental principles and concepts including: financial markets, financial statements, commoditites, interest rates, and taxes. The primary emphasis is short and long term financial planning along with interpretation of financial information. Careers in the financial industry discussed. Lecture: 3 credits (45 contact hours).
Components: Lecture

OST 150(5)  
Course ID:003771  
Transcription and Office Technology  
Produce usable business documents from machine dictation using word processing software, with emphasis on spelling, punctuation, and grammar. Proofreading and editing applications stress the importance of accuracy and quality of document creation and production.
Components: Lecture  
Attributes: Technical

OST 160(3)  
Course ID:003772  
Records and Database Management  
Pre-requisite: OST 105. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  
Attributes: Technical

OST 210(3)  
Course ID:003773  
Advanced Word Processing Applications  
Pre-requisite: OST 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  
Attributes: Technical

OST 215(3)  
Course ID:003774  
Office Procedures  
Studies the practices and procedures of current office concepts with emphasis given to the electronic office including: job application procedures, human relations in the office, business ethics, decision-making skills, travel and meeting arrangements, time and stress management, incoming/outgoing mail processes, and telephone procedures. Pre-requisite Or Co-requisite: OST 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  
Attributes: Technical

OST 220(3)  
Course ID:003775  
Administrative Office Simulations  
Pre-requisite: OST 110 and 240, or consent of instructor.
Components: Lecture  
Attributes: Technical

OST 225(3)  
Course ID:003776  
Introduction to Desktop Publishing  
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: (OST 105 and OST 110) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  
Attributes: Technical

OST 235(3)  
Course ID:003777  
Business Communications Technology  
Pre-requisite: (ENG 101 or OST 108). Lecture: 3.0 credits (45 contact hours).
Components: Lecture  
Attributes: Technical

OST 240(3)  
Course ID:003778  
Advanced Microsoft Applications  
Expands computer skills through the use of spreadsheet, database management, word processing, and presentation software for the integration of information. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  
Attributes: Technical
OST 250(3) Course ID:004514
Advanced Desktop Publishing
Provides advanced techniques in electronic publishing design, layout, composition and paste-up. Pre-requisite: OST 225 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 255(3) Course ID:004425
Introduction to Business Graphics
Provides instruction in the process of image-editing including how to create original artwork, manipulate color, enhance artwork, graphics and retouch photographs and clipart used in desktop publishing programs. Pre-requisite: OST 105 or OST 225 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 272(3) Presentation Graphics
Uses industry standard software to create business presentations, business graphics, transparencies, and slides. Applies editing, formatting, page layout and design, and paste-up techniques for clarity and impact. Pre-requisite: OST 105. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 275(3) Office Management
Management principles and techniques and their applications to the modern business office are included. Emphasis is on information systems and the role of managerial personnel. Lecture: 3 credits. Laboratory: 0 credits.
Components: Lecture
Attributes: Course Also Offered In Modules, Technical

OST 295(1 - 3) Instructor Consent Required
Administrative Office Technology Internship
Provides the opportunity to apply acquired occupational skills in a realistic setting, enhancing the transition from school to work. Requires approval of OST advisor. Pre-requisite: OST 210, OST 215, and OST 240, or consent of instructor. Laboratory: 1.0 - 3.0 credits (45-135 contact hours).
Components: Laboratory
Attributes: Technical

OST 101(1) Course ID:016303
Word Processing Functions
Provides basics of word processing including the information processing cycle, using spell check, proofreading and keypad accuracy using industry standard software. Pre-requisite: RDG 020 or Consent of Instructor (OST 101 equivalent skills). Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 102(1) Course ID:016304
Document Letters Memoranda
Provides experience in word processing for keying letters and memoranda using industry standard software. Pre-requisite: OST 101 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 103(1) Course ID:016305
Document Tables and Reports
Provides experience in word processing for keying tables and reports from reference materials using industry standard software. Pre-requisite: OST 102 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 210(1) Course ID:016306
Advanced Formatting and Tools
Uses advanced formatting features and Word Processing Tools of a current word processing software. Pre-requisite: OST 110. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 2102(1) Course ID:016307
Print and File Management
Uses advanced features of a current word processing software to manage file management, printing, and editing. Pre-requisite: OST 2101 or Consent of Instructor. Lecture 1 credit (15 contact hours).
Components: Lecture

OST 2103(1) Course ID:016308
Advanced Word Processing Tools
Uses advanced features of a current word processing software to format tables, insert graphics and clipart, and forms. Pre-requisite: OST 2102 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 2251(1) Course ID:016309
Desktop Publishing Software
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: (OST 105 and OST 110) or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 2252(1) Course ID:016310
Desktop Publishing Design and Features
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: GST 2251 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 2751(0.5) Course ID:005806
Office Management Principles
Includes introductory management principles and techniques for the modern business office. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

OST 2752(1) Course ID:005807
Managing Human Resources in the Office
Includes management principles and techniques and their application to the management of human resources in the modern business office. Pre-requisite: GST 2751. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 2753(0.5) Course ID:005808
Managing Office Administrative Services
Management principles and techniques for the modern business office as they apply to the development of an information system and the management of physical resources are included. Pre-requisite: GST 2751. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

OST 2754(1) Course ID:005809
Managing Office Administrative Systems
Includes quality management principles and techniques for the administrative systems in a modern business office. Pre-requisite: GST 2751. Lecture: 1 credit. (15 contact hours).
Components: Lecture

OTA 101(3) Course ID:006866
Introduction to Occupational Therapy
Introduces the profession of occupational therapy by examination of history, philosophy, and theoretical foundations. Examines roles of Occupational Therapist (OT) and Occupational Therapy Assistant (OTA) with respect to education, credential, employment settings, and ethics. Outlines usage of Occupational Therapy Practice Framework, medical terminology, group dynamics, and communication skills. Pre-requisite: Completion of ENG 101 with a “C” or better and consent of instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Technical

OTA 111(2) Course ID:006869
Applied Anatomy and Kinesiology
Studies the musculoskeletal and nervous systems of the human body in relationship to movement and function. Emphasizes the upper extremity and shoulder girdle. Focuses on innervation of muscles, muscle grouping for function, and common problems seen when these systems are affected by disease/injury. Introduces the analysis of movement in specific life tasks. Uses the goniometer for joint measurement, manual muscle testing for strength, and promotes familiarity with the terms and techniques used in assessing motor function. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

OTA 115(2) Course ID:008881
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 basics of an individual’s occupational performance. Provides explanation and introductory lab practice of the occupational therapy assistant elements. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

OTA 116(2) Course ID:006882
Media Principles and Procedures I
Develops skills in planning, implementing and evaluating occupational therapy for individuals experiencing deficits in occupational performance through the analysis of human occupation and subsequent methods of remediating, compensating, grading, and/or modifying activities and environments for optimal occupational performance. Develops communication skills necessary for documentation and patient interaction. Focuses on appropriate treatment and need for awareness of ethnic, cultural, and socio-economic factors that impact individuals. Provides opportunities for students to develop skills in activity analysis, functional mobility, therapeutic crafts, and modalities. Pre-requisite: Admission to OTA program and permission of instructor. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

OTA 125(2) Course ID:006883
Assistive Technology and Documentation
Presents various methods of documentation used in occupational therapy settings for evaluation, intervention, justification of payment for equipment, discharge, and other client records, and requirements of third party payers. Explores assistive technology to facilitate knowledge in a broad range of devices, services, strategies, and practices conceived and applied to decrease the problems faced by individuals. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
OTA 126(1) Course ID:006870
Level IA Fieldwork
Provides the opportunity to observe and participate in various settings appropriate to occupational therapy service but not necessarily within a therapy department or under an occupational therapy professional. Provides opportunities to develop entry-level skills in the occupational therapy process with hands-on interaction as appropriate. Encourages development of professional behaviors and effective communication skills. Pre-requisite: Admission to OTA program and permission of instructor. Clinical: 1.0 credit (60 contact hours).
Components: Clinical
Attributes: Technical

OTA 138(4) Course ID:006871
Physical Dysfunction
Includes study of physical conditions commonly seen by Occupational Therapy, including diagnoses, instruction on treatment, and application of treatment. Introduces practice models to guide treatment applications, including procedures for multiple conditions in physical dysfunction. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 4.0 credits (120 contact hours).
Components: Lecture
Attributes: Technical

OTA 146(3) Course ID:006872
Occupational Therapy in Mental Health
Presents typical and dysfunctional behavior using the occupational therapy process as it pertains to mental health practice settings. Explores alternative methods and settings for mental health practice. Covers training and practice in interpersonal skills necessary for effective communication with clients, families, significant others, other health care professionals, and the public. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

OTA 206(2) Course ID:006873
Community Practice
Explores the current and emerging practice areas of occupational therapy in the immediate and future needs. Focuses on occupation-based practice, holistic, wellness, and prevention models applied throughout the lifespan. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contacts).
Components: Lecture
Attributes: Technical

OTA 216(2) Course ID:006864
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
Attributes: Technical

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, modalities and neurologic 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
Attributes: Technical

OTA 226(1) Course ID:006874
Level IB Fieldwork
Provides the opportunity to observe and participate in various settings appropriate to occupational therapy service but not necessarily within a therapy department or under an occupational therapy professional. Provides opportunities to develop intermediate skills in the occupational therapy process. Provides opportunities for students to advance therapeutic skills and to generalize skills and knowledge from the classroom to the practice setting. Focuses on functional behaviors and communication skills established in previous occupational therapy classes. Pre-requisite: Admission to OTA program and permission of instructor. Clinical: 1.0 credit (60 contact hours).
Components: Clinical
Attributes: Technical

OTA 236(2) Course ID:006875
Professional Transitions and Management
Explores professional issues related to the transition from student to practitioner, the relationships the occupational therapy assistant (OTA) has with other health care professionals, identification of licensure and certification requirements, professional memberships, job search strategies, methods of reimbursement, and formulation of professional resources to become a successful entry level therapist. Pre-requisite: Admission to OTA program and permission of instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

OTA 246(3) Course ID:006876
Pediatric Issues in Occupational Therapy
Examines occupational therapy in the pediatric population. Investigates how physical, emotional, and cognitive processes begin, change, and develop from birth through adolescence. Addresses concepts of occupation in pediatrics. Encourages students to view treatments holistically while learning normal developmental milestones and various disabilities. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

OTA 256(2) Course ID:006877
Elder Issues in Occupational Therapy
Examines the concerns for occupational therapy in the aging population. Examines how physical, emotional and cognitive processes change through adulthood. Discusses the concepts of occupational therapy throughout the life span employing a holistic approach to intervention. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

OTA 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/placement of treatment programs with clients with a variety of diagnoses and ages. Strengths 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
Attributes: Technical

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/placement of treatment programs with clients with a variety of diagnoses and ages. Strengthens complex skills, including critical thinking, required for entry-level of practice through the final of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to the Occupational Therapy Assistant Program or permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum
Attributes: Technical

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 266 OR OTA 276. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PGL 111(3) Course ID:007051
Legal Systems and Terminology
Provides an overview of major principles and functions of the state and federal legal systems, introduces various legal fields for professional opportunities, presents legal vocabulary, gives an overview of different areas of law, and presents ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGL 112(3) Course ID:007052
Legal Research
Introduces the basic sources of law and methods of legal research, including ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 111. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGL 113(3) Course ID:007053
Law Office Management
Provides practical application of daily legal office skills needed in the legal field, professional enrichment presentations, history of the profession, professional ethics through fact analysis, and an overview of law office management. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGL 211(3) Course ID:007054
Family Law
Examines the areas of law pertaining to domestic relations, emphasizing ethics. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
Disqualification, civil and criminal liability, and what it discipline an ethical lapse may trigger, such as sanctions, professional must report misconduct. Explores the types of and rules, along with the essentials of how and why a legal remedies. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PGL 214(3) Course ID:007057
Real Property I
Introduces real property law including ownership, transfer of property, liens and encumbrances, and the various types of deeds. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PGL 221(3) Course ID:007058
Wills and Estates
Introduces the laws of inheritance and estates, basic concepts of estates and wills, probate procedures, and preparation of documents while emphasizing ethics. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PGL 223(3) Course ID:007059
Civil Litigation II
Continues the study of the litigation process from discovery through appeal. Emphasizes collecting and organizing discovery materials and demonstrating knowledge of the limits placed on discovery by the federal and state rules of civil procedure. Includes the trial and appeal phases of litigation, with emphasis on trial preparation and appellate procedure. Pre-requisite: PGL 213. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PGL 224(3) Course ID:007060
Real Property II
Examines legal documents related to real property as recorded in the client’s office, the tax assessor’s office, and the circuit clerk’s office. Includes compiling a title abstract and completing an assignment to prepare a real estate file from transaction through closing and post-closing, implementing ethics. Pre-requisite: PGL 214. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PGL 231(3) Course ID:007061
Torts
Provides instruction in the area of law that deals with civil wrongs and injuries, including intentional wrongs, negligence, and strict liability. Concentrates on the elements of a tort, type of tort, damages, ethics, and remedies. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PGL 233(3) Course ID:007062
Ethics
Provides an overview of the various sources of ethics law and rules, along with the essentials of how and why a legal professional must report misconduct. Explores the types of discipline an ethical lapse may trigger, such as sanctions, disqualification, civil and criminal liability, and what it means to be engaged in the "unauthorized practice of law." Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PGY 206(3) Course ID:00846
Elementary Physiology
An introductory survey course in basic human physiology. Pre-requisite: One semester of college biology. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (University of Kentucky)

PHA 110(6) Course ID:004159
Pharmacy Procedures and Skills
Introduces the field of pharmacy technology in various pharmacy settings. Includes content on legal requirements and responsibilities of pharmacy technician as they assist the pharmacist. Topics discussed will include professional communication and customer service, Patient Care Process, safety issues, and the basic skills of a pharmacy technician. Students will use a variety of interpersonal skills and self-management skills to produce a final product from a medication order, or prescription, following safe handling and preparation guidelines as set forth by governmental agencies. Co-requisite: PHA 145, PHA 136, PHA 150. Lecture: 3 credits (60 contact hours). Lab: 2 credits (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

PHA 136(3) Course ID:001930
Pharmacology I
Introduce the study of drugs and their effect on the human body. Demonstrate basic knowledge of anatomy, physiology, pharmacology, and medical terminology relevant to the pharmacy technician’s role. Explain the use and side effects of prescription and non-prescription medications and alternative therapies. Co-requisite: PHA 145, PHA 110, PHA 150. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PHA 145(3) Course ID:016998
Pharmaceutical Calculations
Provides review of basic math and introduction of knowledge to perform mathematical calculations essential to the duties of pharmacy technicians in a variety of settings. Promotes critical thinking of using pharmaceutical calculations skills to solve application problems accurately and efficiently. Prepares students and pharmacy technicians to solve calculation problems on the Pharmacy Technician Certification Exam (FTCE) through lecture and lab activities. Pre-requisite: MAT 65 or equivalent. Co-requisite: PHA 136, PHA 110, PHA 150. Lecture: 2 credits (30 contact hours). Lab: 1 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

PHA 150(3) Course ID:017307
Pharmacy Experience 1
Provides entry-level work experience in the pharmacy technician’s role. Explain the organization, communication, record keeping, and therapeutic communication skills. Lecture/ Lab: 6.0 credits (90 contact hours).

Components: Clinical
Attributes: Technical

PHA 205(1) Course ID:017308
Admixture Preparations
Prepares pharmacy technician students to take the Pharmacy Technician Certification Board exam. Review will focus on individual knowledge deficits. Preparation for interviews and career planning. Pre-requisite: PHA 136, PHA 110, PHA 145, PHA 150. Co-requisite: PHA 200, PHA 236, PHA 240. Lab: 1 credit (45 contact hours).

Components: Lecture
Attributes: Technical

PHA 212(3) Course ID:007055
Legal Writing
Includes composition of legal communications, briefs, memoranda, and other legal documents, with an emphasis on ethical considerations. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PHA 224(3) Course ID:007060
Real Property II
Examines legal documents related to real property as recorded in the client’s office, the tax assessor’s office, and the circuit clerk’s office. Includes compiling a title abstract and completing an assignment to prepare a real estate file from transaction through closing and post-closing, implementing ethics. Pre-requisite: PGL 214. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PHA 236(3) Course ID:001936
Instructor Consent Required
Prepares students and pharmacy technicians to take the Pharmacy Technician Certification Board exam. Review will focus on individual knowledge deficits. Preparation for interviews and career planning. Pre-requisite: Consent of Instructor. Clinical: 1.0 - 8.0 credits (60-480 contact hours).

Components: Clinical
Attributes: Technical

PBH 100(6) Course ID:001938
Phlebotomy
Prepares the student as an integral member of the health-care team to collect blood from patients/donors in hospitals, blood banks or clinics for analysis or other medical purposes. Includes standard precautions, record keeping, and therapeutic communication skills. Lecture/ Lab: 6.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

PBH 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. Pre-requisite: CPR Certification, Malpractice Insurance, Hepatitis, Varicella, PPD, Rubella, and Rubella blood work results. Lecture: 3 hrs; Laboratory: 9 hrs.

