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

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

You’re making a smart choice by choosing one of the 16 KCTCS colleges. Our tuition is the lowest in the state – less than half of what you’d pay at a four-year university. As you prepare to move forward in your higher ed journey, our faculty and staff will be there with you every step of the way. Our role is to make sure you succeed, so please let us know what we can do to help. If you have questions about anything you see in the catalog, how to enroll, financial aid or any other concern, contact the KCTCS college nearest you or call (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,

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

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

The 16 colleges of KCTCS have more than 70 campuses strategically located across the Commonwealth — from Ashland to Paducah and from Covington to Bowling Green — all 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. We offer more than 700 career-related programs. high wage fields. Additionally, KCTCS is the largest provider of online learning in the state offering more than 77 online programs.

Our programs target 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 have many business partnerships that help provide students with the skills required today and to help industries and individuals develop the capabilities they will need tomorrow. KCTCS is the largest provider of workforce training, serving nearly 6,000 businesses in 2016.

Last year alone, KCTCS trained and educated:

- More than 107,000 credit-seeking students.
- 82 percent of skilled trades workers.
- 69 percent of the state’s total allied health credentials.

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

Each KCTCS college 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/Admissions office at their local college for the local academic calendar.

The following closings are applicable to all KCTCS institutions:

July
4 Independence Day observed

September
4 Labor Day

November
23 Thanksgiving Day
24 Day After Thanksgiving

December
18 Institutional Closing
19 Institutional Closing
20 Institutional Closing
21 Institutional Closing
22 Institutional Closing
25 Institutional Closing
26 Institutional Closing
27 Institutional Closing
28 Institutional Closing
29 Institutional Closing

January
1 Institutional Closing
15 Martin Luther King Day

February
19 President’s Day

March
30 Good Friday (1/2 Day)

May
28 Memorial Day
KCTCS Leadership*

*This page reflects KCTCS leadership as of July 1, 2017

KCTCS Leadership

KCTCS Board of Regents
Ms. Marcia L. Roth, Board Chair
Dr. Gail R. Henson, Board Vice Chair
Ms. Ellen R. Braden
Mr. Robert G. Cooper
Ms. Lisa V. Desmarais
Dr. Angela Fultz
Mr. Montre’ale Jones
Ms. Mary R. Kinney
Mr. Barry K. Martin
Mr. Porter G. Peeples, Sr.
Mr. James Lee Stevens
Mr. Donald R. Tarter
Ms. Tammy C. Thompson
Mr. Mark A. Wells

Foundation Board of Directors
Raymond Daniels, Chair
Linda L. Rumpke, Treasurer
Barry S. Bishop, Secretary
F. Lee Hess, Immediate Past Chair
Anthony Campbell
Greg Higdon
Phillip Bruce Leslie
Dr. C. Nelson Grote
Dr. Phil Neal
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, Vice President
Dr. Larry Ferguson, Vice President
Mr. Wendell A. Followell, Vice President
Dr. Gloria S. McCall, Vice President
Hon. Michael Murray, Vice President
Dr. Rhonda R. Tracy, Chancellor

College Leadership

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

Big Sandy Community and Technical College
Dr. Anthony Newberry
Interim President/CEO

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

Hopkinsville Community College
Dr. Dennis Michaelis
Interim President/CEO

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

Madisonville Community College
Dr. Cynthia Kelley
President/CEO

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

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

Somerset Community College
Dr. Jo Marshall
President/CEO

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

Southeast Kentucky Community and Technical College
Dr. 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.
- Air Conditioning Technology (C, D)
- Appalachian Studies (C)
- Applied Process Technologies (C, A)
- Automotive Technology (C, D)
- Business Communications (C)
- Business Foundations (C)
- Business Studies:
  - Administrative Office Technology (C, D, A)
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
  - Computer Aided Drafting and Design (C, D)
  - Computer and Information Technologies (C, D)
  - Computerized Manufacturing and Machining (C, D)
  - Cosmetology (C, D)
  - Criminal Justice (A, C)
  - Culinary Arts (C, D, A)
  - Dental Assisting (D)
  - Diesel Technology (C, D)

Emergency Medical Services – Paramedic (C, D)
Emergency Medical Technician (C)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Science Technology (A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (A, C, D)
Medical Assisting (C)
Nursing (A)
Pharmacy Technology (C, D)
Practical Nursing (C, D)
Respiratory Care (A)
Surgical Technology (D)
Welding Technology (C, D)

Contact Information

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

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

General Information

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

Administration

President – Dr. Kay Adkins (606) 326-2043
Interim Dean of Technical Education and Workforce – Dr. Keith Brammell (CAO) 606-326-2426
Interim Dean of Arts, Sciences and Transfer Programs – Dr. Nicole Griffith-Green (606) 326-2236
Dean of Business Affairs – Karen Blevins (606) 326-2063
Director of Advancement – Brooke Seasor (606) 326-2092
Dean of Institutional Planning, Research and Effectiveness – Steve Flouhouse (606) 326-2055
Dean of Public Services – John McGlone (606) 326-2400
Dean of Student Success and Enrollment Services –
   Steven Woodburn (606) 326-2077
Associate Dean of Academic Affairs -
   Cris McDavid (606) 326-2003
Associate Dean of Information Technology – Farnoosh Rafiee (606) 326-2069
Registrar/Director of Admissions – Robin Lewis (606) 326-2064
Director of Financial Aid – Adam Abshire (606) 326-2114
Director of Cultural Diversity – Al Baker (606) 326-2422