Components: Laboratory, Lecture
Attributes: Technical
PHB 151(1)  Course ID:004072
Instructor Consent Required
Phlebotomy for the Health Care Worker
Covers fundamental techniques in proper venipuncture and capillary collection. Includes a study of medical ethics, laboratory terminology, anatomy and physiology of the circulatory system, communication and record keeping, specimen processing, laboratory safety, isolation procedures and special collection. Lecture/Lab: 1.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PHB 152(1)  Course ID:004175
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. Pre-requisite Or Co-requisite: PHB 151, PHB 170 or MAI 120. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

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. Pre-requisite: (PHB 151 Phlebotomy for the Healthcare Professional with a grade of "C" or better) OR (PHB 100 Phlebotomy with a grade of "C" or better) OR (PHB 170 Applied Phlebotomy with a grade of "C" or better.) Lecture/Lab: 2.0 - 3.0 credits (120 - 180 contact hours).
Components: Lecture
Attributes: Technical

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, specimen processing for the various laboratory departments, venipuncture complications, and quality assurance. Pre-requisite: Permission of the MLT Program Director/MLT Clinical Coordinator. Co-requisite: PHB 152. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

PHI Philosophy

PHI 100(3)  Course ID:000894
Introduction to Philosophy: Knowledge and Reality
Introduces students to philosophical studies with emphasis on issues of knowing, reality, and meaning related to human existence. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 110(3)  Course ID:002202
Medical Ethics
Introduces examination and application of major ethical theories to specific moral questions related to health care. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 120(3)  Course ID:000356
Introductory Logic
Covers argumentation, syllogistic and sentential logic. Focuses on the use of formal methods in the construction and criticism of actual arguments, the aim being to inculcate standards of good reasoning, e.g., clarity, consistency, and validity. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 130(3)  Course ID:000354
Ethics
Introduces students to a critical examination of philosophical principles related to moral action and political values. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 140(3)  Course ID:005139
The Ethics of War and Peace
Ethical reasoning and application of ethical theories to moral issues connected to war and peace. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 150(3)  Course ID:000359
Business Ethics
Presents ethical theories and techniques of moral reasoning used to analyze moral issues in business. Applies ethics and reasoning to current issues of management, employees, government, public safety, and the environment. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 160(3)  Course ID:015595
Philosophy Through Pop Culture
Surveys major philosophical themes, such as value, morality, evil, friendship, beauty, God, reality, and the meaning of life, and applies these themes to an examination of how they are represented in several sources of popular culture, including literature, film, art, music, media, and stage. Pre-requisite: ENG 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 180  Course ID:016765
Animal and Environmental Ethics (3)
Introduces students to issues in philosophy of religion including defining the concept of God, arguments for and against the existence of God, the relation between faith and reason, the nature of religious experience, the problem of evil, and immortality. Pre-requisite: ENG 101. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Other

PHI 200(3)  Course ID:016766
Professional Responsibility
Assess the proper role of ethics within different professional settings, examining different professional codes of ethics and approaches to leadership and professionalism. Examine the nature of the professional's client relationship, recurring moral dilemmas, and the role of professionals in society. Develop a professional portfolio and practical professional skills. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Other

PHI 250(3)  Course ID:016844
Symbolic Logic
Introduces students to the methods of formal deductive logic with emphasis upon applications to mathematics, computer science, and/or legal reasoning. Covers the language and rules of formal logic as well as techniques of formal proof. Pre-requisite: Math placement scores at or above benchmark OR KCTCS math placement exam recommendation OR Successful completion of transitional math coursework. OR Concurrent enrollment in PHI250-S. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

PHI 250(S - 1 - 2)  Course ID:017296
Co-Requisite Remediation for Symbolic Logic
Components: Lecture
Attributes: Other

PHI 260(3)  Course ID:000688
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

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

PHI 298(3)  Course ID:006969
Special Topics in Philosophy: Topic
Examines special topics in philosophy. Includes, but not limited to, individual philosophers, movements, writings, traditions, and selected eras. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

PHI 1501(1)  Course ID:016636
Theories in Business Ethics
Provides an introduction to ethical reasoning and techniques of moral reasoning used to analyze moral issues in business. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

PHI 1502(1)  Course ID:016637
Applying Business Ethics
Applies ethics and reasoning to current issues of management. Pre-requisite: PHI 1501. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

PHI 1503(1)  Course ID:016638
Defending Business Ethics
Examines current theories of corporate responsibility. Pre-requisite: PHI 1502. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

PHS UTC 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. Co-requisite: MAT 126. Lecture: 6 credits (150 contact hours).
Components: Lecture
Attributes: Other
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. Pre-requisite: MAT 116 or MAT 126. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PHY 151(3) Course ID:000840
Introductory Physics I
Focuses on the conceptual principles of mechanics of solids, liquids, gases, heat, and sound using some algebra. Credit is not given to students who already have credit for PHY 201 or PHY 231. Companion lecture to PHY 161 laboratory. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

PHY 152(3) Course ID:000402
Introductory Physics II
Focuses on the conceptual principles of electricity, magnetism, optics, atomic, and nuclear physics using some algebra. Credit is not given to students who already have credit for PHY 203 or PHY 232. Companion lecture to PHY 162 laboratory. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

PHY 153(3) Course ID:000436
Physics and Astronomy for Elementary Teachers
Addresses basic concepts of astronomy and physics appropriate for elementary teachers and is taught with an emphasis on inquiry-based, laboratory activities. Topics include the basics of the motion of objects, astronomy by sight, electrical circuits, magnetism and the behavior of light. Companion course to GLY 160. Pre-requisite: GLY 160. Lecture: 1 credit hour (15 contact hours). Lab: 2 credit hours (75 contact hours).
Components: Laboratory, Lecture
Attributes: SN - Science, LN - Science Laboratory

PHY 161(1) Course ID:000471
Introductory Physics I Laboratory
Investigates concepts introduced in PHY 151 through experiments in classical mechanics and thermal physics. Pre-requisite or concurrent: PHY 151. Lab: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory, SN - Science

PHY 162(1) Course ID:000475
Introductory Physics II Laboratory
Investigates concepts introduced in PHY 152 through experiments in electricity, magnetism, light, atoms, and nuclei. Pre-requisite or concurrent: PHY 152. Laboratory: 1 credit (15 contact hours). Lab: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 171(4) Course ID:000156
Applied Physics
Surveys mechanics, heat, sound, electricity, magnetism, light, and modern physics as applied to practical systems. Pre-requisite: (MAT 085 or MAT 116 or greater) or Equivalent math placement score or consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

PHY 172(2) Course ID:0004817
Physics for Health Sciences
Introduces the basic concepts of motion, forces, work, energy, power and waves through experimentation, as applied in electricity and magnetism, optics, atomic, and nuclear physics. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lab: 2 credit hours (60 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 201(4) Course ID:000911
College Physics I
Focuses on the mechanics of matter as governed by Newton's Laws; by the conservation laws of energy, momentum, and angular momentum; and thermal processes using algebra and basic trigonometry. Companion lecture to PHY 202 laboratory. Credit is not given to students who have already completed PHY 231. Pre-requisite: (MAT 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: SN - Science

PHY 202(1) Course ID:000627
College Physics I Laboratory
Enhances concepts introduced in PHY 201 through experiments in classical mechanics and thermal physics. Pre-requisite Or Co-requisite: PHY201 or equivalent. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 203(4) Course ID:000524
College Physics II
Focuses on electromagnetic phenomena, circuits, optics and an introduction to modern physics using algebra and basic trigonometry. Companion lecture to PHY 204 laboratory. Credit is not given to students who have already completed PHY 232. Pre-requisite: PHY 201 or equivalent. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).
Components: Discussion, Lecture
Attributes: SN - Science

PHY 204(1) Course ID:000192
College Physics II Laboratory
Enhances concepts introduced in PHY 203 through experiments in electricity, magnetism, and optics. Pre-requisite Or Co-requisite: PHY203 or equivalent. Laboratory: 1.0 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 211(0.5) Course ID:000482
General University Physics I
Surveys selected topics in applied physics. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/ Lab: 0.5 credit (9.37 contact hours).
Components: Lecture

PHY 212(0.5) Course ID:0006109
Motion & Newton's Laws
Surveys selected topics in velocity, acceleration, and force. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/ Lab: 0.5 credit (9.37 contact hours).
Components: Lecture

PHY 213(0.5) Course ID:000611
Work, Energy, Power, and Momentum
Surveys selected topics in work, energy, power, and momentum. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.37 contact hours).
Components: Lecture

PHY 214(0.5) Course ID:0006112
Thermodynamics
Surveys selected topics in thermodynamics. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.37 contact hours).
Components: Lecture

PHY 215(0.5) Course ID:0006113
Electricity and Magnetism
Surveys selected topics in electricity and magnetism. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/ Lab: 0.5 credit (9.37 contact hours).
Components: Lecture

PHY 216(0.5) Course ID:0006114
Wave Motion, Sound, and Light
Includes selected topics in wave mechanics, sound, and optics. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).
Components: Lecture

PHY 217(0.5) Course ID:0006115
Modern and Nuclear Physics
Surveys selected topics in atomic, nuclear, and modern physics. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.37 contact hours).
Components: Lecture

PHY 218(0.5) Course ID:0006116
Integrated Physics Concepts
Surveys selected topics in applied physics. Pre-requisite: PHY 211 and PHY 212 and PHY 1713 and PHY 1714 and PHY 1716 and PHY 1717 or Consent of Instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).
Components: Lecture
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor Consent Required</th>
<th>Credits</th>
<th>Contact Hours</th>
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<tr>
<td>PLB 100(3)</td>
<td>Basic Theory of Plumbing</td>
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<td>Plumbing Fixtures</td>
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<td>Plumbing Appliances &amp; Fixtures</td>
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<td>Pumps and Water Heaters</td>
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<td>PLB 260(2)</td>
<td>Service</td>
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<td>PLB 261(2)</td>
<td>Advanced Plumbing Lab</td>
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<td>PLB 262(3)</td>
<td>Backflow Prevention</td>
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<td>PLB 270(3)</td>
<td>License Preparation for Journeyman Exam</td>
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<td>PLB 299(4)</td>
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<td>PLW 100(4)</td>
<td>Introduction to Engineering Design</td>
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<tr>
<td>PLW 125(4)</td>
<td>Principles of Engineering</td>
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Cultural Studies, SB - Social Behavior Science
Components: Lecture

Culture, ethnicity, language, social class, and ideology. Examines and compares the politics of selected states in Africa, Asia, and Latin America analyzing such issues as culture, ethnicity, language, social class, and ideology. Lecture: 3 credits (45 contact hours).

 Attributes: Social Studies, SB - Social Behavior Science

PLW 225(4) Course ID:006699
Civil Engineering and Architecture
The major focus of the Civil Engineering and Architecture Co-Req course is a long-term project that involves the development of a local property site. As students learn about various aspects of civil engineering and architecture, they apply what they learn to the design and development of this property. Pre-req: PLW-100, PLW-125, and PLW-150. Lecture: 4.0 credits (150 contact hours).

 Attributes: Lecture

PLW 250(4) Course ID:006700
Computer Integrated Manufacturing
The purpose of the Computer Integrated Manufacturing course is to expose students to the fundamentals of computerized manufacturing technology. The course includes: Computer Modeling; CNC Equipment; CAM Software; Robotics; and Flexible Manufacturing Systems.

Pre-req: PLW-100, PLW-125, and PLW-150. Lecture/Lab: 4.0 credits (150 contact hours).

 Attributes: Lecture

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).

 Attributes: Laboratory

PSM 111(2) 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-req: Audition. Lab: 1.0 credit (30 contact hours).

 Attributes: 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-req: MUS 174 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).

 Attributes: 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).

 Attributes: Laboratory

PSM 118(3) Course ID:007261
Songwriting II
Introduces and explores the writing process and application of songwriting techniques.

Lab: 3.0 credits (45 contact hours).

 Attributes: Laboratory

PSM 125(3) Course ID:007262
Songwriting III
Introduces the process of songwriting for the contemporary and traditional music repertoire.

Lab: 3.0 credits (45 contact hours).

 Attributes: Laboratory

PSM 128(3) Course ID:007263
Songwriting IV
Introduces songwriting and song production for contemporary and traditional music repertoire.

Lab: 3.0 credits (45 contact hours).

 Attributes: Laboratory

PSM 130(3) Course ID:007264
Songwriting V
Introduces songwriting and song production for contemporary and traditional music repertoire.

Lab: 3.0 credits (45 contact hours).

 Attributes: Laboratory

PSM 131(3) Course ID:007265
Macroeconomic Principles
Provides a broad overview of macroeconomic principles including the interrelationship between the various sectors of the economy.

Lab: 3.0 credits (45 contact hours).

 Attributes: Laboratory

PSM 132(1) Course ID:007266
Microeconomic Principles
Provides a broad overview of microeconomic principles including the interrelationship between the various sectors of the economy.

Lab: 1.0 credit (30 contact hours).

 Attributes: Laboratory

POL 101(3) Course ID:000912
American Government
Examines national government and the political process in the United States, with emphasis on the Constitution, the President, Congress, and the judicial system. Focuses on the nature of American democracy, political challenges, and opportunities.

Lecture: 3.0 credits (45 contact hours).

 Attributes: Lecture

POL 210(3) Course ID:000630
Introduction to European Politics: East and West
Compares the political institutions, policy-making processes, citizen participation and political outcomes in Eastern and Western European states.

Lecture: 3 credits (45 contact hours).

 Attributes: Lecture

POL 212(3) Course ID:002254
Culture and Politics in Developing Nations
Examines and compares the politics of selected states in Africa, Asia, and Latin America analyzing such issues as culture, ethnicity, language, social class, and ideology.

Lecture: 3 credits (45 contact hours).

 Attributes: Lecture

POL 235(3) Course ID:000438
World Politics
Examines the most significant problems of world politics, including the fundamental factors governing international relations, the techniques and instruments of power politics, and the conflicting interests in organizing world peace.

Lecture: 3 credits (45 contact hours).

 Attributes: Lecture

POL 255(3) Course ID:000066
State Government
Examines the institutions, political processes, and policies of state governments, and the relationships of state governments with other levels of government in the United States.

Lecture: 3 credits (45 contact hours).

 Attributes: Lecture

POL 271(3) Course ID:000724
Introduction to Political Behavior
The study of behavior in a political context; the analysis of basic behavioral concepts used in political science such as political roles, group behavior, belief systems, personality, power, and decision-making.

Lecture: 3 credits (45 contact hours).

 Attributes: Lecture

POL 280(3) Course ID:005213
Issues in Public Policy
Examines selected major public issues, focusing on their nature, political ramifications, and alternate methods of managing conflict. Includes discussion of varying policies such as poverty, health care, energy, education, race and ethnic relations, and the environment.

Lecture: 3.0 credits (45 contact hours).

 Attributes: Lecture

POL 299(1-3) Course ID:004276
Special Topics in Political Science
Addresses various topics, issues, and trends in political science. Includes topics that may vary from semester to semester at the discretion of the instructors.

Lecture: 1.0 - 3.0 credits (15 contact hours).

 Attributes: Lecture

PSJ 210(3) Course ID:005071
Jewelry/Metals III
Provides an in-depth investigation into tools, techniques, and materials of the professional jeweler/metalsmith including the application of coloring through enameling and alternative means.

Pre-req: (PSJ 115 and PSJ 117) or Consent of Instructor.

Lab: 3.0 credits (90 contact hours).

 Components: Laboratory

PSJ 211(3) Course ID:005072
Hollowware and Metal Forming
Covers design and technical processes creating functional hollowware. Emphasizes dimensional forming of sheet metal through raising, sinking, planishing and anticlastic forming.

Pre-req: PSJ 115 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

 Components: Laboratory

PSJ 212(2) Course ID:005073
Metallurgy of Precious Metals
Covers properties and characteristics of precious metals and their alloys. Emphasizes the science of metallurgy and its practical application for the professional jeweler/metal smith.

Pre-req: (PSJ 115 and PSJ 116) 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/metal smith.

Pre-req: (PSJ 210 and PSJ 212) or Consent of Instructor.

Lab: 3.0 credits (90 contact hours).

 Components: Laboratory

PSJ 220(2) Course ID:005076
Jewelry/Metals Product Development
Examines and compares the design and development of the business concerns of the professional jeweler/metal smith.

Pre-req: (PSJ 210 and PSJ 212) or Consent of Instructor. Pre-req or Co-req: PSJ 215. Laboratory: 2.0 credits (60 contact hours).

 Components: Laboratory

PSJ 230(6) Course ID:005077
Jewelry/Metals V
Provides a capstone course that focuses on creating a body of work for exhibition and developing a professional portfolio. Pre-req (PSJ 210 and PSJ 212 and PSJ 220) or Consent of Instructor. Lab: 6.0 credits (180 contact hours).

 Components: Laboratory

PMX Power Mechanics/Measurement
PMX 100(3) Course ID:001962
Precision Measurement
This class introduces the student to the basic fundamentals of precision measurement and its application in the industrial setting.

Lecture: 3 credits (45 contact hours).

 Attributes: Lecture

PMX 100(3) Course ID:001962
Precision Measurement
This class introduces the student to the basic fundamentals of precision measurement and its application in the industrial setting.

Lecture: 3 credits (45 contact hours).

 Attributes: Lecture

PMX Power Mechanics/Measurement
PMX 100(3) Course ID:001962
Precision Measurement
This class introduces the student to the basic fundamentals of precision measurement and its application in the industrial setting.

Lecture: 3 credits (45 contact hours).

 Attributes: Lecture

PMX 100(3) Course ID:001962
Precision Measurement
This class introduces the student to the basic fundamentals of precision measurement and its application in the industrial setting.

Lecture: 3 credits (45 contact hours).

 Attributes: Lecture

PMX 100(3) Course ID:001962
Precision Measurement
This class introduces the student to the basic fundamentals of precision measurement and its application in the industrial setting.

Lecture: 3 credits (45 contact hours).

 Attributes: Lecture
PSM 116(2) Course ID:005528
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 117(1) Course ID:007261
Songwriting II
Provides guidance through the process of creating and refining original melodies and lyrics 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. Pre-requisite: PSM 101 or Consent of Instructor. Lecture: 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. Pre-requisite: PSM 105 or Consent of Instructor. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Technical

PSM 128(1) Course ID:005559
Songwriting II
Provides guidance through the process of creating and refining original melodies and lyrics under the direction of a professional songwriter, emphasizing different techniques while overcoming barriers. Pre-requisite: PSM 108 or Consent of Instructor. Lab: 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 recordings. Pre-requisite: PSM 121 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

PSM 235(2) Course ID:005561
Recording III
Provides an in-depth study of computer and Pro Tools software, recording techniques and applications. Pre-requisite: PSM 125 or Consent of Instructor. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical

PSM 238(2) Course ID:005562
Songwriting III
Provides guidance through the process of creating and refining original melodies, lyrics and music under the direction of a professional songwriter, emphasizing writing for specific media and multi-writer collaboration. Pre-requisite: PSM 128 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical

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 recordings to listening, reading the primary text, and reading suggested articles from industry periodicals. 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. Pre-requisite: PSM 235 or Consent of Instructor. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory

PSM 248(2) Course ID:005565
Songwriting IV
Provides guidance through the process of creating an effective demo and marketing original songs under the direction of a professional songwriter, emphasizing the completed demo project. Pre-requisite: PSM 238 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSW 211(3) Course ID:005061
Wood Bending and Veneering
Covers construct and design possibilities through techniques of strip lamination and steam bending to create curved shaped parts in furniture. Includes veneering design and applications. Pre-requisite: (FSW 115 and PSW 116) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

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. Pre-requisite or Co-requisite: Current placement scores for college level reading established by KCTCS or completion of, or concurrent enrollment in, transitional reading course(s). Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: SB - Social Behavior Science, Course Also Offered in Modules

PSY 180(3) Course ID:000151
Human Relations
Explores the sociological and psychological forces that affect interpersonal relationships as individuals work and live together. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of Transitional reading course(s). Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: SB - Social Behavior Science
PSY 185(3) Course ID:000602
Human Potential
Introduces the principles of relating to self and others and focuses upon self-growth. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Other
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. Pre-requisite: PSY 110 and consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Other
PSY 189(1 - 2) Course ID:000606
Directed Undergraduate Research in Psychology
Requires students to design and conduct an elementary research project relevant to the student’s personal or career interests in psychology under the direction of a faculty member. Requires development of a psychology literature review. Research proposal must be approved by instructor. Pre-requisite: PSY 213 and consent of instructor (If PSY 215 is changed to PSY 213 Research Methods) Laboratory: 1.0 - 2.0 credits (30-60 contact hours).
Components: Laboratory Attributes: Other
PSY 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. Pre-requisite: 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: Integrated Laboratory, Integrated Lecture Attributes: Other
PSY 213(4) Course ID:002255
Research Methods
Applies scientific methods to psychological research. Provides practical experience in designing and executing a research project using observational, survey, and/or true experimental design methodologies. Requires application of descriptive and inferential statistics and written report of research project results. Pre-requisite: PSY 110. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture Attributes: Other
PSY 223(3) Course ID:000488
Developmental Psychology
Examines physical, cognitive, emotional, and social development throughout the lifespan from conception to death. Reviews concepts, principles, and theories of developmental psychology. Explores influences upon psychological development such as heredity, culture, ethnicity, socioeconomic status, and gender. Pre-requisite: PSY 100 or PSY 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: SB - Social Behavior Science, Course Also Offered in Modules
PSY 230(3) Course ID:000387
Psychosocial Aspects of Death and Dying
Examines the biophysiological, psychological, sociological, and cultural aspects of death and dying in the evolving global world. Explores variations in the behaviors and attitudes associated with death, dying, and bereavement, with particular attention to the contexts (e.g., cultural, familial, historical, life span developmental) in which these variations occur. Pre-requisite: PSY 110 or SOC 101, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science
PSY 237(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. Pre-requisite: PSY 110 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science
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. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science
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. Pre-requisite: PSY 110 or consent of instructor. Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).
Components: Lecture
Attributes: Other
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. Pre-requisite: PSY 110. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
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. Pre-requisite: PSY 2231. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
PSY 2233(0.6) Course ID:006381
Middle Childhood & Adolescence
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of middle childhood and adolescence. Pre-requisite: PSY 2232. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
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. Pre-requisite: PSY 2233. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
PSY 235(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. Pre-requisite: PSY 2234. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
 Attributes: Course Also Offered in Modules, Technical

PTA 101(5) Course ID:016102
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, research and evidence-based practice, and introductory patient-care skills such as communication, aseptic techniques, body mechanics, safety procedures, wheelchair management, patient transfers, patient positioning and draping, and vital signs, identification and fitting of ambulation aids, basic gait training, patient and consumer education. Pre-requisite: Admission to the PTA Program and completion of BIO 137 with a grade of “C” or better. Co-requisite: PTA 125. Lecture: 2 credits (30 contact hours). Lab: 3 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

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 grade of “C” or better.
Co-requisite: PTA 101, PTA 102, PTA 121, PTA 170. Lecture: 2 credits (30 contact hours).
Components: Lecture

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 grade of “C” or better.
Co-requisite: PTA 101, PTA 102, PTA 121, PTA 170. Lab: 2 credits (30 contact hours).
Components: Lecture

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: Admission to the PTA Program and completion of BIO 137 with a grade of “C” or better.
Co-requisite: PTA 101. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

PTA 150(6) 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: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 & PTA 125 with a grade of “C” or better.] OR [Pathway 2: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a grade of “C” or better]. Co-requisite: [Pathway 1: PTA 160 and PTA 170] OR [Pathway 2: PTA 120, PTA 121, PTA 1501, and PTA 1502]. Lecture: 3.0 credits (45 contact hours). Lab: 3.0 credits (90 contact hours).
Components: Laboratory, Lecture

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, BIO 139, PTA 101 and PTA 125 with a C or better.
Co-requisite: PTA 150 and PTA 170. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

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/concurrent PTA courses and general education coursework. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 & PTA 125 with a C or better.] OR [Pathway 2: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a C or better] Co-requisite: [Pathway 1: PTA 150 and PTA 160] OR [Pathway 2: PTA 120, PTA 121, PTA 1501, and PTA 1502]. Clinical: 1 credit (60 contact hours).
Components: Clinical
Attributes: Technical

PTA 200(3) 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: If yes: list Admission to the PTA Program and completion of: PTA 150 and 160 with a grade of “C” or better; PTA 170 with a grade of “P”; all general education courses required for completion of the Physical Therapist Assistant program with a grade of “C” or better. Co-requisite: PTA 220 and PTA 240. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

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 150, 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. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

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 150, 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 (60 contact hours).
Components: Laboratory
Attributes: Technical
Pre-requisite: Admission to the PTA Program and completion of:
P TA 1501, PTA 1502, PTA 120, and PTA 121 with a grade of "C" or better. Completion of PTA 170 with a grade of P. Co-requisite: PTA 222, PTA 232, PTA 202, PTA 203, and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all co-requisite courses. Lab: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

PTA 234(2) Course ID:016878 Pathology & Rehabilitation of Neurological & Pediatric Conditions
Focuses on etiology, pathology, progression, prevention, data collection, and selected physical therapy interventions for management of patients with disabilities resulting from the following: brain injury, spinal cord injury, and genetic/congenital disorders. Includes balance disorders, normal growth and development, and the rationale and techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a "C" or better. Completion of PTA 170 with a grade of "P". Co-requisite: PTA 222, PTA 232, PTA 202, PTA 203, and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 2 credits (60 contact hours).

Components: Lecture

PTA 240(2) Course ID:004018
Clinical Practicum II
Involves observation and practice of selected physical therapy interventions and data collection with the application of knowledge from previous/concurrent 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-requisites: [Pathway 1: Admission to the PTA Program and completion of: PTA 150 and 160 with a C or better; PTA 170 with a grade of P; all general education courses required for completion of the Physical Therapist Assistant program with a grade of C or better.] OR [Pathway 2: Admission to the PTA Program and completion of: PTA 120, PTA 121, PTA 1501, and PTA 1502 with a grade of C or better; PTA 170 with a grade of P.] Co-requisite: PTA 222, PTA 232, PTA 202, PTA 203, and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Component: Practicum 2 credits (160 contact hours).

Components: Practicum
Attributes: Technical

PTA 250(5) Course ID:004019 Neurological Rehabilitation in Physical Therapy
Focuses on rehabilitation procedures, including assessment devices, for patients of all ages with disabilities resulting from brain injury, spinal cord injury, genetic/ congenital disorders, and other neurodegenerative disorders. Includes normal growth and development and the rationale and 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 232, PTA 202, PTA 203 and PTA 240. Students cannot progress to PTA 240 without a grade of "C" or better in all other co-requisite courses. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PTA 255(1) Course ID:006732 Pathology & Rehabilitation of Special Populations & Conditions Lab
Develops skills in the application of selected physical therapy interventions for patients with the following problems: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric disorders; infectious diseases; oncology; thermal injuries; integumentary disorders; and wounds. Includes therapeutic exercise and wound care. Pre-requisite: PTA 222, PTA 223, PTA 232, PTA 202, and PTA 203 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
Attributes: Technical

PTA 260(2) Course ID:004172 Seminar in Physical Therapy
Pre-requisite: Admission to the PTA Program and completion of: PTA 200 and 220 with a grade of "C" or better and PTA 240 with a grade of "P." OR [Pathway 2: PTA 202, PTA 203, PTA 222, PTA 223, PTA 232, and PTA 233 with a grade of "C" or better. Completion of PTA 240 with a grade of "P"]: Co-requisite: PTA 190 OR [Pathway 1: PTA 250] OR [Pathway 2: PTA 254, PTA 255, and PTA 280. Students cannot progress to PTA 280 without a grade of "C" or better in all co-requisite courses.] Pre-requisite Or Co-requisite: [Pathway 1: PTA 280; if taken as a prerequisite to PTA 280, must earn a C or better for PTA 260.] Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: Technical

PTA 280(5) Course ID:004020 Clinical Practicum III
Includes clinical observation and practice of physical therapy interventions and data collection with the application of knowledge from previous and concurrent PTA courses and general education coursework. By the end of the clinical experience the student will demonstrate an entry level of practice. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of: PTA 200 and 220 with a grade of C or better and PTA 240 with a grade of P.] OR [Pathway 2: PTA 202, PTA 203, PTA 222, PTA 223, PTA 232, and PTA 233 with a grade of C or better. Completion of PTA 240 with a grade of P. Co-requisite: PTA 254, PTA 255, and PTA 260. Students cannot progress to PTA 280 without a grade of C or better in all Co-requisite courses.] Pre-requisite Or Co-requisite: [Pathway 1: PTA 250, PTA 255, and PTA 260. Students cannot progress to PTA 280 without a grade of C or better in all Co-requisite courses.] Pre-requisite Or Co-requisite: [Pathway 1: PTA 254, PTA 255, and PTA 260. Students cannot progress to PTA 280 without a grade of C or better in all Co-requisite courses.] Pre-requisite Or Co-requisite: [Pathway 1: PTA 280, must earn a C or better for PTA 260.] Practicum: 5 credits

Components: Practicum
Attributes: Technical

PTA 1501(3) Course ID:006721 Functional Anatomy & 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. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 and PTA 125 with a grade of C or better] OR [Pathway 2: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better.] Co-requisite: [Pathway 1: PTA 160, PTA 170 & PTA 1502] OR [Pathway 2: PTA 120, PTA 121, PTA 1502 and PTA 170]. Lab: 3 credits (90 contact hours).

Components: Laboratory
QMS 101(3) Course ID: 004464
Introduction to Quality Systems
Students are introduced to fundamental concepts, principles, and practices used to improve quality in organizations. The need for organizational change is reviewed and paradigms of quality are introduced. An overview of areas of change, methods of quality planning, and methods for implementing quality policies are provided. Students will practice problem solving techniques, make decisions based on data, work in teams, troubleshoot, and demonstrate knowledge of implementing continuous improvement processes. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

QMS 202(3) Course ID: 000869
Performance Management
Students are introduced to a systematic, data-oriented approach to managing people for maximizing performance and quality. Data are used to measure and evaluate effectiveness of performance. Organizational and individual behavior will be studied in the context of increasing performance and quality. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

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. Pre-requisite: QMS 101 or Consent of instructor and MA 109 or MT 150. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

QMS 212(3) Course ID: 004284
Project Management
Provides insight into concepts and skills required to design the infrastructure for the successful planning, scheduling, and launching of a project. Promotes skills necessary to improve coordination of organizational resources, create effective teams, operate efficiently in a rapidly changing world, and minimize internal problems of system startups. Teaches techniques to gain organizational acceptance for projects. Pre-requisite: QMS 101 or Consent of instructor. Lecture: 3 Credits (45 contact hours).

Components: Lecture
Attributes: Technical

QMS 240(3) Course ID: 004467
Statistics for Quality I
Introduces methods of organizing information about processes. Examines presentation, description, and analysis of data. Emphasizes handling and interpreting numerical information, including histograms and control charts. Presents and applies concepts of probability to control charts to promote process understanding to improve quality of products and service. Investigates sampling principles. Uses computer generated analyses. Pre-requisite: MA 109 or MT 150. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

QMS 262(4) Course ID: 000694
Design of Experiments
Basic experimental techniques are reviewed. Statistical techniques which parallel methods of SPC are introduced. Analysis of means, analysis of variance, and contrast comparisons are studied to facilitate the understanding of the different experimental design methods. Examples from manufacturing illustrate how to reduce product variability and optimize process factor settings. Computer software is utilized throughout the course. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: QMS 242 or Consent of Instructor.