Faculty
Allen, Joseph D, Instructor, MSN, Chamberlain College of Nursing, 2015
Alley, Alan C, Associate 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
Bogg, Christopher J, Associate 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
Bramwell, Keith, Professor, DMD, University of Kentucky, 1985
Brown, Sara A, Professor, MLS, University of Kentucky, 2003
Bryant, Sheree Nicole, Associate Professor, BUS, Morehead State University, 2010
Cassady, Jeffrey M, Assistant Professor, AAS, Ashland Community and Technical College, 2013
Cavins, Jacqueline L, Professor, BS Morehead State University, 2002
Childress, David C, Professor, Morehead State University, 1985
Conley, Richard R, Professor, MS, University of Kentucky, 1973
Cooksey, Daniel P, Associate Professor, MS, Marshall University, 1979
Cox, Ashley J, Instructor, MS, Western Kentucky University, 2015
Cullum, Randolph, Associate Professor, MA, Marshall University, 1981
Davis, John Mark, Associate Professor, MBA, Morehead State University, 1985
Davis, Virgil K, Professor, MA, Morehead State University, 1986
Flouhouse, Steven D, Professor, MS, Marshall University, 1991
Flouhouse, Steven D, Professor, PhD, Medical University of South Carolina, 1991
Fosson, Woodrow, Associate Professor, Associate of Applied Technology, ACTC, 2001
Fosterwelsh, Wendy, Professor, MFA, Georgia Southern University, 2004
Frailie II, Donald L, Associate Professor, JD, University of Kentucky, 1974
Frye, Bettie E, Professor/Librarian I, MLS, University of South Carolina, 1989
Griffith-Green, Nicole, Professor, EdD, University of the Cumberlands, 2015
Hall, James C, Assistant Professor, MA, University of Louisville, 2014
Hall, Ralfred J, Professor, MS, Morehead State University, 1993
Henderson, Rachel, Associate Professor, MSN, Chamberlain College of Nursing, 2012
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, Assistant Professor, AAS, Ashland Community and Technical College, 2010
Johns, Robin D, Assistant Professor, AAS, Marshall State University, 1987
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, Associate Professor, AAS, Morehead State University, 1994
McCarty, Shannon, Associate Professor, Certificate, Collins Career Center, 1990
McCullough, Willie G, Associate Professor, MA, Marshall University, 1981
McCumber, Jane, Associate Professor, MA, Morehead State University, 1995
McDavid, Cristina C, Professor, MBE, Morehead State University, 1987
McGinnis, Elizabeth, Associate Professor, MSN, University of Phoenix, 2014
McGinnis, Vicki, Assistant Professor, MA University of Kentucky, 1994
McGlone, John K, Associate Professor, MS, Morehead State University, 1994
Meadows, Kayla, Instructor, MS, Eastern Kentucky University, 2015
Mengistu, Ashalew, Associate Professor, PhD, University of Wales College of Medicine, 2002
Merritt, Richard P, Associate Professor, MA, Marshall University, 2011
Mohabian, Hossein, Professor, MA, Marshall University, 1983
Music, Stephen L, Assistant Professor, AAS, Big Sandy Community and Technical College, 2012
O’Pell, Donald Ray, Professor, MS, Marshall University, 1984
Rafiee, Farnoosh, Professor, MA, Marshall University, 1982
Ratliff, Terri Lynn, Associate Professor, BSN, Marshall University, 1993
Riggs, Mark, Associate Professor, MS, Mississippi State University, 2000
Roark, Mary L, Assistant Professor, MSN, Bellarmine University, 2007
Robinson, Natalie, Associate Professor, MSN, Bellarmine University, 2007
Sargent, William K, Assistant Professor, BS, Liberty University, 2005
Shelton, Cynthia, Professor, AAS, AAS, Marshall University, 1992
Shortridge, Mary E, Professor, MA, Morehead State University, 1982
Skidmore, Ashley, Associate Professor, MA, University of Kentucky, 2006
Smith, Mark S, Assistant Professor, BS, Morehead State University, 1999
Smith, Mournie k, Assistant Professor, AAS, Somerset Community College, 2010
Stevens, Tyler B, Instructor, AAS, Ashland Community and Technical College, 2009
Tackett, Michael B, Instructor, 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
Tussey, Laura L, Associate Professor, MA, Marshall University, 2000
Wallace-Vernatter, Susan Y, Assistant Professor, BS, Bellevue University, 2008
Webb, Molly J, Professor, MBA, Bellarmine College, 1982
Wheeler, Thomas, Certification, Ashland State Vocational, 1986
Big Sandy Community and Technical College

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.