Components: Laboratory, 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. Pre-requisite: QMS 1011 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. Pre-requisite: 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. Pre-requisite: QMS 1014 or consent of instructor. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

QMS 2011(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. Pre-requisite: QMS 101 or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

QMS 2012(1) Course ID: 006200
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. Pre-requisite: QMS 2011 or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

QMS 2013(1) Course ID: 006201
Analyzing the Health of the Customer Service Relationship
Includes how to measure customer satisfaction, using decision making techniques. Pre-requisite: 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. Pre-requisite: QMS 201 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. Pre-requisite: QMS 202 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. Pre-requisite: QMS 203 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

QMS 2025(0.8) 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. Pre-requisite: QMS 204 or consent of instructor. Lecture: 0.8 credits (9 contact hours).
Components: Lecture

RAE Russian and Eastern Studies

RAE 120(3) Course ID: 005363
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: Cultural Studies, SB - Social Behavior Science

RAE 150(4) Course ID: 004857
Elementary Chinese I
Introduces basic modes of communication in Chinese. 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 cultures of China. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

RAE 151(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 and Mandarin. Emphasizes everyday language. Presents an overview of the cultures of China. Pre-requisite: RAE 150 or consent of instructor. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies
RCP 110(3) Course ID:003786
Cardiopulmonary Anatomy and Physiology
Provides an in-depth analysis of the respiratory and circulatory systems with emphasis on the interaction of systems in gas exchange and acid-base balance as well as the structure and function of the chest cage, mechanics of breathing and control of respiration. Lecture: 3 credits (45 contact hours). Pre-requisite: BIO 137 with a grade of C or better. Co-requisite: BIO 137.
Components: Lecture
Attributes: Technical
RCP 120(4) Course ID:003787
Theory and Principles of Respiratory Care
Presents the principles and techniques of therapeutic procedures used in respiratory care, including an emphasis on medical asepsis, safe handling and administration of medical gases, uses of humidity, aerosol therapy, lung inflation techniques, bronchial hygiene therapy and airway care. Pre-requisite or Co-requisite: (BIO 137 and (MAT 110 or MAT 146 or MAT 150 or equivalent) with a grade of C or better if taken as Pre-requisite). Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
RCP 121(1) Course ID:004832
Respiratory Care Practice I
Emphasizes the health care team and the practice and performance of techniques of basic respiratory care including airway management and bronchial hygiene. Pre-requisite or Co-requisite: RCP 122 with a grade of C or better; Valid Health Care Provider CPR card. Clinical: 1 credit (60 contact hours).
Components: Clinical
Attributes: Technical
RCP 122(4) Course ID:004831
Fundamentals of Respiratory Care
Introduces respiratory care including chest physical assessment, medical gas therapy, humidity and aerosol therapy, bronchial hygiene, airway management, medical asepsis and development of the respiratory care plan. Pre-requisite: [(MAT 110 or MAT 146 or MAT 150) BIO 137 and BIO 139] with a grade of C or better or consent of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
RCP 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. Pre-requisite: (RCP 110 and BIO 137 and (MT 110 or MT 145 or MT 150 or equivalent) with a grade of C or better). Pre-requisite or Co-requisite: RCP 110. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
RCP 130(3) Course ID:003789
Pharmacology
Provides an in-depth study of pharmaceutical 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). Pre-requisite: (RCP 110 and (MT 110 or MT 145 or MT 150) with a grade of C or better). Co-requisite: RCP 110 and (MT 110 or MT 145 or MT 150).
Components: Lecture
Attributes: Technical
RCP 135(1) Course ID:017210
Respiratory Pharmacology
Provides an overview of respiratory pharmacological agents and their use in the clinical practice of a respiratory therapist. Pre-requisite: Admission to the Respiratory Care Program. Lecture: 1 credit hour (15 contact hours).
Components: Lecture
Attributes: Technical
RCP 140(2) Course ID:004835
Cardiopulmonary Assessment
Emphasizes blood gas analysis, pulmonary function studies, electrocardiography and chest radiography. Pre-requisite: [(RCP 110 and RCP 122 and RCP 130) 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
Attributes: Technical
RCP 150(2) Course ID:003790
Clinical Practice I
Addresses advanced concepts in ventilatory support including physiologic effects, indications, monitoring and management of the patient-ventilator system. Pre-requisite: (RCP 165 and RCP 201) with a grade of C or better or consent of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
RCP 195(4) Course ID:004838
Patient-Ventilator System Management
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. Pre-requisite: (RCP 165 and RCP 201) with a grade of C or better. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
RCP 200(3) Course ID:003794
Clinical Practice III
Provides practice in adult mechanical ventilation procedures and airway management in the critical care setting and performance of other respiratory care skills. Pre-requisite: RCP 175 with a grade of C or better. Clinical: 3 credits (180 contact hours).
Components: Clinical
Attributes: Technical
RCP 201(2) Course ID:004836
Respiratory Care Practice III
Provides practice in adult mechanical ventilation procedures and airway management in the critical care setting in addition to continued performance of the basic respiratory care skills. Pre-requisite: [(RCP 140 and RCP 176) with a grade of C or better] or Consent of Instructor. Clinical: 2 credits (120 contact hours).
Components: Clinical
Attributes: Technical
RCP 204(3) Course ID:003795
Emergency & Special Procedures
Addresses students to participate in advanced emergency life support and special procedures. Pre-requisite or Co-requisite: RCP 135 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
Attributes: Technical
RCP 210(3) Course ID:003796
Cardiopulmonary Pathophysiology
Addresses the etiology, diagnosis, clinical manifestations and management of cardiopulmonary disorders as related to respiratory care including the fundamental microbiological principles and their relation to health and disease. Pre-requisite: [(RCP 110 and RCP 201 and RCP 185) with a grade of C or better] or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
RCP 212(3) Course ID:003797
Neonatal/Pediatric Respiratory Care
Provides an in-depth understanding of respiratory care for the neonatal and pediatric patient with an emphasis on pathophysiologic principles, disease processes and management. Pre-requisite: RCP 210 with a grade of C or better. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
RCP 214(3) Course ID:003798
Advanced Diagnostic Procedures
Provides students to assist physician in advanced diagnostic and therapeutic procedures. Pre-requisite: BIO 139 with a grade of C or better. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
RCP 225(3) Course ID:003799
Clinical Practice IV
Provides observation and practice of advanced cardiopulmonary evaluation techniques while improving efficiency in the ventilatory management of patients. Pre-requisite: RCP 200 with a grade of C or better. Clinical: 3 credits (180 contact hours).
Components: Clinical Attributes: Technical
RCP 226(4) Course ID:004841
Respiratory Care Practice IV
Provides observation and practice in advanced cardiopulmonary evaluation techniques while improving efficiency in the ventilatory management of adult patients. Pre-requisite: [(RCP 176 and RCP 185) with a grade of C or better] or Consent of Instructor. Clinical: 4 credits (240 contact hours).
Components: Clinical Attributes: Technical
RCP 228(2) Course ID:003800
Preventive and Long-Term Respiratory Care
Preventives 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. Pre-requisite: [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 Attributes: Technical
RCP 240(3) Course ID:004844
Advanced Cardiopulmonary Evaluation
Addresses cardiopulmonary assessment including hemodynamic monitoring, pulmonary and cardiace exercise/ stress testing, advanced cardiac procedures, blood chemistry and fluid and electrolyte balance. Pre-requisite: [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 Attributes: Technical
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. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Remedial - Reading, Course Also Offered in Modules
RDG 023(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 Attributes: Remedial - Reading
RDG 024(0.75) Course ID:006740
Words and Visual Elements
Expands vocabulary through examining word parts and context clues, and infers tone and purpose through word combinations. Constructs meaning from visual elements to improve comprehension of text. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading
RDG 0301(0.75) Course ID:006741
Critical Reading
Uses active learning, prior knowledge, and metacognitive strategies to quickly enhance comprehension. Uses active learning, prior knowledge, and self-assessment strategies to quickly enhance comprehension of text. Pre-requisite: As determined by KCTCS Placement Policy, or successful completion of RDG 020. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading
RDG 0302(0.75) Course ID:006742
Text Structures and Supports
Analyzes text structures, paragraphs, longer passages, and arguments for central ideas, supporting examples, reasons, and evidence to construct meaning from texts. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 020. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading
RDG 0303(0.75) Course ID:006743
Logic and Evidence
Analyzes text for logical reasoning and valid supports to quickly detect key information in texts. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 020. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading
Methods of estimating value with emphasis given to the estates, condemnations, and listings, and the factors affecting them. Addresses appraising residential real estate for loans, showing, negotiating the sale, developing a five-year goal, and financing, including all types of real estate property management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 120(3) Course ID:000365
Real Estate Marketing
Includes marketing and selling of real estate properties. Emphasizes analyzing properties, 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
Attributes: Technical

REA 121(3) Course ID:000778
Appraising
Addresses appraising residential real estate for loans, estates, condemnation, 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(1) Course ID:004773
Uniform Standards of Professional Appraisal
Provides an understanding and appreciation of the Uniform Standards of Professional Appraisal Practice (USPAP) and how these standards set the minimum foundation on which both the development of an appraisal and the reporting of that appraisal must adhere and develop. Meets the pre-licensing and continuing education requirements of the Kentucky Real Estate Appraisers Board and the Appraisal Institute. 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
Attributes: Technical

REA 230(3) Course ID:000391
Real Estate Law
Examines the laws and regulations pertaining to real estate and related environmental issues. Includes ownership rights, title examination, planning and zoning, contracts of sale, Fair Housing regulations, agency issues, court systems and recent court decisions. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 299(1-3) Course ID:000541
Selected Topics in Real Estate: (Topic)
Includes topics to expand course offerings as new technology and information are developed, and knowledge 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. Pre-requisite: Consent of instructor.

Components: Lecture
Attributes: Remedial - Reading

REL 101(3) Course ID:000916
Introduction to Religious Studies
Introduces students to the study of religion, emphasizing the varieties, differences, and similarities of religions of the world. (Same as ANT 130). Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

REL 121(3) Course ID:000523
Introduction to the New Testament
Introduces New Testament using knowledge of literary forms as well as historical and cultural backgrounds to aid in the interpretation of the religious and philosophical meanings of the text. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

REL 130(3) Course ID:000360
Introduction to Comparative Religion
Introduces students to a comparative analysis of world religions, emphasizing beliefs, rituals, artistic expressions, and cultural and social organization. Includes both Eastern and Western religious traditions. (Same as ANT 130). Lecture: 3 credits (45 contact hours).

Components: Lecture
Course Equivalents: ANT 130
Attributes: Social Studies, AH - Arts and Humanities, SB - Social Behavior Science, Course Also Offered in Modules

REL 135(3) Course ID:007063
Christianity in Cultural Context
Surveys the historical and theological movements in Christianity from the 1st century to the mid-16th century. Emphasis will be placed on the interaction of Christian institutions and religious movements with other prevailing social, cultural, and political institutions within this timeframe. 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
Attributes: Cultural Studies, AH - Arts and Humanities

REL 160(3) Course ID:017028
Religious Expressions of Forgiveness and Justice
Introduces students to a comparative analysis of world religions, emphasizing the nature of forgiveness and justice and how it is conceptualized and understood in sacred texts, beliefs, rituals, artistic expressions, and cultural and social organizations. Includes both Eastern and Western religions. 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

REL 170(3) Course ID:005523
Philosophy of Religion
Introduces students to issues in philosophy of religion including defining the concept of God, arguments for and against the existence of God, the relation between faith and reason, the nature of religious experience, the problem of evil, and immortality. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: PHI 170
Attributes: AH - Arts and Humanities, Other

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. Pre-requisite: 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 100(1) Course ID:004847
College Survival Seminar
This course is designed to introduce new students to college in order to facilitate a successful college experience. Students will discover campus resources and support services available to them. Students will be introduced to career and life planning, study strategies, coping skills (i.e., stress management, interpersonal relationships), team projects, activities aimed at self discovery, and issues that impact college campuses and our global society that are important to the development of the modern college student. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other, Enrichment 1st Year Experience

SDC 101(2) Course ID:004848
Stress Management
Students will review various psychological and physiological approaches to stress with an emphasis on creating an awareness of how to change and manage their responses to stressful situations. Options and appropriate exercises for coping with anxiety will be presented. Topics will include time management, cognitive restructuring, health, wellness and relaxation training. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other, Enrichment Course Other

SDC 104(1) Course ID:006187
Transfer Planning
Increases knowledge, personal awareness, and self-efficacy related to the transfer process after completion of a two year degree. Provides information, decision-making tools, transition skills, and support to navigate the transfer process, and concluding with an individualized transfer plan to ensure successful matriculation to a four-year institution. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

SDC 105(1) Course ID:004849
Career Planning Seminar
Students will become more knowledgeable about themselves and career options. Self-assessments and vocational inventories measuring interests, work values, skills and abilities will be administered to students. Students will learn how to research careers, career alternatives and employment trends. Trends 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
Attributes: Enrichment Career Counseling, Technical

SCI 110(3) Course ID:017183
Science and Society
Introduces contemporary issues in science and its effects on the public sphere. Critically evaluate scientific media as it relates to student's lives and attain a basic understanding behind the philosophy of science. Discuss relevant topics including, but not limited to: Climate Change, Genetically Modified Organisms, Vaccination, Nutrition, Pseudoscience and appropriate Experimental Design. This course is not intended for STEM students. Pre-requisite: College Readiness as indicated by CPE in reading and writing. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: SN - Science

SCI 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-up), and the job market and job search strategies. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Enrichment Career Counseling, Technical

SCI 151(3) Course ID:017302
Facilitating Career Development I
Provides knowledge and skills instruction in helping skills, training group facilitator skills, career development theories and techniques, formal and informal career assessments, ethics, cultural competence, career information, and technological resources for the career services provider. Covers the first half of the Facilitating Career Development curriculum of the National Career Development Association. Pre-requisite: College-level reading and writing skills as determined by the KCTCS Assessment and Placement Policy, or completion of required transitional courses in Reading and English. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SCI 152(3) Course ID:017303
Facilitating Career Development II
Provides knowledge and skills instruction in employability skills and job search coaching for the career services provider, as well as program planning and evaluation, consultation and supervision, promotion and public relations, history and development of the workforce system and career development profession, business services, and providing services to populations with special needs (people with disabilities, justice-involved, school-aged youth). Discusses next steps in professional development: preparation for certification, education pathways, professional associations, and continuing education. Covers the second half of the Facilitating Career Development curriculum of the National Career Development Association. Pre-requisite: SCI 151 with a C or higher grade. Co-requisite: SCI 153 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SCI 153(1) Course ID:017304
Career Facilitator Practicum
Provides supervised workplace learning experiences in career facilitation, in a college/university, school, or community agency setting, applying knowledge and skills gained from the Facilitating Career Development curriculum. Pre-requisite: SCI 151 with a C or higher grade. Co-requisite: SCI 152. Practicum: 1 credit hour (60-90 contact hours).
Components: Practicum
Attributes: Technical

SCI 161(1) Course ID:017375
Life Coach Practicum
Provides applied experience in life coaching, in a college/university, school, community agency, or other relevant setting, or in self-employment as a solopreneur, applying knowledge and skills gained from SDC 160. Students will conduct coaching that meets the current experience requirements of the International Coach Federation (ICF) for the Associate Certified Coach (ACC) credential, and maintain a log of these contacts using the ICF Coaching Log: a minimum of 100 hours of coaching experience with at least eight clients following the start of SDC 160. Two observed coaching sessions with instructor feedback (including at least one written feedback report) are also a part of the course, to ensure continued development of coaching skills. Course includes seven group mentoring hours and three individual mentoring hours focused on the ICF Core Competencies. Pre-requisite: SCI 160 with a C or higher. Lecture 1 credit (90 contact hours).
Components: Lecture
Attributes: Technical
SMT Surveying

SMT 110(3) Principles of Surveying
Provides a study of field and office procedures for measuring distances, elevations, and horizontal and vertical angles. Covers Polaris and solar observations, state plane coordinates, control surveys, and public land surveys. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 130(3) Land Surveying Graphics
Covers graphical communication in surveying and mapping, fundamentals of projection, map projection theory, 3-D viewing, spatial relationships and viewpoints, plans, profiles, cross-sections, sketches for field notes and presentations in technical reports, map accuracy standards, plotting data from field notes and data collection, contour theory, and computations related to survey drafting. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 160(3) 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, profiles, cross-sections, sketches for field notes, and presentation in technical reports. Pre-requisite: SMT 110, or Instructor Consent. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 210(3) 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
Attributes: Technical

SMT 220(3) 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. Co-requisite: SMT 160. Laboratory: 3 credits (90 contact hours).

Components: Lecture
Attributes: Technical

SMT 230(3) 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 plats, 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
Attributes: Technical

SMT 270(3) 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
Attributes: Technical

SMT 280(4) 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
Attributes: Technical
SPA 205(3) Course ID:017336
Spanish for Bilingual Students
This course is the entry level for the 'Spanish for Bilingual Students' track. It will cater to the specific academic and communicative needs of two types of students: those described as 'heritage speakers/learners' and those who are 'advanced non-native speaker of Spanish'. This course is exclusively designed for these students and its purpose is to build on the students' existence competence of the native language and to further develop oral, written, reading, and cultural competence for use in different communicative situations. Pre-requisite: Placement test, oral interview or permission of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

SPA 208(3) Course ID:017337
US Latino Culture and Politics
This course studies U.S. Latino history and culture, with an emphasis on the evolution of the politics of immigration and the use of Spanish in the United States. These broader issues will be studied with the express intent of determining what they mean for us here in Central Kentucky. Pre-requisite: Placement test or permission of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

SPA 210(3) Course ID:005658
Spanish Grammar and Syntax
Introduction to advanced Spanish grammar and syntax development of Spanish vocabulary and writing skills. Concurrent enrollment in SPA 211 is encouraged. Pre-requisite: Spanish 202 or permission of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SPA 215(3) Course ID:017338
Written Spanish for Bilingual Students
This course builds upon the pedagogical basis of SPA 205. It is exclusively designed for bilingual speakers and its purpose is to further refine reading, lexical, and grammatical skills through intensive writing practice in contexts that are meaningful to these speakers. This course will be taught entirely in Spanish. SPA 215 is the equivalent of 210 and 211 and fulfills the pre-major course requirements. Students taking 203 should refrain from taking this course. Pre-requisite: SPA 205 with "B" grade or higher, placement test, oral interview or permission of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

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. Explores the development of the distinction between "high brow" and "lowbrow" culture in race, ethnicity and other subcultures, the role of gender differences in popular culture, and recent theories and debates about the relation of culture, society and their impact on social institutions. Pre-requisite: SOC 110. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

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 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: Other

SPA 201(3) Course ID:000917
Intermediate Spanish I
Focuses on intermediate level speaking, listening, reading, and writing skills with an emphasis on more advanced grammatical structures; emphasizes the language to expand vocabulary; examines current issues, cultural nuances, and dominant Hispanic themes. Pre-requisite: 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. Pre-requisite: SPA 201 or consent of department and placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

SPA 203(3) Course ID:017335
High Intermediate Spanish
The course is designed to advance students' knowledge of Spanish at the intermediate level by fine-tuning the skills of reading, speaking, listening, and writing. The goal of the course will be to focus on useful vocabulary, to practice functional grammar, to further explore cross-cultural analysis, and to develop students' communicative competence in Spanish. This course is designed for students' transition directly from high school Spanish to second-year college Spanish. Pre-requisite: Placement test or permission of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)
SPA 1012(0.8) Course ID:006223
Spanish for School Life
Introduces basic modes of communication to discuss school life and everyday activities; focuses on asking questions and describing people and things; introduces the present tense of estar (to be) and -ar verbs; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Spain. Pre-requisite: SPA 1011. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1013(0.8) Course ID:006224
Spanish for Family and Friends
Features descriptions of family and friends; focuses on using possessive and descriptive adjectives; introduces the present tense of -er and -ir verbs, uses the verbs tener and venir to express needs and state of mind; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Ecuador. Pre-requisites: SPA 1013. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1014(0.8) Course ID:006225
Spanish for Pastime Activities
Presents conversations regarding Pastimes and activities; focuses on the present tense of the verbs ir, select stem-changing and verbs with irregular yo forms, in the context of making plans and describing events; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Mexico. Pre-requisite: SPA 1013. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1015(0.8) Course ID:006226
Spanish for Travel
Presents conversations to discuss and plan a vacation; expands communication to talk about feelings; introduces verbs for to know and practices the present tense of -er and -ir verbs, in the context of making plans and describing events; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Latin America. Pre-requisite: SPA 1014. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1021(0.8) Course ID:006227
Spanish for Shopping
Highlights conversations and vocabulary in the shopping setting; introduces verbs for to know and practices the present tense of -er and -ir verbs, in the context of making plans and describing events; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Spain. Pre-requisite: SPA 1014. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1022(0.8) Course ID:006228
Spanish for Daily Routines
Introduces reflexive verbs and the irregular pretet 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. Pre-requisite: SPA 1021. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1023(0.8) Course ID:006229
Spanish for Restaurant Settings
Features dialog for ordering in a restaurant and describing food, for explaining where you are and for talking about familiar people and places; introduces the pretet 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. Pre-requisite: SPA 1022. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1024(0.8) Course ID:006230
Spanish for Celebrations
Highlights conversations of congratulations and gratitude and discussing different stages of life; presents irregular preterits; discusses pronouns as prepositions; explores the geography, culture, history and political issue of Spanish speaking countries with focus on Chile. Pre-requisite: SPA 1023. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
SPA 1025(0.8) Course ID:006231
Spanish for Health Care
Presents dialog to talk about medical conditions; contrasts the imperfect and preterit past tense; illustrates impersonal constructions with se; explores the geography, culture, history, and political issues of Spanish speaking countries with focus on Costa Rica. Pre-requisite: SPA 1024. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
STA 111(3) Course ID:007218
Sport Statistics
Introduces students to concepts within the sports world where math and statistics skills are applied. Includes analysis of sports formula, processes, and calculations. Applies mathematical models and ranking methods to the sports world. Assumes students will have a general knowledge and interest in sports. Pre-requisite or Co-requisite: MAT 065. Lecture: 3 credits (45 contact hours).
Components: Lecture
STA 151(3) Course ID:017089
Introduction to Applied Statistics
Serves as an entry-level introduction to applied statistics useful for a variety of fields. Covers statistical terminology and the appropriate use of software for the calculation of descriptive statistics, basic probability, correlation and linear regression. Emphasizes understanding the uses and misuse of statistics in the real world. (Same as MAT 151.) (Students may not receive credit for both this course and any of the following: MAT 151, STA 200, STA 210, STA 215.) Pre-requisite: College Readiness in Mathematics. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning
STA 210(3) Course ID:005196
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. Pre-requisite: MAT 146 or MAT 150 or equivalent. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning
STA 210(3) Course ID:007335
Making Sense of Uncertainty: An Introduction to Statistical Reasoning
The goal of this course is to help students develop or refine their statistical literacy skills. Both the informal activity of human inference arising from statistical constructs, as well as the more formal perspectives on statistical inference found in confidence intervals and hypothesis tests are studied. Throughout, the emphasis is on understanding what distinguishes good and bad inferential reasoning in the practical world around us. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OR - Quantitative Reasoning
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. Pre-requisite: MAT 150 or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modulars
STA 251(3) Course ID:017124
Applied Statistics
Serves as the completion course in the statistics pathway. Covers principles of probability, discrete and continuous probability distributions, statistical estimation, hypothesis testing, linear regression, comparisons of populations, goodness of fit, and analysis of variance. Software will be used to aid in statistical computations. (Students may not receive credit for both this course and any of the following: STA 200, STA 210, STA 215, STA 220, STA 291.) Pre-requisite: MAT 151 or STA 151 or MAT 161. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning
STA 296(3) Course ID:016128
Statistical Methods and Motivations
Introduction to principles of statistics with emphasis on conceptual understanding. Students will articulate results of statistical description of sample data (including bivariate), application of probability distributions, confidence interval estimation and hypothesis testing to demonstrate proper contextualized analysis of real-world data. Pre-requisite: MA 113, MA 123, MA 137, or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning
STA 2201(1) Course ID:007406
Descriptive Statistics
Examines statistical description of sample data including frequency distributions, measures of central tendency, and measures of dispersion. Pre-requisite: MAT 150 or equivalent. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
STA 2202(1) Course ID:007407
Probability Distributions
Examines theoretical distributions and statistical estimation. Pre-requisite: STA 2201. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
STA 2203(1) Course ID:007408
Statistical Inference
Examines hypothesis testing and introduces simple linear regression and correlation. Pre-requisite: STA 2202. Lecture: 1.0 credit (15 contact hours).
Components: Laboratory
SUR 100(12) Course ID:002046
Surgical Technology Fundamentals Theory
Provides an overview of the history of surgery and the role of the surgical technologists, including professional responsibilities, developing a professional resume, legal and ethical considerations, interpersonal relationships and communication skills. Incorporates safety, hazards preparation, aseptic technique and duties of the scrubbed role in the surgical technology program. Provides information for the performance and completion of surgical procedures including general surgery, ob/gyn 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 220 or BIO 227 or BIO 118); Co-requisite: SUR 101 and SUR 125. Pre-requisite OR Co-requisite: SUR 130, CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practice course and must remain current throughout the Surgical Technology Program. Lecture: 12 credits (180 contact hours).
Components: Lecture
Attributes: Technical
SUR 101(1) Course ID:002047
Surgical Technology Fundamentals Lab
Provides opportunity for demonstration of skills required to prepare the patient, operating room, basic equipment, and supplies; and to function as a member of an operating room team. Incorporates OSHA safety standards, aseptic technique, and duties of both the scrubbed and circulating technologist during a surgical procedure. If prerequisite, the student must achieve a grade of "C" or greater. Pre-requisite: Minimum "C" grade in SUR 101. CPR (for Healthcare Providers) must be completed prior to the first Surgical Technology skills practicum course and must remain current throughout the Surgical Technology Program. Co-requisite: SUR 100 or SUR 109 and SUR 110. CPR (for Healthcare Providers) must be completed prior to the first Surgical Technology skill practicum course and must remain current throughout the Surgical Technology Program. Laboratory: 1 credit (90 contact hours).

Components: Laboratory
Attributes: Technical

SUR 103(1) Course ID:002048
Surgical Technology Supplemental Lab
Provides opportunity for supplemental practice of skills required to prepare the patient, operating room, basic equipment, and supplies; and to function as a member of an operating room team. Incorporates OSHA safety standards, aseptic technique, and duties of both the scrubbed and circulating technologist during a surgical procedure. All prerequisites must be achieved with a grade of "C" or greater. Pre-requisite: SUR 100 or (SUR 109 or SUR 110). Co-requisite: SUR 101 CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology Program. Lab: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SUR 109(3) Course ID:005375
Introduction to Surgical Technology
Provides a brief overview of the history of surgery and an in-depth introduction of the role and responsibilities of the surgical technologist, an integral health care professional in the delivery of perioperative patient care and surgical services; including professional responsibilities, developing a professional resume, legal and ethical considerations, interpersonal relationships and communication skills. Introduces the basics of biomedical science and identifying information resources. Introduces all-hazards preparation for the surgical technologist, basic principles of aseptic technique, sterilization, surgical scrub, gown and gloving and basic instruments used in surgery along with correlating the impact of microbiology in relationship to the practice of sterile technique and infection control in the operative setting. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

SUR 110(9) Course ID:005470
Surgical Technology Fundamentals
Incorporates safety, aseptic technique and duties of the scrubbed and the circulating surgical technologist during a surgical procedure; Provides in depth information for the successful preparation, performance, and completion of basic surgical procedures; Addresses specialty areas of general surgery, ob/gyn with attendant specialty equipment; Introduces the theory of abdominal incisions, wound closures, and standard precautions in a clinical assignment; Includes biomedical sciences of electricity, physics, and robotics as they pertain to surgical technology. Pre-requisite: Admission to Surgical Technology program, SUR 109, AHS 115 or consent. Co-requisite or Pre-requisite: CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practicum course and must current remain throughout the Surgical Technology Program. Lecture: 9 credits (135 contact hours).

Components: Lecture
Attributes: Technical

SUR 125(2 - 3) Course ID:002049
Surgical Technology Skills Practicum I
Provides experience 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 "C" grade in SUR 101. CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology Program. Co-requisite: SUR 100 or (SUR 109 and 110). CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology Program. Laboratory: 1 credit (90 contact hours).

Components: Clinical
Attributes: Technical

SUR 130(2) Course ID:002050
Principles of Surgical Pharmacology
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 mathematic 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: Admission to Surgical Technology Program and Minimum "C" grade in [SUR 135 or (SUR 137 and BI0 139)] and (AHS 115 or CLA 131 or OST 103) and (AHS 130 or BIO 225 or BIO 227 or BIO 118). Pre-requisite Or Co-requisite: SUR 130. SUR 101 CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology Program. Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: Technical

SUR 200(9) Course ID:002051
Surgical Technology Advanced Theory
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. Minimum grade of "C" in [SUR 100 or (SUR 109 and 110)] and SUR 125 and SUR 130. Co-requisite: SUR 201. Lecture: 9 credits (135 contact hours).

Components: Lecture
Attributes: Technical

SUR 201(6 - 7) Course ID:002052
Surgical Technology Skills Practicum II
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
Attributes: Course Also Offered in Modules, Technical

SUR 275(2) Course ID:002053
Surgical Technology Advanced Practicum
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 OR Co-requisite: Minimum grade of "C" in SUR 200 and SUR 201. Practicum: 2.0 credits (120 contact hours).

Components: Practicum
Attributes: Technical

SUR 280(5) Course ID:004246
Department Consent Required
Surgical Anatomy
Provides accurate information about the structure and function of the human body. Intended for students who are pursuing a career as a Surgical First Assistant. Pre-requisite: Surgical Technologist or C.N.R. Co-requisite: SUR 284 & SUR 295. Lecture: 5.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

SUR 282(3) Course ID:004247
Perioperative Bioscience
Promotes an understanding of microbial physiology which precedes the understanding of disease transmission and/or prevention; Emphasizes standard precautions and infection control. Contains pharmacology section designed to promote understanding of effects of pre, post and operative drugs; Includes anesthesia section designed to promote understanding of general principles/techniques and drugs used by anesthesiologists and effects on the patient; Introduces the student to the following; diagnostic testing such as radiology, laboratory, cardiology, wound healing, nutrition peripherally, fluid and electrolyte balance, and techniques in maintaining homeostasis. Pre-requisite: Program admission and student must be a certified Surgical Technologist or an RN with operating room experience. Student must provide current documentation of certification. Pre-requisite: SUR 280 & SUR 284 & SUR 295. Co-requisite: SUR 296. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SUR 284(3) Course ID:004248
Principles of Surgical Assisting
Introduces the student to the theory involved in surgical assisting; Incorporates anatomy, surgical techniques, aseptic techniques, draping, positioning, suturing, safety, and duties of the surgical team. Pre-requisite: Program admission. Student must be a certified Surgical Technologist or an RN with operating room experience OR consent. Co-requisite: SUR 280 & SUR 285. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

SUR 295(1) Course ID:004250
Surgical First Assistant Clinical
Includes the performance of entry level duties of a surgical assistant in a clinical setting under the supervision of a qualified preceptor. Follows the Commission on Accreditation of Allied Health programs Surgical Assistant Core Curriculum related to the nature of the cases and the duties involved. Pre-requisite: Program admission. Co-requisite: SUR 280 and SUR 284. Clinical: 1 credit hour (45 contact hours).

Components: Clinical
Attributes: Technical

SUR 296(3) Course ID:006666
Surgical First Assistant Practicum
Involves advanced training in the preoperative, operative, and postoperative phases of surgery. Exposes student to a wide variety of surgical procedures. Emphasizes surgical anatomy, along with critical thinking skills, in every surgical procedure under the supervision of a surgeon who is responsible for overseeing the clinical educational experience of the student. Pre-requisite: SUR 280, SUR 284 and SUR 295. Co-requisite: SUR 282. Practicum: 3.0 credits (270 contact hours)

Components: Practicum
Attributes: Technical

SUR 297(1) Course ID:016240
Surgical First Assistant Practicum II
Involves advanced training in the preoperative, operative, and postoperative phases of surgery. Exposes student to a wide variety of surgical procedures. Emphasizes advanced anatomical knowledge that is applied towards the surgical diagnosis, along with critical thinking skills, in every surgical procedure under the supervision of a surgeon who is responsible for overseeing the clinical educational experience of the student. Pre-requisite: SUR 280, SUR 284, SUR 295, SUR 296. Practicum: 1 credit (90 contact hours)

Components: Practicum
Attributes: Technical
### SWK Social Work

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
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<tr>
<td>124(3)</td>
<td>Introduction to Social Services</td>
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<tr>
<td>180(3)</td>
<td>Introduction to Gerontology</td>
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### TA Theatre

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<tr>
<td>1951(1-3)</td>
<td>Instructor Consent Required</td>
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### SUS Sustainability

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<tr>
<td>101(3)</td>
<td>Introduction to Sustainability</td>
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<tr>
<td>102(3)</td>
<td>Sustainable Built Environment</td>
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### SWK Social Work

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<th>Course ID</th>
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<tbody>
<tr>
<td>220(3)</td>
<td>Cultural Diversity in Human Services</td>
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<tr>
<td>222(3)</td>
<td>Development of Social Welfare</td>
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### TEC Technical Communication

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<tr>
<td>200(3)</td>
<td>Technical Communications</td>
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### THA Theatre