- 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 (A)
- Emergency Medical Technician (C)
- Engineering 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 Assistant – Advanced (C)
- Physical Therapist Assistant (A)
- Practical Nursing (C, D)
- Plumbing (C)
- Respiratory Care (C, A)
- Surgical Technology (D, A)
- Surveying & Mapping Technology (C, D, A)
- Truck Driver Training (C)
- Visual Communication
  - Design and Technology (C, D, A)
  - Multimedia (C)
  - Printing (C, D)
- Welding Technology (C, D, A)

Contact Information

Prestonsburg Campus
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) 886-7359
- Financial Aid 1-855-G0-BSCTC (1-855-462-7282)
- Library (606) 889-4834
- President’s Office (606) 886-7371
Mission Statement/Status of Accreditation

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

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

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

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

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Transfer Curricula/Art Related

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

Digital Cinematic Arts (A)
Theatre (A)

Occupational/Technical Curricula

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

Air Conditioning Technology (C, D, A)
Architectural Technology (A)
Automotive Technology (C, D, A)
Biotechnology Laboratory Technician (C, A)
Business Studies:
  Administrative Office Technology (C, D, A)
  Business Administration Systems (C, A)
Medical Information Technology (C, D, A)
Supply Chain Management (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)
Education (A)
Emergency Medical Services – Paramedic (C)
Emergency Medical Technician (C)
Energy Technologies (C)
Engineering and Electronics Technology (C, D, A)
Environmental Science Technology (A)
Environmental Technology (C)
Equine Studies (C, D, A)
Emergency Medical Technician (C)
Filmmaking Script to Screen (C)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Information Technology (C, A)
Human Services (C, A)
Information Management and Design (A)
Integrated Engineering Technology (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  Electrical Technology (C, D, A)
  Industrial Maintenance Technology (C, D, A)
Medical Assisting (C, D, A)
Nuclear Medicine and Molecular Imaging Technology (A)
Nursing (A)
Pharmacy Technology (D)
Practical Nursing (C, D)
Radiography (A)
Real Estate (C)
Respiratory Care (C, A)
Security Management (C)
Surgical Technology (A)
Welding Technology (C, D, A)

Contact Information

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

Lexestown Campus
164 Opportunity Way
Lexington, KY 40511-2623
(859) 246-6200
bluegrass.kctcs.edu
Mission Statement/Status of Accreditation

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

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

Mission Accomplished by Providing:

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

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

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

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

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

General Information

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

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

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

Faculty

Barrow, Ramona, Associate Professor, MS, Strayer University, 2004
Beauchamp, Cheryle, Assistant Professor, MBA, DeVry University, 2008
Biddle, Mary, Assistant Professor, MSN, Walden University, 2012
Blanks, Rhonda, Associate Professor, MSN, University of Phoenix, 2010
Bow, Bobby K, Associate Professor, 21 years teaching experience, 22 years occupational experience
Bratcher, Tracy Rena, Professor, MA, Western Kentucky University, 1998
Brockman, Douglas W, Associate Professor, AAS/AAT, Elizabethtown Technical College, 2000
Brothers, Stephanie, Instructor, BS, University of Louisville, 2011
Brown, Charles J, Professor, MBA, University of Louisville, 1969
Brown, Margaret, Associate Professor, MA, Western Kentucky University, 2007
Brown, Shawn, Associate Professor, MS, Northern Kentucky University, 2014
Cameron, Sandra W, Professor, ME, University of Louisville, 2007
Cantrell, Douglas E, Professor, MA, University of Kentucky, 1985
Cantrell, Lisa A, Professor, MA, Morehead State University, 1986
Chandler-Couins, Lois, Associate Professor, MEd, University of North Carolina, 1997
Chism, John, Associate Professor, AAS, Elizabethtown Community & Technical College, 2002
Pate, Fredericka Susie, Professor, AS, Sullivan University, 1995
Clemens, Jerry L, Professor, MS, Eastern Kentucky University, 2010
Cole, William, Associate Professor MS, Murray State University, 2001
Condill, Sara E, Associate Professor, MAE, Western Kentucky University, 2007
Cooper, Tavakella K, Assistant Professor, MS, Delta State University, 2012
Cordova, Timothy M, Professor, MA, Midwestern State University, 2002
Coulston, Charles, Assistant Professor, MS, University of Kentucky, 2006
Coy, Julie S, Professor, MAE, Western Kentucky University, 1998
Csonka, Thomas Allen, Assistant Professor AAS, Elizabethtown Community and Technical College, 2013
Davis, John D, Associate Professor, PhD, University of Kentucky, 2003
Dile, Beverly, Professor, MA, West Virginia University, 1984
Dixon, Lucinda, Assistant Professor, DVM, Auburn University, 2010
Doty, Brent Morgan, Professor, MA, Western Kentucky University, 2003
Dwyer, 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
Erwin, Jill, Associate Professor, MA, University of Louisville, 2004
Faherty, Erin G, Instructor, MA, Northern Illinois University, 1992
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, Instructor, MA, St. Catharine College, 2014
Haque, Khondaker E, Professor, MA, University of Pittsburgh, 1981
Harper, Pamela, Professor, MA, SCT, Murray State University, 1980
Harris, Robert I, Professor, MA, Western Kentucky University, 1975
Hart, Judy A, Associate Professor, MEd, University of Louisville, 1991
Hawkins, Jacqueline, Associate Professor, MA, Florida State University, 2006
Hazzard, Michael W, Professor, BS, Western Kentucky University, 2007
Henderson, JoNell, Assistant Professor, MBA, Amberton University, 1989
Hendricks, Arthur A, Professor, AAS, Elizabethtown Technical College, 2001
Hicks, McLeah Dyer, Professor, MA, Western Kentucky University, 1994
Higdon, Rebecca, Associate Professor, MS, University of Louisville, 2011
Holman, Richard, Associate Professor, MBA, Georgia State University, 1976
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
Kelle, 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
Lilygren, 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, Assistant Professor, AAS, Elizabethtown Technical College, 2010
MacKellar, Laurie A, Professor/Library I, MLS, University of Kentucky, 1992
Madras, Navin, Associate Professor, MS, Marquette University, 2001
Massaroni, Nolan, Instructor, AAS, Community College of the Air Force, 1995
McFall-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/Library II, MLS, University of Kentucky, 2007
Mihalco, Michael, Assistant Professor, MS, University of Maine, 2007
Moreno, Alberto Jose, Associate Professor, MA, University of Louisville, 2001
Mudd, Susan G, Professor, MSN, Spalding University, 1990
Murley, James I, Professor, PhD, University of Louisville, 2012
Nail, Joe, Professor, BS, University of Louisville, 2000
Nason, Dean W, Associate Professor, MA, Western Kentucky University, 1979
Nusbaum, David D, Associate Professor, MA, University of Montana, 1992
Ottman, Darla Kaye, Instructor, MS, Western Kentucky University, 1991
Owens, Johnny, Professor, MA, Western Kentucky University, 1986
Owens, 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, Lloyd, Associate Professor, AAS, Elizabethtown Technical College, 2003
Poteat, Wanda E, Professor, MA, Western Kentucky University, 1979
Poteet, Gordon D, Associate Professor, AS, Western Kentucky University, 1997
Raizar, Glenn, Associate Professor, AAS, Elizabethtown Community & Technical College, 2005
Ray, Rachel, Associate Professor, MA, Indiana University, 2005
Recid, Joseph, Instructor, AAS, Elizabethtown Community & Technical College, 2008
Richard, Amanda, Associate Professor, MS, Texas A & M University, 2011
Rigney, Mary Alisa, Associate Professor, MA, Western Kentucky University, 2001
Rivera, Jeffrey, Professor, AAS, Elizabethtown Community & Technical College 2005
Roberts, Phillip, Associate Professor, MBA, University of Phoenix, 2011
Schork, James E, Professor, EdD, Northern Illinois University, 1994
Shank, Kevin, Assistant Professor, MA, University of Louisville, 2008
Slone, Anthony, Associate Professor, MBA, Ashland University, 2001
Spalding, Jared C, Professor, BS, Western Kentucky University, 2002
Spratt, Sharon L, Professor, MA, Western Kentucky University, 1989
Sterns, Gary M, Professor, PhD, University of Kentucky, 1990
Sturgeon, Paul D, Professor, BS, University of Louisville, 1993
Sutherland, Marty L, Professor, BS, Southern Illinois University, 1996
Thomas, Dora Kay, Professor, MSN, Western Kentucky University, 2005
Towell, Elizabeth G, Professor, MA, University of Kentucky, 1995
Valora, Joseph Lee, Assistant Professor, AAS, Elizabethtown Community and Technical College, 2013
Waldron, John, Instructor, Ph.D, Texas A & M University, 2002
Walston, Patricia, Associate Professor, MA, University of Louisville, 2000
Wicks, Edward, Assistant Professor, MS, Syracuse University, 2001
Wiles, Matthew W, Assistant Professor, PhD, University of Louisville, 2014
Williams, Barry A, Instructor, MA, Austin Peay State University, 2010
Williams, Richard D, Associate Professor, MA, Western Kentucky University, 1978
Wolf, Joe, Associate Professor, PhD, University of Kentucky, 1992
Wolle, Martha T, Professor, MS, University of Kentucky, 1978
Woodson, Robert, Associate Professor, AAS, Elizabethtown Community & Technical College, 2004

Wright, Micky, Instructor, MS, Western Kentucky University, 2015
Yates, Jennifer, Assistant Professor, MS, Western Kentucky University, 2012
Yates, Rita Jo, Professor, MSSW, University of Louisville, 1995
Young, Cody, Associate Professor, AAS, Bluegrass Community & Technical College, 2004
Zulevich, Louis, Associate Professor, MS, University of Louisville, 2002
Mission Statement/Status of Accreditation
Gateway Community and Technical College provides high quality, affordable, accessible, and inclusive postsecondary education and training resulting in a positive contribution to the economic vitality of the region and enhanced quality of life for all citizens.