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<th>Course Title</th>
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<tbody>
<tr>
<td>101(3)</td>
<td>Introduction to Theatre: Principles and Practice</td>
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<tr>
<td>125(3)</td>
<td>Acting I: Fundamentals of Acting</td>
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<td>Course Code</td>
<td>Title</td>
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<tr>
<td>THA 127(3)</td>
<td>Acting Techniques</td>
<td>Uses movement exercises, sensory work, theatre games and basic stage combat exercises to heighten physical awareness, release personal blocks, and discover the experience of being truthful with fellow actors. Continues with students moving on to individual work to establish physical techniques they will use when working on a production. Provides an exploration of physical and emotional awareness and development of a more creative use of their imaginations. Lecture: 1.0 credit hour (15 contact hours) Lab: 2.0 credit hours (90 contact hours). Pre-requisite: THA 126. Components: Laboratory, Lecture Attributes: Technical</td>
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<tr>
<td>THA 150(3)</td>
<td>Fundamentals of Production</td>
<td>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 Attributes: Technical</td>
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<tr>
<td>THA 190(1)</td>
<td>Instructor Consent Required Production Practicum</td>
<td>Provides study and practice of production techniques through rehearsal and performance. Practicum: 1.0 credit (45 contact hours). Components: Practicum Attributes: Technical</td>
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<tr>
<td>THA 191(1)</td>
<td>Instructor Consent Required Performance Practicum</td>
<td>Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours). Components: Practicum Attributes: Technical</td>
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<tr>
<td>THA 192(1)</td>
<td>Production Practicum</td>
<td>Provides study and practice of production techniques through rehearsal and performance. Practicum: 1.0 credit (45 contact hours). Components: Practicum Attributes: Technical</td>
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<tr>
<td>THA 193(1)</td>
<td>Performance Practicum</td>
<td>Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours). Components: Practicum Attributes: Technical</td>
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<tr>
<td>THA 196(3)</td>
<td>Instructor Consent Required Summer Theatre Workshop</td>
<td>Includes studies in the theory and application of acting, directing and production principles supplemented by written assignments to be determined by the college Theatre program. Admission by audition or selection by director/college staff. Open to apprentice students in a Summer Theatre program. Pre-requisite: Acceptance by audition or selection by director/college staff. Lab: 1.0 - 3.0 credit hours (45 - 125 contact hours). Components: Laboratory Attributes: Technical</td>
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<tr>
<td>THA 200(3)</td>
<td>Introduction to Dramatic Literature</td>
<td>Provides a study of representative dramatic literature from Greek Antiquity to the present. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities</td>
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<tr>
<td>THA 203(3)</td>
<td>Acting for the Camera</td>
<td>Includes a fundamental approach to auditioning and acting for the camera. Pre-requisite: THA 126. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical</td>
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<tr>
<td>THA 226(3)</td>
<td>Acting II: Scene Study (Realism)</td>
<td>Concentrates on several components of the acting process: preliminary study in modern acting theories, Stanislavski to the present; textual analysis, character study and scene work; studio exercises aimed at refining rehearsal skills for the actor. Pre-requisite: THA 126 or Consent of Instructor. Lecture: 2.0 credit hours (30 contact hours) Lab: 1.0 credit hour (15 contact hours). Components: Laboratory, Lecture Attributes: Other</td>
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<tr>
<td>THA 227(3)</td>
<td>Acting III: Scene Study (Styles)</td>
<td>Introduces the actor to a performance style other than realism while continuing to develop the actor’s skills in analysis and rehearsal. Pre-requisite: 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 Attributes: Technical</td>
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<tr>
<td>THA 230(3)</td>
<td>Unarmed Stage Combat</td>
<td>Provides a study of unarmed combat for the stage from both the classic and contemporary approaches to staging violence. Techniques for punches, slaps, kicks, falls, and rolls will be covered. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Other</td>
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<tr>
<td>THA 260(3)</td>
<td>Stagecraft</td>
<td>Provides a study of theory, principles and techniques of scenic design and construction. Includes assignments in practical applications. Lecture: 2.0 credit hours (30 contact hours) Lab: 1.0 credit hour (75 contact hours). Components: Laboratory, Lecture Attributes: Technical</td>
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<tr>
<td>THA 283(3)</td>
<td>American Theatre</td>
<td>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</td>
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<tr>
<td>TLH 200(4.5)</td>
<td>Telehealth Technician Assistant</td>
<td>The course will prepare students for a scope of practice in telehealth patient care using electronic communication from one site to another to provide clinical health care at a distance. The course is designed to overcome barriers of time and distance to deliver healthcare services. Lecture: 2.0 credits (30 contact hours) Laboratory: 1.0 credits (30 contact hours). Clinical: 1.5 hours (67.5 contact hours). Components: Clinical, Laboratory, Lecture Attributes: Technical</td>
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<tr>
<td>TLH 220(2)</td>
<td>Truck Driving</td>
<td>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. Pre-requisite: CDL Permit. Lecture/Lab: 6 credits (150 contact hours). Components: Laboratory, Lecture Attributes: Technical</td>
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</table>
VCA 102(3) Course ID:002108
Fundamentals of Drawing
Introduces basic drawing skills and concepts as it relates to graphic design. Emphasizes 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 Attributes: Technical

VCA 105(3) Course ID:016768
Drawing Concepts
Develops basic drawing skills and illustration concepts as they apply to graphic design. Emphasizes how to create form in space and to draw in proper perspective for reproduction purposes. Includes the use of layout markers to creatively manipulate type forms and produce interesting, attractive type-only designs. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCA 106(3) Course ID:002113
Creative Typographical Design
Explores the use of type as a major element of design to solve visual communication problems. Includes the use of layout markers to creatively manipulate type forms and produce interesting, attractive type-only designs. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCA 108(3) Course ID:002110
Digital Color Theory
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 Attributes: Technical

VCA 120(3) Course ID:002116
Digital Photography I
Introduces the skills and techniques to capture and process digital photographs. Emphasizes basic digital camera operations and lighting techniques. Includes proper techniques to import and organize photographs. Introduces basic Photoshop skills to manipulate and enhance digital photographs. Includes discussions on appropriate resolutions and file formats. Students must receive a letter grade of “C” or better. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCA 131(3) Course ID:016774
Digital Photography II
Explores advanced skills and techniques to capture digital photographs using various camera functions and lenses. Includes proper scanning techniques and file formats. Explores advanced skills in Adobe Photoshop to manipulate photographs for interesting compositions. Introduces RAW shooting and Camera RAW in Photoshop. Explores proper presentation skills for professional photography displays. Students must receive a final grade of ‘C’ or better to advance in all Visual Communication courses. Pre-requisite: VCA 120 and VCC 166. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture Attributes: Technical

VCA 132(3) Course ID:000201
Illustration For Advertising
Develops skills in visualization and illustration techniques as they apply to advertising and graphic design. Emphasizes visual interpretation of narrative textual information (such as a story, poem or magazine article), editorials, advertising, and books. Uses a variety of media from traditional media to digital media to create professional illustrations as elements of advertising. Students must receive a letter grade of “C” or better. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture Attributes: Technical

VCA 151(3) Course ID:005382
Digital Filmmaking I
Provides training in non-studio video production and editing. Includes applied aesthetics and production of dramatic, informational or experimental work on video. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

VCA 152(3) Course ID:005383
Digital Filmmaking II
Provides training in computer-based editing and pre-production planning. Includes applied aesthetics of video editing production of dramatic, informational or experimental work on video. Pre-requisite Or Co-requisite: VCA 160 and VCC 166 with a grade of C or better. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

VCA 160(3) Course ID:000203
Commercial Photography I
Teaches the use of 35 mm Digital SLR cameras, digital printers, and digital photography technology in relation to black & white photography and color photography. Includes basic photographic methods and skills in digital image capture, digital image manipulation, digital image printing, and presentation of photographs. Integrated Lecture/Lab: 3 credits (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

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. Pre-requisite: VCA 160 with a grade of C or better or consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

VCA 170(3) Course ID:000212
Advertising Design I
Introduces the principles and practices of graphic design. Includes terminology and procedures commonly used in graphic design, along with the Macintosh computer system and software used in illustration and graphic design for the print media and for the Internet, and navigation through and searching for information on the Internet using a web browser. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Computer Literacy, Technical

VCA 171(3) Course ID:005395
Advertising Design II
Explores basic to intermediate skills in electronic publishing, design layout, type composition, and prepress for printing and publishing applications. Pre-requisite: VCA 170 with a grade of C or better or Consent of Instructor. Lecture: 2 credits (30 contact hours), Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

VCA 240(3) Course ID:000213
Package Design
Explores the development of brand identity as it relates to packaging. Introduces concepts, theories, terminology, design, and production of hard and soft wall three-dimensional packaging and product labels. Emphasizes creative problem solving and legal requirements for the packaging industry. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 125 and VCC 110. Lecture: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCA 250(3) Course ID:004553
Advertising Design
Explores and reviews the role of advertising in the marketing mix, and the function of major media forms. Uses a creative brief process to research, create, and design promotional concepts that meet assignment specifications. Emphasizes legal strategies involved in advertising. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 125 and VCC 110. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCA 251(3) Course ID:005384
Digital Filmmaking III
Provides training in single-person video production with an emphasis on Electronic News Gathering style of video. Covers news interviews, TV commercials, and documentaries. Pre-requisite: 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).
Components: Laboratory, Lecture Attributes: Technical

VCA 252(3) Course ID:005385
Digital Filmmaking IV
Provides training in multiple-person video production with an emphasis on Film-Style video production, story telling, TV commercials, and documentaries. Pre-requisite: 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).
Components: Laboratory, Lecture Attributes: Technical
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<th>Course ID</th>
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<th>Components</th>
<th>Pre-requisite</th>
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<td>VCA 255(3)</td>
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<td>VCA 298(2-6)</td>
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<td>VCC 125 and VCC 110. Lab: 1.0 credit (15 contact hours), Lab: 2.0 credits (75 contact hours/37.5:1 ratio).</td>
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<td>VCA 280(2)</td>
<td>Instructor Consent Required Professional Portfolio Development</td>
<td>Technical</td>
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<td>VCA 280(3)</td>
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<td>VCC 100(3)</td>
<td>Introduction to Visual Communication</td>
<td>Technical</td>
<td>Lecture/Labor</td>
<td>VCC 280, VCA 261 or VCA 271 with a grade of C or greater or Consent of Instructor. Lecture: 1 credits (15 contact hours) LabPracticum: 3 credits (150 contact hours/50:1 ratio).</td>
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<td>VCC 105(3)</td>
<td>Fundamentals of Typography</td>
<td>Technical</td>
<td>Lecture/Labor</td>
<td>VCC 260 with a grade of “C” or better. Lecture: 3.0 credits (45 contact hours).</td>
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<td>VCC 106(3)</td>
<td>Typography</td>
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<td>VCC 110(3)</td>
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<td>VCC 125(3)</td>
<td>Computer Graphics I</td>
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<td>VCC 200(3)</td>
<td>Illustrator Basics</td>
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<td>Lecture/Labor</td>
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<td>VCC 210(3)</td>
<td>Advanced Computer Illustration</td>
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<td>Lecture/Labor</td>
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<td>VCC 214(3)</td>
<td>Production Design I</td>
<td>Technical</td>
<td>Lecture/Labor</td>
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<td>Advertising Design IV</td>
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<td>Photo Editing for Photography</td>
<td>Technical</td>
<td>Lecture/Labor</td>
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<td>VCC 150(3)</td>
<td>Mac Basics</td>
<td>Digital Literacy</td>
<td>Lecture/Labor</td>
<td>VCC 260 with a grade of “C” or better. Lecture: 3.0 credits (45 contact hours).</td>
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<td>VCC 166(3)</td>
<td>Photoshop Basics</td>
<td>Digital Literacy</td>
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VCC 216(3) Course ID:006860
Production Design II
Introduces students to the technologies of pad printing and screen printing. Provides students with knowledge and training of various equipment and procedures to properly prepare graphics for these printing technologies. Provides students with training in appropriate software applications designed to use to design and prepare graphics, or to use a variety of substrates, and promotional items. Students must receive a grade of “C” or better to advance in all Visual Communication courses. Pre-requisite or Co-requisite: VCC 110 & VCC 125. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 218(3) Course ID:006861
Production Design III
Provides basic knowledge of the steps and procedures used to prepare, troubleshoot, and correct files for digital printing. Provides students with the basic skills to produce and utilize PDF files. Provides knowledge in the importance of proper imposition and page-layout of various publications. Provides knowledge and training of various finishing and binding techniques used in the industry. Students must receive a final grade of “C” or better to Advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

VCC 220(3) Course ID:004473
InDesign Basics
Develops skills in page design and layout using Adobe InDesign software. Apply concepts and mechanics of page layout to create a variety of publications from simple page to multi-page documents. Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: Digital Literacy or VCC 125. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 230(3) Course ID:004462
Instructor Consent Required Advanced InDesign
Provides advanced skills in page design and layout using Adobe InDesign software. Design and creation of a variety of complex and multi-page documents will be the focus of this course. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 220. Lecture/Lab: 3 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

VCC 235(3) Course ID:016770
Graphic Design I
Explores the use of elements and principles of design in the creative ideation process. Uses the creative brief process to research, design, and create corporate identities, logos, promotional items, collateral materials and advertising. Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 215. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 245(3) Course ID:016771
Graphic Design II
Explores advanced techniques in the creative ideation process to design professional corporate identities, product labels, promotional items, collateral materials, signage and advertising campaigns. Emphasizes the use of graphics standards for corporate branding. Defines industry standards and specifications for product labels. Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 235. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 255(3) Course ID:016772
Emerging Media Design
Explores latest trends of new media technology related to the visual communication field. Topics will be specified by instructor according to latest trends in the region that could include social media, interactive media, advertising and marketing trends and a variety of media technologies. Pre-requisite: VCC 110 and VCC 125. Integrated Lecture/ Lab: 3 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

VCC 260(3) Course ID:001509
Instructor Consent Required Computer Graphics II
Provides advanced skills in computer graphics using Adobe InDesign, Photoshop, and Illustrator. Create a variety of complex designs and multi-page documents will be the focus of this course. Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 and VCC 125 or Permission of Instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 266(3) Course ID:005142
Advanced Photoshop
Develops advanced skills to digitally manipulate, enhance, and create composite photographs. Applies advanced principles, concepts, and techniques for graphic design and digital photography. Creation and manipulation of graphics for complex images and designs will be the focus of this course. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 166. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 270(3) Course ID:005798
Acrobat Basics
Provides students with the basic skills using Adobe Acrobat to produce and utilize PDF documents. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCC 285(3) Course ID:017318
Production Design IV
Introduces concepts, vocabulary, and processes used in relation to design and produce vehicle wraps, wall wraps, and other large format graphics. Provides knowledge in the operation of wide format printers, laminators, and vinyl cutters. Covers substrates and laminates for various applications, tools and supplies for preparation and installation of printed graphics, and techniques used to install graphics. Provides students with knowledge and training in design and RIP software used to produce graphics. Students will troubleshoot files and production workflow. Pre-requisite: VCC 110, VCC 125, VCC 214. Integrated Lecture/Lab: 3 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

VCC 297(3) Course ID:004469
Instructor Consent Required Internship
Provides supervised on-the-job work experience related to the students educational objectives. Students participating in Internships do not receive compensation for their work. Co-Op/Internship: 3 credits (160 contact hours). Pre-requisite: Permission of Instructor.
Components: Co-op
Attributes: Technical

VCC 298(3) Course ID:004463
Instructor Consent Required Practicum
Provides supervised on-the-job work experience related to the student's educational objectives. Student participating in the Practicum do not receive compensation. Practicum/ Internship: 3 credits (180 contact hours). Pre-requisite: Permission of Instructor.
Components: Practicum
Attributes: Technical

VCM 110(3) Course ID:004453
Fundamentals of Animation
Explores the fundamentals of 2-D animation through history, theory and practical application. Covers the basic concepts of animation, including: character design and development, character environment, and storytelling. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCM 115(3) Course ID:004452
2-D Animation
Introduces basic computer animation using industry standard software. Uses software to create 2-D animations for various multi-media projects. Students must receive a letter grade of “C” or better. Lecture: 1.0 credit (15 contact hours); Laboratory: 2.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

VCM 125(3) Course ID:015851
Foundations of Video Production
Introduces students to the basics of video production and animation. Includes screenwriting, storyboards, and planning a video production and animation project. Familiarizes students with video, lighting, and sound equipment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCM 140(3) Course ID:001762
Digital Video
Presents techniques for digital audio and video acquisition, equipment, and editing software. Emphasis on planning and creating storyboards for digital video project from conception to final product. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCM 150(3) Course ID:017076
Audio Production 1
Introduce basic technical skills, recording equipment, and vocabulary for audio production. Develop skills in evaluation and listening to audio recordings. Utilize industry software for audio recording and editing. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCM 205(3) Course ID:004454
Introduction to HTML
Introduces the creation of Web sites using hypertext markup language (HTML) and cascading style sheets (CSS). Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCM 210(3) Course ID:004344
3-D Animation
Introduces the principles of animation. Uses commercial 3-D animation packages and storyboards to produce 3-D models and animations. Students must receive a letter grade of “C” or better. Pre-requisite Or Co-requisite: VCM 115. Lecture: 1.0 credit (15 contact hours); Lab: 2.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

VCM 215(3) Course ID:005143
After Effects
Introduces basic compositing techniques and motion graphics using Adobe AfterEffects. Emphasizes an understanding of pre-production for AfterEffects, green screen, lighting, key-framing, creating mattes, animating text, syncing to audio and exporting movies. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
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 principles and practices, and metallurgy. Shop safety and equipment use are also covered. Lecture: 2 credits (30 contact hours) Co-requisite: WLD 101 or Consent of Instructor.
Components: Lecture Attributes: Technical

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) Co-requisite: WLD 100 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 110(2) Course ID:004605
Cutting Processes
A working knowledge of various cutting processes used by the welding industry. Will include, but is not limited to, safety, theory of operation, setup and operating techniques, troubleshooting and making minor equipment repairs, 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 process. Lecture: 2 credits (30 contact hours) Co-requisite: WLD 111 or Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 111(3) Course ID:004577
Cutting Processes Lab
Designed to provide the student with practical experience to become proficient in the use of various metal cutting processes. Safety, setup, and operating techniques are employed. Students will troubleshoot and make minor repairs to equipment. Students will also learn to identify, repair, and prevent reoccurrence of cut surface discontinuities. Processes shall include, but not limited to: OFC, PAC, AAC, and mechanical methods. Various materials will be used where appropriate. Lab: 3 credits (90 contact hours/30:1 ratio) Co-requisite: WLD 110 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 120(2) Course ID:004600
Shielded Metal Arc Welding
Teaches the student identification, inspection, and maintenance of SMAW electrodes; principles of SMAW, the effects of variables on the SMAW process to weld plate and pipe; and metallurgy. Lecture: 2 credits (30 contact hours) Co-requisite: WLD 121 or Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 121(3) Course ID:004578
Shielded Metal Arc Welding 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) Co-requisite: WLD 120 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 123(3) Course ID:004599
Shielded Metal Arc Welding Groove with Backing Lab
Provides experiences in which students acquire the manipulative skills to do groove welds in all positions with backing. Lab: 3 credits (90 contact hours/30:1 ratio) Co-requisite: WLD 120 and 121 or Consent of Instructor.
Components: Laboratory Attributes: Technical

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 metallurgy. This course also teaches the theory and application of Plasma Arc Cutting. Co-requisite: WLD 131 or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

WLD 131(3) Course ID:004580
Gas Tungsten Arc Welding Fillet Lab
Teaches the necessary manipulative skills needed to apply the Gas Tungsten Arc on various joint designs on plate with both ferrous and non-ferrous metals. Plasma Arc cutting included. Co-requisite: WLD 130 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

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. Pre-requisite: WLD 130 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 140(2) Course ID:004582
Gas Metal Arc Welding
Identification, inspection, and maintenance of GMAW machines; identification, selection, and storage of GMAW electrodes; principles of GMAW; and the effects of variables on the GMAW process. Theory and applications of related processes such as FCAW and SAW and metallurgy are also included. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

WLD 141(3) Course ID:004583
Gas Metal Arc Welding Fillet Lab
Teaches the practical application and manipulative skills of Gas Metal Arc Welding and the proper safety situations needed in this process. Both ferrous and non-ferrous metals will be covered, as well as various joint designs on plate in all positions. Co-requisite: WLD 140 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 143(3) Course ID:004584
Gas Metal Arc Welding Groove Lab
Teaches the method of operation and application of the gas metal arc welding process for welding groove welds in both ferrous and non-ferrous plate in all positions using both short circuiting and spray transfer where appropriate. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 145(1) Course ID:004586
Gas Metal Arc Welding Aluminum Lab
Teaches welding aluminum using the GMAW process. Fillets and groove welds are made in all positions in both plate and pipe. Short Circuiting and Spray transfers are used where appropriate. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio)
Components: Laboratory Attributes: Technical

WLD 147(1) Course ID:004585
Flux Cored Arc Welding Lab
Acquaints the student with the method of operation and application of the flux cored welding system. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 151(2) Course ID:004603
Basic Welding A
Introduction to welding, cutting processes, and related equipment. Basic setup, operation, and related safety are applied. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

WLD 152(5) Course ID:004441
Basic Welding B
An introduction to common cutting and welding processes used in industry. Theory, setup, operation, and related safety are applied. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

WLD 161(1) Course ID:004602
Submerged Arc Welding Lab
Designed to provide the student with a working knowledge of SAW set-up, maintenance, and consumable identification. Includes practice in basic SAW principles and techniques related to the field of study. Lecture: 1 credit (30 contact hours/30:1 ratio). Pre-requisite: WLD 140 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 170(2) Course ID:004587
Blueprint Reading for Welding
Provides a study of occupationally specific prints for welders. Advanced study of multi-view drawings, assembly drawings, datum dimensions, numerical control drawings, sheet metal prints, castings and forgings, instrumentation and control charts and diagrams, working drawings, geometric dimensioning and tolerancing and use of reference materials and books are included. Occupational specifics including welding drawings, symbols, joint types, grooves, pipe welding symbols, testing symbols and specification interpretations are stressed. Lecture: 2 credits (30 contact hours). Co-requisite: WLD 171 or Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 171(3) Course ID:004588
Blueprint Reading for Welding Lab
Provides students with an understanding of the fabrication process through computer modeling systems and creation of prints or through practice fabricating from a blueprint. Allows students to read and fabricate from detail prints, control distortion during fabrication, and follow proper welding sequence. Provides the option to generate detailed prints, create digital files, and generate work detailing the proper welding sequences. Utilizes welding symbols and study weld sizes and strengths. Lab: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 170 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 181(1) Course ID:004601
Advanced Welding Systems Lab
Provides the student a working knowledge and hands on experience using advanced arc welding machines (STT surface tension transfer and pulsed GMA welding) on various joints and metals. Laboratory: 1 credit (30 contact hours/30:1 ratio). Pre-requisite: WLD 140 and 141 or Consent of Instructor.
Components: Laboratory Attributes: Technical

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. Pre-requisite: Consent of Instructor.
Components: Lecture Attributes: Technical
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. Documents used in welding certification are developed and used. Co-requisite: WLD 221 or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

WLD 221(3) Course ID:004590
Welding Certification Lab
Provides students an opportunity to test on all types of welding for certification standards. Laboratory: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 220 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 225(3) Course ID:004591
Shielded Metal Arc Welding Pipe Lab A
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). Pre-requisite: WLD 120 or 121 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 227(3) Course ID:004592
Shielded Metal Arc Welding Pipe Lab B
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). Pre-requisite: WLD 225 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 229(3) Course ID:004593
Shielded Metal Arc Welding Pipe Lab B
Teaches the required manipulative skills to arc weld pipe using mild steel electrodes in the 6G position including proper pipe preparations, electrodes, safety precautions, and welding sequences. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 225 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 235(3) Course ID:004594
Gas Tungsten Arc Welding Pipe Lab A
Teaches the method of operation and application of the gas tungsten arc welding system for welding of both ferrous and non-ferrous pipe in 2G and 5G positions. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 133 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 237(3) Course ID:004595
Gas Tungsten Arc Welding Pipe Lab B
Teaches the method of operation and application of the gas tungsten arc welding process for welding of both ferrous and non-ferrous pipe in 6G and 5G positions. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 133 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 239(1) Course ID:005310
Orbital Tube Welding
Familiarizes students with the orbital weld system, basic setup, operation, and safety. Pre-requisite: WLD 130 & WLD 131 or Permission of Instructor. Laboratory: 1 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

WLD 245(3) Course ID:004604
Gas Metal Arc Welding Pipe Lab A
Acquaints the student with the operation and application of the Gas Metal Arc System for welding pipe in 2G and 5G positions. Laboratory: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 143 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 247(3) Course ID:004597
Gas Metal Arc Welding Pipe Lab B
Acquaints the student with the operation and application of the Gas Metal Arc System for welding groove welds in pipe in 6G position. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 143 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 251(1 - 6) 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. Pre-requisite Or Co-requisite: WLD 140/141, or consent of instructor. Lab: 1-6 credit hours (30-180 contact hours).
Components: Laboratory
Attributes: Technical

WLD 253(1) Course ID:004607
Pipe Fitting and Template Development Lab
Provides experiences in pipe template development and job knowledge and experience with the techniques and tools used to field layout, cut, and fit the various pipe joints that are used in pipe trades. Lab: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

WLD 298(1 - 6) Course ID:004443
Instructor Consent Required
Welding Practicum
Provides on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. Laboratory: 1-6 credits (30-180 contact hours/30:1 ratio). Pre-requisite: Consent of Instructor.
Components: Practicum
Attributes: Technical

WLD 299(1 - 6) Course ID:004598
Instructor Consent Required
Cooperative Education Program
Provides supervised on-the-job work experience related to the student’s educational objectives. Pre-requisite: Consent of Instructor. Co-Op: Varies.
Components: Co-Op
Attributes: Technical

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. Lecture: 2 credits (60 contact hours).
Components: Lecture
Attributes: Technical

WMT 120(4) Course ID:002177
Wood Product Manufacturing
Fundamentals of wood processing and an overview of the secondary wood processing industry are covered in this course. The nature of wood, material selection, technology, safety 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. Lecture: 4 credits (120 contact hours).
Components: Lecture
Attributes: Technical

WMT 198(2 - 4) Course ID:002179
Instructor Consent Required
Practicum
The practicum provides supervised work experience related to the student's educational objectives. Students participating in the practicum do not receive compensation.
Components: Practicum
Attributes: Technical

The course may be taken for 2 - 4 credits. Pre-requisite: Permission of the Instructor
Components: Practicum
Attributes: Technical

WMT 199(2) Course ID:002180
Instructor Consent Required
Cooperative Education
Co-op provides supervised work experience related to the student’s educational objectives. Students participating in the cooperative education program receive compensation for their work. Pre-requisite: Permission of the Instructor, Co-Op: 2 credits (150 contact hours).
Components: Co-Op

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. Pre-requisite: 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. Pre-requisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).
Components: Lecture

WMT 280(2) Course ID:002189
Instructor Consent Required
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. Pre-requisite: Permission of the Instructor. Lecture: 2 credits (60 contact hours).
Components: Lecture

WMT 290(4) Course ID:002190
Instructor Consent Required
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. Pre-requisite: 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
Attributes: Enrichment Course Other

WPP 2001(1) Course ID:016787
Soft Skills
Soft Skills Workplace Principles examines the changing workforce and the skills needed to adapt to constantly changing demands and expectations. The course includes but is not limited to problem solving, teamwork, time management, and self-management skills. 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: 1 credit (15 contact hours).
Components: Lecture
Attributes: Enrichment Course Other
Appendix A

**Determination of Residency Status for Admission and Tuition Purposes**

13 KAR 2.045.

Determination of residency status for admission and tuition assessment purposes.


STATUTORY AUTHORITY: KRS 164.020(8)

NECESSITY, FUNCTION, AND CONFORMITY: KRS 164.020(8) requires the Council on Postsecondary Education to determine tuition and approve the minimum qualifications for admission to a state postsecondary education institution and authorizes the Council to set different tuition amounts for residents of Kentucky and for nonresidents. This administrative regulation establishes the procedure and guidelines for determining the residency status of a student who is seeking admission to, or who is enrolled at, a state-supported postsecondary education institution.

Section 1. Definitions.

(1) "Academic term" means a division of the school year during which a course of studies is offered, and includes a semester, quarter, or single consolidated summer term as defined by the institution.

(2) "Continuous enrollment" means enrollment in a state-supported postsecondary education institution at the same degree level for consecutive terms, excluding summer term, since the beginning of the period for which continuous enrollment is claimed unless a sequence of continuous enrollment is broken due to extenuating circumstances beyond the student’s control, such as serious personal illness or injury, or illness or death of a parent.

(3) "Degree level" means enrollment in a course or program that could result in the award of a:
   (a) Certificate, diploma, or other program award at an institution;
   (b) Baccalaureate degree or lower, including enrollment in a course by a nondegree-seeking post baccalaureate student;
   (c) Graduate degree or graduate certification other than a first-professional degree in law, medicine, dentistry, or "Pharm. D"; or
   (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 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 purposes 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 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 nongenocultural 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.

(16) "Sustenance" means:
   (a) Living expenses, such as room, board, maintenance, and transportation; and
   (b) Educational expenses, such as 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) In accordance with the duties established in KRS 164.020, 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) Unless otherwise indicated, this administrative regulation shall apply to all student residency determinations, regardless of circumstances, including residency determinations made by:
   (a) The state-supported institutions for prospective and currently-enrolled students;
   (b) The Southern Regional Education Board for contract spaces;
   (c) Reciprocity agreements, if appropriate;
   (d) The Kentucky Virtual University;
   (e) Academic common market programs;
   (f) The Kentucky Educational Excellence Scholarship Program; and
   (g) 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:
      1. During the admission process;
      2. Upon enrollment in an institution for a specific academic term; or
      3. 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 when the student applied 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 earns 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 shall be predicated on the assumption that a dependent student 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 when 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 a nonresident alien, as defined in KRS 164A.020.

(3) Membership in the National Guard or civilian employment at a military base located in Kentucky shall be a factor in establishing that a person is dependent.

(4) Membership in the National Guard or civilian employment at a military base located in Kentucky shall be considered in establishing Kentucky domicile and residency.

(5) Marriage of 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 other person as a dependent, shall be considered in establishing Kentucky domicile and residency.

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 reassessed if continuous enrollment is broken or the current degree level is completed.

Section 7. Member or Former Member of Armed Forces of the United States, Spouse and Dependent; Effect on a Determination of Residency Status.

(1) A member, spouse, or dependent of a member whose domicile and residency was Kentucky when inducted into the Armed Forces of the United States, and who maintains Kentucky as home of record and permanent address, shall be entitled to Kentucky residency status:

(a) During the member’s time of active service; or
(b) If the member returns to this state within six (6) months of the date of the member’s discharge from active duty.

(2) A member of the armed services on active duty for more than thirty (30) days and who has a permanent duty station in Kentucky shall be classified as a Kentucky resident and shall be entitled to in-state tuition, as shall the spouse or a dependent child of the member.

(3) Membership in the National Guard or civilian employment at a military base located in Kentucky shall be a factor in establishing that a person is dependent.

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. The provisions of subsections (1) and (2) of this section shall be considered in establishing Kentucky domicile and residency.

(2) A person holding a nonimmigrant visa with designation A, E, G, H-1, H-4 if accompanying a person with an H-1 visa, I, K, L, N, R, shall establish domicile and residency as the same as another person.

(3)(a) An independent person holding a nonimmigrant visa with designation B, C, D, F, J, L, M, O, P, Q, S, T, or other visa shall not be classified as a Kentucky resident because that person does not have the capacity to remain in Kentucky indefinitely and therefore cannot form the requisite intent necessary to establish domicile as defined in Section 1(6) of this administrative regulation.

(b) A dependent person holding a visa as described in paragraph (a) of this subsection, but who is a dependent of a parent, shall not be classified as a Kentucky resident because that person does not have the capacity to remain in Kentucky indefinitely and therefore cannot form the requisite intent necessary to establish domicile as defined in Section 1(6) of this administrative regulation.

(c) A dependent person holding a visa as 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 who is a resident of Kentucky for the purpose of this administrative regulation and is a resident of a state other than Kentucky shall be entitled to in-state tuition.

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.

(1)(a) A determination of Kentucky domicile and residency shall be based upon verifiable circumstances or actions.

(b) A single fact shall not be paramount, and each situation shall be evaluated to identify those facts essential to the determination of domicile and residency.

(c) A person shall not be determined to be a Kentucky resident by the performance of an act that is incidental to fulfilling an educational purpose or by an act performed as a matter of convenience.

(d) Mere physical presence in Kentucky, including living with a relative or friend, shall not be sufficient evidence of domicile and residency.

(e) A student or prospective student shall respond to all requests for information regarding domicile or residency requested by an institution.

(2) The following facts, although not conclusive, shall have probative value in their entirety and shall be individually weighted, appropriate to the facts and circumstances in each determination of residency.

(a) Acceptance of an offer of full-time employment or transfer to an employer in Kentucky or contiguous area while maintaining residence and domicile in Kentucky;

(b) Continuous physical presence in Kentucky while in a nonstudent status for the twelve (12) months immediately preceding the start of the academic term for which a classification of Kentucky residency is sought;

(c) 1. Filing a Kentucky resident income tax return for the calendar year preceding the date of application for a change in residency status; or 2. Payment of Kentucky withholding taxes while employed during the calendar year for which a change in classification is sought;

(d) Full-time employment of at least one (1) year while living in Kentucky;

(e) Attendance as a full-time, nonresident student at an out-of-state institution based on a determination by that school that the person is a resident of Kentucky;

(f) Abandonment of a former domicile or residence and establishing domicile and residency in Kentucky with application to or attendance at an institution following and incidental to the change in domicile and residency;

(g) Obtaining licensing or certification for a professional and occupational purpose in Kentucky;

(h) Payment of real property taxes in Kentucky;

(i) Ownership of real property in Kentucky, if the property was used by the student as a residence preceding the date of application for a determination of residency status;

(j) Marriage of an independent student to a person who was domiciled in and a resident of Kentucky prior to the marriage; and

(k) The extent to which a student is dependent on student financial aid in order to provide basic sustenance.

(3) Except as provided in subsection (4) of this section, the following facts, because of the ease and convenience in completing them, shall have limited probative value in a determination that a person is domiciled in and is a resident of Kentucky.

(a) Kentucky automobile registration;

(b) Kentucky driver’s license;

(c) Registration as a Kentucky voter;

(d) Long-term lease of at least twelve (12) consecutive months of noncollege housing; and

(e) Continued presence in Kentucky during academic breaks.

(4) The absence of a fact contained in subsection (3) of this section shall have significant probative value in determining that a student is not domiciled in or is not a resident of Kentucky.

Section 11. Effect of a Change in Circumstances on Residency Status.

(1) If a person becomes independent or if the residency status of a parent or parents of a dependent person changes, an institution shall reassess residency either upon a request by the student or a review initiated by the institution.

(2) Upon transfer to a Kentucky institution, a student’s residency status shall be assessed by the receiving institution.

(3) A reconsideration of a determination of residency status for a dependent person shall be subject to the provisions for continuous enrollment, if applicable.

Section 12. Student Responsibilities.

(1) A student shall report under the proper residency classification, which includes the following actions:

(a) Raising a question concerning residency classification;

(b) Making application for change of residency classification with the designated office or person at the institution; and

(c) Notifying the designated office or person at the institution immediately upon a change in residency status.

(2) If a student fails to notify an institutional official of a change in residency, an institutional official may investigate and evaluate the student’s residency status.

(3)(a) If a student fails to provide, by the date specified by the institution, information required by an institution in a determination of residency status, the student shall be notified by the institution that the review has been canceled and that a determination has been made.

(b) Notification shall be made by registered mail, return receipt requested.

(4) The formal hearing conducted by an institution and the final recommended order shall be a final administrative action with no appeal to the Council on Postsecondary Education.

(b) A formal administrative hearing conducted by the Council on Postsecondary Education for residency determinations related to eligibility for the Academic Common Market and Regional Contract Programs shall be conducted pursuant to the provisions of KRS Chapter 13B and 13 KAR 2:070. The recommended order issued by the President of the Council shall be a final administrative action.