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

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

Advanced Manufacturing (C)
- Air Conditioning Technology (C, D)
- Apprenticeship Studies (A)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, D)
- Business Foundations (C)

Business Studies:
- Business Administration Systems (C, D, A)
- Supply Chain Management (C, A)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Diesel Technology (C, D)
- Education (A)
- Emergency Medical Services – Paramedic (C, A)
- Emergency Medical Technician (C)
- Energy Technologies (C, A)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Health Information Technology (C, A)
- Human Services (C, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Kentucky Medication Aide (C)
- Manufacturing Engineering Technology (C, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
- Massage Technology (C, A)
- Medicaid Nurse Aide (C)
- Medical Assisting (C, A)
- Nursing (A)
- Plumbing Technology (C)
- Practical Nursing (D)
- Truck Driver Training (C)
- Welding Technology (C, D, 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)
- (859) 442-1186
- (859) 442-1630
- (859) 442-1159
- (859) 442-1172
- (859) 442-4120
- (859) 442-1150
- (859) 442-4162
- (859) 442-4176
- (859) 442-4129
- (859) 815-7642
- (859) 442-1601
- (859) 442-4114
- (859) 442-1170
- gateway.kctcs.edu
- facebook.com/GatewayCTC
Administration

President
Executive Assistant to the President
Vice President, Academic Affairs
Vice President, Administrative and Business Affairs
Vice President, Workforce Solutions
Vice President, Development
Vice President, Student Development
Associate Vice President, Academic Services
Associate Vice President, Student Development
Dean, Arts and Sciences
Dean, Business, Information Technology and Professional Studies
Dean, Enrollment Services
Dean, Health Professions
Dean, Manufacturing and Engineering Technology
Dean, Transportation Technologies
Acting Registrar

Regional Director of Adult Education/
Assessment/Placement Testing Coordinator
Director, Communications
Director, Counseling Services
Director, Disability Services
Director, Early College Opportunities
Director, External Education Programs
Director, Financial Aid
Director, Fiscal Services
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
Director, Teaching and Learning

Faculty

Albert, Stephanie Winter, Associate Professor, MEd, Northern Kentucky University, 1993
Baugh, Stacey L, Instructor, AAS, Beckfield College, 2009
Bethel, Carol L, Professor, MBA, Xavier University, 1989
Bloomer, Dawn, Assistant Professor, MPH, Walden University, 2009
Blunt, Pretty, Sherry, Assistant 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
Cammi, Jana, Associate Professor, MEd, Northern Kentucky University, 1981
Carrino, Amy, Associate Professor, JD, Salmon P Chase College of Law, 1988
Carroll, John, Instructor, JD, Salmon P Chase College of Law, 2000
Carter, Amber, Associate Professor, BS, Eastern Kentucky University, 2009
Cathcart, John, Associate Professor, MS, Texas A&M University, 2010
Chaney, Susan, Professor, MEd, Northern Kentucky University, 1980
Collier, Samuel E, Associate Professor, BA, Northern Kentucky University, 2013
Comperate, William J, Instructor, MA, Miami University, 2008
Crawford, Charles, Instructor, 3 Years Teaching Experience, 11 Years Occupational Experience, ASE Master Certification
Czirr, Karen, Instructor, MS, St. Joseph University, 1991
Da Silva, Fares, Associate Professor, MA, Indiana State University, 2008
Deary, Margaret S, Instructor, BSN, Northern Kentucky University, 2004
DeBerry, John, Associate Professor, MA, University of Wyoming, 2005
Deweck, Holly Michelle, Professor, PhD, University of Louisville, 2003
Dike, 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
Frazier, Paul, Associate Professor, PhD, University at Albany SUNY, 2001
Fritsch, Denise, Librarian III, MS, University of Kentucky, 1997
Fritz, Diane, Associate Professor, MS, Medical University of Ohio, 1997
Gallagher, Richard, Instructor, BA, Thomas More College, 2014
Gayle, Veronica, Instructor, BS, Eastern Kentucky University, 1971
Grooms, Chad A, Assistant Professor, MBA, Morehead State University, 1998
Guyrani, Marcha, Assistant Professor, MSN, Indiana Wesleyan University, 2004
Hall, Gregory T, Instructor, BS, Northern Kentucky University, 1994
Haysbert, Ronald, Assistant Professor, BTM, DeVry University, 2009
Hon, Yahines, Professor, PhD, Southern Illinois University, 2004
Hughes, Keith, Assistant Professor, PhD, LSU Health Sciences Center, 1994
Jing, Weizhong, Associate Professor, MS, New Jersey Institute of Technology, 1998
Jones, Kenneth, Assistant Professor, 12 Years Teaching Experience, 12 Years Occupational Experience, ASE Master Certification
Karlage, Martha, Instructor, BS, Eastern Kentucky University, 1986
Law, Chelsea, Assistant Professor, MS, Clemson University, 2012
Laws, Sarah, Instructor, AAS, Gateway Community and Technical College, 2008
Lutes, Paul Alan, Instructor, BS, Northern Kentucky University, 1995
Lybrook, Adam C, Instructor, Diploma, Hibbing Community College, 2000
Mason, Meredith, Instructor, MSW, University of Michigan, 2011, MS, University of Cincinnati, 2015
Mathew, George, Professor, PhD, University of Kentucky, 1994
McKenna, Kerri, Associate Professor, EdD, Northern Kentucky University, 2011
Mitchell, John W, Instructor, 13 Years Occupational Experience, Class A Commercial Driver’s License
 Müller, Antoinette, Assistant Professor, Diploma, Gateway Community and Technical College, 2015
Myka, Jennifer, Assistant 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
Mustendorf, Audrey, Instructor, MA, Northern Kentucky University, 2014
Owsley, Adarrell, Instructor, MEd, Indiana Wesleyan University, 2012
Popple, Elizabeth, Assistant Professor, BA, College of Mount St. Joseph, 1993
Praiwat, Angela, Assistant Professor, MBA, Xavier University, 2009
Ramanavake, Deepshanathana, Associate Professor, MS, Morehead State University, 2008
Reynolds, Jon, Instructor, BA, Centre College, 1995
Rice, Barbara, Assistant Professor, MBA, West Virginia University, 1997
Rickels, Christopher, Instructor, MA, The University of Toledo, 2013
Rickert, Patrick E, Associate Professor, MS, University of Wisconsin, 2000
Riley, Michael P, Instructor, MBA, Morehead State University, 2005
Riley, Michael K, Instructor, AAS, Morehead State University, 1983
Rosenberg, Lisa, Instructor, BA, York College of Pennsylvania, 1988
Ruebusch Brown, Michelle E, MS, University of Cincinnati, 2016
Russell, Margaret, Instructor, MEd, Xavier University, 1990
Santos, Susan, Associate Professor, PhD, Walden University, 2004
Schaefer, David, Assistant Professor, MA, Northern Kentucky University, 2013
Schilling, Judith C, Assistant Professor, MEd, Northern Kentucky University, 1987
Schultz, Kimberly, Instructor, Certificate, Gateway Community and Technical College, 2011
Selzer, Thomas J, Instructor, Diploma, Pinellas Vocational Technical Institute, 1986
Sisterhenn, Thomas M, Instructor, MS, University of Cincinnati, 2007
Settlemento, Beth, Associate Professor, ME, University of Cincinnati, 2008
Siekmann Hall, Stacey L, Assistant Professor, MS, University of Cincinnati, 2008
Smith, Jeffery, Instructor, Certificate, Sinclair Community College, 2003
Smith, Sarah, Assistant Professor, MA, College of Mount St. Joseph, 2008
Stallkamp, Melani, Associate Professor, MNS, University of Cincinnati, 2009
Stroud, Reva, Instructor, BS, Northern Kentucky University, 2010
Vallette, Natasha, Assistant Professor, MA, Bowling Green State University, 2012
Warburton, Charles, Associate Professor, MA, University of Cincinnati, 1998
Ward, Mickey, Instructor, MA, University of Cincinnati, 1998
Wright, Dee, Associate Professor, 16 Years Teaching Experience, 26 Years Occupational Experience
Mission Statement/Status of Accreditation
Hazard Community and Technical College HCTC is a comprehensive, public community and technical college that empowers diverse learners, building self-confidence and leadership capacity for lifelong personal success and community enhancement.

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

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

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

Academic Programs

Transfer Curricula
associate in Arts
associate in Science

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

Visual Art (A)

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

Agricultural Technology (C)
Air Conditioning Technology (C, D)
Auto Body/Collision Repair Technology (C, D)
Automotive Technology (C, D, A)
Broadband Technology (C)
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, A)

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
Administration

President/CEO
Dr. Jennifer Lindon
Delcie Combs

Assistant to the President
Germaine Shaffer
Connie Watts
Donna Roark
Vickie Combs
Evelyn Wood
Jackie Hall

Interim Provost/Vice President of Academic and Student Services
Dr. Beth Pennington

Chief Business Services Officer
Dr. Ella Strong

Chief Information Officer
Evelyn Wood

Senior Director of Human Resources
Jackie Hall

Public Relations Coordinator
Leila Sandlin Smith

Dean of Business Services
Tony Back

Dean of Computer and Online Technologies
Dr. Ella Strong

Dean of Allied Health Science Technologies
Vacant

Dean of General Education
Leila Sandlin Smith

Dean of Occupational Technologies
Tony Back

Dean of Retention Services
Dr. Beth Pennington

Faculty

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
Bates, Lauren Ann, Associate Professor, DNP, Western Kentucky University, 2017