(5) A student shall not be entitled to appeal a determination of residency status if the determination made by an institution is because a student has failed to meet published deadlines for the submission of information as set forth in subsection (3) of this section. A student may request a review of a determination of residency status in a subsequent academic term.

Section 13. Institutional Responsibilities. Each institution shall:

(1) Provide for an administrative appeals process that includes a residency appeals officer to consider student appeals of an initial residency determination and which shall include a provision of fourteen (14) days for the student to appeal the residency appeals officer’s determination;

(2) Establish a residency review committee to consider appeals of residency determination by the residency appeals officer. The residency review committee shall make a determination of student residency status and notify the student in writing within forty-five (45) days after receipt of the student appeal;

(3) Establish a formal hearing process as described in Section 14 of this administrative regulation;

(4) Establish written policies and procedures for administering the responsibilities established in subsections (1), (2), and (3) of this section and that are:

(a) Approved by the institution’s governing board;

(b) Made available to all students; and

(c) Filed with the council.


(1) A student who appeals a determination of residency by a residency review committee shall be granted a formal hearing by an institution if the request is made by a student in writing within fourteen (14) calendar days after notification of a determination by a residency review committee.

(2) If a request for a formal hearing is received, an institution shall appoint a hearing officer to conduct a formal hearing. The hearing officer shall:

(a) Be a person not involved in determinations of residency at an institution except for formal hearings; and

(b) Not be an employee in the same organizational unit as the residency appeals officer.

(3) An institution shall have written procedures for the conduct of a formal hearing that have been adopted by the board of trustees or regents, as appropriate, and that provide for:

(a) A hearing officer to make a recommendation on a residency appeal;

(b) Guarantees of due process to a student that include:

1. The right of a student to be represented by legal counsel; and

2. The right of a student to present information and to present testimony and information in support of a claim of Kentucky residency; and

(c) A recommendation to be issued by the hearing officer.

(4) An institution’s formal hearing procedures shall be filed with the Council on Postsecondary Education and shall be available to a student requesting a formal hearing.

Section 15. Cost of Formal Hearings.

(1) An institution shall pay the cost for all residency determinations including the cost of a formal hearing.

(2) A student shall pay for the cost of all legal representation in support of the student’s claim of residency. (17 Ky.R. 2557; eff. 4-5-1991; Am. 22 Ky.R. 1656; 1988; eff. 5-16-1996; 23 Ky.R. 3380; 3797; 4099; eff. 6-16-1997; 24 Ky.R. 2136; 2705; 25 Ky.R. 51; eff. 7-13-1998; 25 Ky.R. 2177; 2577; 2827; eff. 6-7-1999; 749; 1238; eff. 11-12-2002; 36 Ky.R. 1083; 1951; 2033-M, eff. 4-2-2010; TAM eff. 11-20-2014; 41 Ky.R. 2108; 42 Ky.R. 9; eff. 7-13-2015; TAM 7-13-2015).
## Math Course Transitions

### Crosswalk – Mathematics

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<td>MA 193</td>
<td>Supplementary Mathematics Workshop I: (Topic)</td>
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<td>Supplementary Mathematics Workshop II: (Topic)</td>
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<td>MA 201</td>
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<tr>
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<td>MAT 215</td>
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<td>Mathematics for Elementary Teachers I</td>
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<td>STA 200</td>
<td>Statistics: A Force in Human Judgment</td>
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<td>STA 291</td>
<td>Statistical Methods</td>
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<td>Instructor Consent Required AAS Mathematics: (Topic)</td>
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<td>College Algebra</td>
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<td>College Algebra and Functions</td>
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<td>Finite Mathematics and its Applications</td>
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<td>MAT 170</td>
<td>Brief Calculus with Applications</td>
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<td>Brief Calculus with Applications</td>
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<td>MAT 175</td>
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<td>Calculus II</td>
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<td>MT 205</td>
<td>Mathematics For Elementary and Middle School Teachers I</td>
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<td>MAT 206</td>
<td>Mathematics For Elementary and Middle School Teachers II</td>
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<td>Mathematics For Elementary and Middle School Teachers II</td>
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<tr>
<td>MAT 261</td>
<td>Introduction to Number Theory</td>
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<td>MAT 275</td>
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<td>Differential Equations</td>
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<tr>
<td>STA 220</td>
<td>Statistics</td>
<td>ST 291</td>
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</table>
Below is a table clarifying the math course transition that took place Fall 2004. Courses with the MT prefix that are below the 100-level are transitional courses. MT courses between 100 and 139 are specifically designed for occupational/technical programs. Courses numbered 140 and above are designed as transfer courses.

<table>
<thead>
<tr>
<th>New Course</th>
<th>Credit</th>
<th>Prereq. Course</th>
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<tr>
<td>MT 050 Dev. Math Workshop</td>
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<td>None</td>
<td>MAH 065, MTH 199</td>
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<td>MT 055 Pre-Algebra</td>
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<td>MAH 060, MTH 100</td>
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<td>MT 065 Basic Algebra w/Measurement</td>
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<td>MT 055</td>
<td>MAH 070, MTH 110,</td>
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<tr>
<td>MT 075 Pre-College Geometry</td>
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<td>MT 055</td>
<td>MAH 075</td>
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<td>MT 100 College Algebra Workshop</td>
<td>2</td>
<td>MAH 100</td>
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<tr>
<td>MT 105 Business Math.</td>
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<td>MT 065</td>
<td>MAH 121</td>
</tr>
<tr>
<td>MT 110 Applied Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 151</td>
</tr>
<tr>
<td>MT 115 Technical Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 125, MTH 120,</td>
</tr>
<tr>
<td>MT 115 Technical Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 125, MTH 130,</td>
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<tr>
<td>MT 120 Intermediate Algebra w/Applications</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 083, MA 108, MTH 160</td>
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<tr>
<td>MT 122 Intermediate Algebra: A Functional Approach</td>
<td>4</td>
<td>MT 065</td>
<td>MAH 080</td>
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<td>MT 125 Technical Algebra &amp; Trigonometry</td>
<td>3</td>
<td>MT 065</td>
<td>MTH 170, MTH 175, MTH 101</td>
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<td>MT 139 AAS Mathematics Application: (Topic)</td>
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<tr>
<td>MT 145 Contemporary College Mathematics</td>
<td>3</td>
<td>MT 120 or MT 122</td>
<td>MT 107</td>
</tr>
<tr>
<td>MT 150 College Algebra</td>
<td>3</td>
<td>MT 120 or MT 122 or MT 125</td>
<td>MT 109</td>
</tr>
<tr>
<td>MT 155 Trigonometry</td>
<td>3</td>
<td>MT 120 or MT 122 or MT 125</td>
<td>MT 109</td>
</tr>
<tr>
<td>MT 190 Mathematics Workshop</td>
<td>1 – 2</td>
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## Biology Crosswalk

This table includes changes made to Biology courses effective Fall 2010.

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<tr>
<th>Biology Topics</th>
<th>New Course #</th>
<th>Old Course #</th>
<th>Course Title</th>
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<tbody>
<tr>
<td><strong>Transitional Biology Courses</strong></td>
<td>BIO 026</td>
<td>BSL 025</td>
<td>Orientation to College Biology</td>
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<tr>
<td>BIO 112</td>
<td>BIO 103</td>
<td>Basic Ideas of Biology</td>
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<tr>
<td>BIO 113</td>
<td>BIO 111</td>
<td>Introduction to Biology Lab</td>
<td></td>
</tr>
<tr>
<td>BIO 114</td>
<td>BSL 102</td>
<td>Biology I</td>
<td></td>
</tr>
<tr>
<td>BIO 115</td>
<td>BSL 100</td>
<td>Biology Laboratory I</td>
<td></td>
</tr>
<tr>
<td>BIO 116</td>
<td>BSL 103</td>
<td>Biology II</td>
<td></td>
</tr>
<tr>
<td>BIO 117</td>
<td>BSL 101</td>
<td>Biology Laboratory II</td>
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</tr>
<tr>
<td>BIO 118</td>
<td>-----------</td>
<td>Microbes and Society</td>
<td></td>
</tr>
<tr>
<td>BIO 220</td>
<td>BIO 204</td>
<td>The Genetic Perspective</td>
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<tr>
<td><strong>Dropped</strong></td>
<td>BSL 214</td>
<td>Medical Microbiology</td>
<td></td>
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<tr>
<td><strong>Dropped</strong></td>
<td>BSL 244</td>
<td>Principles of Environmental Science</td>
<td></td>
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<tr>
<td><strong>Dropped</strong></td>
<td>PGY 206</td>
<td>Elementary Physiology</td>
<td></td>
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<tr>
<td><strong>General Education Biology Courses</strong></td>
<td>BIO 120</td>
<td>BIO 102</td>
<td>Human Ecology</td>
</tr>
<tr>
<td>BIO 121</td>
<td>-</td>
<td>Introduction to Ecology Laboratory</td>
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</tr>
<tr>
<td>BIO 122</td>
<td>BSL 116</td>
<td>Introduction to Conservation Ecology</td>
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<tr>
<td>BIO 124</td>
<td>BSL 120</td>
<td>Principles of Ecology</td>
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<tr>
<td><strong>Ecology Courses</strong></td>
<td>BIO 130</td>
<td>BSL 109</td>
<td>Aspects of Human Biology</td>
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<tr>
<td>BIO 135</td>
<td>BSL 107</td>
<td>Basic Anatomy and Physiology w/ Lab</td>
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<tr>
<td>BIO 137</td>
<td>BSL 110</td>
<td>Human Anatomy and Physiology I</td>
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<td>BIO 139</td>
<td>BSL 111</td>
<td>Human Anatomy and Physiology II</td>
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<td>BIO 140</td>
<td>BIO 106/BSL 140</td>
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<td>BIO 106/BSL 140 and BIO 107</td>
<td>Botany with Laboratory</td>
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<td>BIO 142</td>
<td>BIO 104/BSL 160</td>
<td>Zoology</td>
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<td>BIO 143</td>
<td>BIO 104/BSL 160 and BIO 105</td>
<td>Zoology with Laboratory</td>
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<td><strong>Organismal Biology Courses</strong></td>
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<td>BIO 150</td>
<td>Principles of Biology I</td>
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<td>BIO 153</td>
<td>BIO 153</td>
<td>Principles of Biology Laboratory II</td>
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<td><strong>Biology Majors Courses</strong></td>
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<td>BIO 204</td>
<td>The Genetic Perspective</td>
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<td>Medical Microbiology</td>
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<td><strong>Molecular and Microbiology Courses</strong></td>
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<td>Principles of Environmental Science</td>
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<td>BSL 212</td>
<td>Medical Microbiology w/ Lab</td>
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<td>BIO 225</td>
<td>BIO 208</td>
<td>Principles of Microbiology</td>
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<td>BIO 226</td>
<td>BIO 208/209</td>
<td>Principles of Microbiology with Laboratory</td>
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<td><strong>Selected/Special Topics</strong></td>
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<td>BSL 295</td>
<td>Independent Investigation in Biology</td>
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<td>BIO 299</td>
<td>BSL 299</td>
<td>Selected Topics in Biology: Topic</td>
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## Crosswalk for Chemistry Courses

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<th>Approved Course Prefix/Number</th>
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<tr>
<td>CHE 120</td>
<td>The Joy of Chemistry*</td>
<td>CHE 115</td>
<td>General Chemistry Laboratory</td>
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<tr>
<td>CHE 125</td>
<td>The Joy of Chemistry Laboratory*</td>
<td>NEW</td>
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<tr>
<td>CHE 130</td>
<td>Introductory General and Biological Chemistry*</td>
<td>CHM 100</td>
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<td>CHE 140</td>
<td>Introductory General Chemistry*</td>
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<td>CHE 145</td>
<td>Introductory General Chemistry Laboratory*</td>
<td>CHM 104</td>
<td>Introductory General Chemistry Laboratory</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>
<td>Introduction to Organic and Biological Chemistry Laboratory*</td>
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<td>CHE 160</td>
<td>Preparation for General College Chemistry</td>
<td>CHM 102</td>
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<td>General College Chemistry I*</td>
<td>CHE 105</td>
<td>General College Chemistry I</td>
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<td>CHE 173</td>
<td>General College Chemistry I Workshop</td>
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<td>General College Chemistry Laboratory I*</td>
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<td>General College Chemistry II*</td>
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<td>CHE 185</td>
<td>General College Chemistry Laboratory II*</td>
<td>CHM 107</td>
<td>General Chemistry Laboratory II</td>
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<td>CHE 220</td>
<td>Analytical Chemistry*</td>
<td>CHE 226</td>
<td>Analytical Chemistry</td>
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<td>CHE 270</td>
<td>Organic Chemistry I*</td>
<td>CHE 230</td>
<td>Organic Chemistry I</td>
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<td>CHE 275</td>
<td>Organic Chemistry Laboratory I*</td>
<td>CHE 231</td>
<td>Organic Chemistry Laboratory I</td>
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<td>Organic Chemistry II*</td>
<td>CHE 232</td>
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<td>CHE 285</td>
<td>Organic Chemistry Laboratory II*</td>
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*General Education Status
### Agricultural Technology: 2011-2012

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<td>AGR 130</td>
<td>Field Applications in Agriculture</td>
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<td>AGR 140</td>
<td>Issues in Agriculture</td>
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<td>Agriculture Power</td>
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<td>AGR 165</td>
<td>Agriculture Seminar</td>
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<tr>
<td>AGR 170</td>
<td>Introduction to Equipment, Machines, and Engines</td>
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<td>Introduction to Equipment, Machines, and Engines</td>
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<td>AGR 180</td>
<td>Agriculture Internship I</td>
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<td>Introduction to Animal Science</td>
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<td>Introduction to Plants/Crop Production</td>
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### Agriculture: 2017-2018

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<td>Agriculture Maintenance</td>
<td>AGS 115</td>
<td>Agriculture Maintenance</td>
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<tr>
<td>AGR 135</td>
<td>Herbaceous Plant Production</td>
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<tr>
<td>AGR 145</td>
<td>Technology in Agriculture</td>
<td>AGS 145</td>
<td>Technology in Agriculture</td>
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<tr>
<td>AGR 155</td>
<td>Greenhouse Production</td>
<td>AGS 155</td>
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### Biotechnology: 2011-2012

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### New Courses

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### Collision Repair Technology: 2011-2012

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<td>Non-Structural Analysis and Damage Repair</td>
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<td>CRT 131</td>
<td>Non-Structural Analysis and Damage Repair Lab</td>
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<td>CRT 150</td>
<td>Painting and Refinishing</td>
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<td>CRT 151</td>
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### Computer Aided Drafting & Design: 2011-2012

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<td>CAD 112</td>
<td>Engineering Graphics</td>
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<td>Introduction to Architecture</td>
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<td>Parametric Modeling</td>
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<td>Advanced 3-D Modeling</td>
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<td>Industrial Drafting Processes</td>
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<td>Mechanical Design</td>
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**Computer and Information Technologies: 2012-2013**
(Previously listed under Computer Information Technology/Information Technology/ Computer Information Systems Technology)

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<td>Computer Hardware and Software</td>
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<td>Computational Thinking</td>
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<td>PHP I</td>
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<td>Introduction to Routing and Switching</td>
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<td>PHP II</td>
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<td>CIT 242</td>
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<td>Java II</td>
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<td>CIT 285</td>
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**Computerized Manufacturing and Machining: 2012-2013**
(Previously listed under Machine Tool Technology)

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### Cosmetology: 2011-2012

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<td>Special Problems I</td>
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<td>COS 205</td>
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### Criminal Justice: 2011-2012

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<td>Police Supervision</td>
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<td>Introduction to Firearms</td>
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<td>Community Corrections: Probation and Parole</td>
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### Dental Assisting/Dental Hygiene: 2011-2012

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### Dental Hygiene (BCTC): 2011-2012

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### Digital Game and Simulation Design: 2012-2013

(Previously listed under Digital Game Design)

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### Education: 2011-2012

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### Education: 2013-2014

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### Emergency Medical Services – Paramedic: 2013-2014

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**Energy Systems: 2011-2012**

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**Engineering and Electronics Technology: 2012-2013**

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**Foreign Language: 2010-2011**

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### General College Studies: 2010-2011

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### Global Studies: 2011-2012

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### Health Physics: 2011-2012

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## Human Services: 2011-2012

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## Industrial Safety: 2012-2013

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## Industrial Technology: 2012-2013

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### Math: 2012-2013

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### Medical Laboratory Technology: 2013-2014

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### Nuclear Medicine & Molecular Imaging: 2011-2012

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**Nursing (BCTC): 2011-2012**

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**Philosophy: 2010-2011**

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**Physics: 2010-2011**

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**Political Science: 2010-2011**

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NOTE: POL 271 removed from general education status.

**Professional Studio Artist: 2011-2012**

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**Professional Studio Artist: 2013-2014**

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**Psychology: 2010-2011**

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**Psychology: 2012-2013**

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## Psychology: 2013-2014

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## Radiography: 2011-2012

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*Cross-listed with ANT 130

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