Begley, Dan H, Professor, MBA, University of Kentucky, 1998
Booth, Jenna L, Associate Professor, DNP, Western Kentucky University, 2015
Bowling, Randy L, Assistant Professor, 46 year Teaching Experience, 28 years Occupational Experience
Bowling, Tracy L, Professor, DPT, University of Kentucky, 2010
Branson, Jerry M, Professor, MS, University of Kentucky, 2011
Bryant, Randall K, Professor, MA, Morehead State University, 2000
Caldwell, Venita Carol, Professor, MA, Union College, 1980
Caudill, Jimmy D, Professor, Diploma, Hazard Technical College, 1987
Combs, Donna R, Professor, MSN, University of Kentucky, 1986
Combs, Jerry M, Professor, MA, Morehead State University, 2011
Cone, CS Jennifer, Assistant Professor, AAS, Hazard Community and Technical College, 2009
Couch, Melissa, BS, Morehead State University, 2012
Cravens, Thomas L, Assistant Professor, MS, Morehead State University, 1989
Currie, Paul B, Associate Professor, DVM, University of Kentucky, 2000
Davidson, Gwenowlin, Assistant Professor, MS, Morehead State University, 2014
Davis, Tammy A, Instructor, AAS, Somerset Community College, 2013
Dunn, Timothy J, Professor, MS, University of Kentucky, 1989
Flannery, Madeline K, Professor, MA, Columbia University, 1986
Flynn, Michael, Assistant Professor MFA, University of Montana, 2012
Francis, Sam W, Associate Professor, PhD, University of Kentucky, 1998
Frazier, David L, Professor, MBA, Morehead State University, 1998
Frazier, Misty, Instructor, MSW, University of Kentucky, 2011
Fugate, Renee Tabor, Professor, MS, University of Kentucky, 1993
Gibson, Diane A, Assistant Professor, MS, Louisiana Tech University, 2009
Globig, Sabine A, Professor, MS, Rutgers University, 1988
Hagans-Shepherd, Ludrenia Sue, Professor, MSN, Eastern Kentucky University, 2000
Herald, Patricia Ann, Professor, DSN, University of Alabama, 1993
Holl, Richard E, Professor, PhD, University of Kentucky, 1996
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
Ingram, Danny M, Professor, BS, Eastern Kentucky University, 2008
Johnson, Larisa, Instructor, MSN, 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, Assistant Professor, 26 years Occupational Experience
Lindon, Jennifer A, Professor, PhD, Mississippi State University, 2010
Lindon, Jennifer A, Professor, PhD, University of Kentucky, 2016
Lokero, Scott C, Professor, MA, University of Kentucky, 1992
Lutes, Jennifer, Instructor, MA, Morehead State University, 2010
Maggard, Wilma, Assistant Professor, Certificate, Hazard Community and Technical College, 2003
Malepeai, Alexis, Assistant Professor, BA, Brown University, 2003
Martin, Christina R, Associate Professor, MSN, Eastern Kentucky University, 2009
Martin, Joanna H, Associate Professor, Diploma, Cumberland Valley Technical College, 1999
May, Scott R, Professor, MS, Indiana State University, 1990
Mellin, Rex, Lecturer, MS, Arkansas State University, 2001
Mobelini, Deronda C, Professor, Ed. D., University of Kentucky, 2012
Moon, Randall B, Professor, PhD, University of California at Riverside, 2000
Mullins, Denessa, Assistant Professor, BA, Ashford University, 2010
Napier, Anna S, Professor, MSW, University of Denver, 1991
Napier, Samuel Scott, Assistant Professor, 19 years Teaching Experience, 19 years Occupational Experience
Neace, Shaun, Instructor, AAS, Hazard Community and Technical College, 2003
Neace, Thomas D, Professor, MA, Eastern Kentucky University, 1996
Osborne, Norman Dean, Instructor, 33 years Teaching Experience, 29 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 L, Professor, MBA, Morehead State University, 1985
Sasser, Lynn D, Professor, MS, Eastern Kentucky University, 1972
Shaffer, Germaine B, Professor, JD, University of Louisville, 1990
Sixton, Rachel Juanita, Associate Professor, Diploma, East Kentucky Beauty College, 1998
Sipple, Savannah, Assistant Professor, MFA, Spalding University, 2008
Smith, Leila Sandlin, Professor, MBE, Morehead State University, 1987
Smith, Penny, MA, University of Kentucky, 1992
Smith, Walter L, Assistant Professor, MS, University of Cincinnati, 2007
Spencer-Barnes, Amanda G, Associate Professor, MA, Morehead State University, 2007
Stamper, Vera Dawn, Associate Professor, DPT, University of Kentucky, 2011
Strickland, William M, Professor, MA, Morehead State University, 1981
Strong, Ella J, Professor, Ed. D., University of Kentucky, 2011
Swofford, Bryan, Assistant Professor, BA, Alice Lloyd College, 2000
Terry, Homer, Professor, MS, Eastern Kentucky University, 2004
Turner, Chestina, Associate Professor, MA, Eastern Kentucky University, 2008
Turner, Tina, Instructor, BSN, Indiana Wesleyan, 2016
Vanee, Delores S, Professor, MBE, Morehead State University, 1997
Vergne, Stephanie L, Professor, MA, Morehead State University, 2007
Whitaker, Jimmy D, Professor, PhD, Midwestern State University, 2005
Williams, Jenny D, Professor, MA, University of Kentucky, 1992
Wireman, April Graham, Instructor, MA, Eastern Kentucky University, 2005
Wood, Jeremy R, Professor, MS, University of Tennessee, 1993

Veterans Affairs
(606) 487-3077

Workforce Solutions
(606) 487-3059

Website
(606) 487-3287
hazard.kctcs.edu
Henderson Community College

Mission Statement/Status of Accreditation

The Mission of Henderson Community College: To enhance the quality of life and employability of the citizens of our community by serving as the primary provider of:

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

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

General Information

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

Administration

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

Faculty

Becker, Kara, Associate Professor, ME, Western Kentucky University, 2003
Bennett, Brenda, Associate Professor, MS, Western Kentucky University, 1995
Blackburn, Catherine, Professor, MFA, East Carolina University, 1993
Bullock, Kimberly, Assistant Professor, MSN, University of Southern Indiana, 2015
Burnett, Terri, Instructor, MSN, University of Southern Indiana, 2013
Burton, Sharon, Professor, MA, Ohio University, 1983
Chappell, Michelle, Associate Professor, MS, Morehead State University, 2011
Crick, Sarah, Instructor, MNE, University of Southern Indiana, 2015
Dean, Kim, Professor, MS, Western Kentucky University, 1986
Donahoo, Lori, Assistant Professor, DNP, Western Kentucky University, 2017
Drumet, Debra, Instructor, BSN, Chamberlain College of Nursing, 2015
Fritts, David, Professor, PhD, Ohio University, 2012
Fuchs, Pennae, Professor, MSN, University of Texas at Austin, 1974
Furbush, Frank, Associate Professor, MS, Southern Connecticut College, 1982
Gary, William, Professor, MA, Florida State University, 1991
Griffis, Katie, Associate Professor, MA, Eastern Illinois University, 2007
Hawa, Randa, Professor, MS, University of Evansville, 1991
Helfrich, Jennifer, Instructor, MSM, Oakland City University, 2003
Hunt, Cathy, Professor, MS, University of Kentucky, 1980
Jones, Mei, Assistant Professor, MS, University of Indiana, 2006
Joy, Brian, Associate Professor, MBA, National University, 2000
Joy, Lilia, Professor, MA, Murray State University, 2003, MFA, Murray State University, 2015
Kasenow, Paul, Professor, MA, Kent State University, 1987
Kelley, Melissa, Instructor, MSN, University of Phoenix, 2015

Contact Information

Henderson Community College
2660 South Green Street
Henderson KY 42420
(270) 827-1867
Toll free: 800-696-9958
Henderson.kctcs.edu
Knecht, Michael, Professor, MLS, Emporia State University, 1992, MBA, Western Kentucky University, 1999
Macke, Kaelyn, Instructor, MSN, University of Southern Indiana, 2017
Malby, Lorie, Professor, MA, Ohio University, 1983
Marquess, Alicia, Instructor, MSN, Kaplan University, 2014
Mattingly, Carole, Associate Professor, DNP, Western Kentucky University, 2015
McCarty, Steven, Professor, MA, Western Kentucky University, 1991
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
Strawn, Anthony, Professor, MA, University of Evansville, 1979
Taylor, Scott, Associate Professor, MS, Murray State University, 2010
Threlkeld, Lori, Associate Professor, MS, Murray State University, 1992
Wells, Rebecca, Professor, MS, Eastern Kentucky University, 1985
Winstead, Laura, Professor, MS, Murray State University, 1996
Mission Statement/Status of Accreditation
Hopkinsville Community College is an inclusive, student-centered educational institution that provides accessible, innovative, and comprehensive learning opportunities within a supportive community that encourages academic excellence. The college sustains strong educational, community, military, agricultural, and economic partnerships to improve the quality of life in the southern Pennyrile region and Fort Campbell 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)
Agricultural Technology (C, D, A)
Automotive Technology (C)
Business Studies:
Administrative Office Technology (C, A)
Business Administration Systems (C, D, A)
Medical Information Technology (C, D, A)
Supply Chain Management (C)

General Information
(270) 707-3700

Admissions 1-855-22GO-HCC (1-855-224-6422)
Larissa Horn (270) 707-3812
Adult Education (270) 707-3926
Gary Dawson Advising Center (270) 707-3820
Deloria Scott Testing Center (270) 707-3820
Martha Metcalfe Business Office 1-855-22GO-HCC (1-855-224-6422)
Matthew Davenport Career and Transfer Services (270) 707-3729
Kanya Allen Workforce Solutions (270) 707-3827
Carol Kirves (270) 707-3750

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

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.
Disability Services  
  (270) 707-3811

Dr. Jason Warren

Distance Learning Support  
  (270) 707-3903

Vacant

1-855-22GO-HCC (1-855-224-6422)

Financial Aid  
  (270) 707-3833

Janet Gunther

Human Resources  
  (270) 707-3722

Yvonne Glasman

International Student Services  
  (270) 707-3801

Dr. Jason Warren

Library  
  (270) 707-3762

Ann Nichols

Public Relations and Marketing  
  (270) 707-3732

Rena Young

Records/Registrar  
  (270) 707-3811

Tiffanie Witt

Manager of External Education Programs-Rotary Scholars/Dual Credit  
  (270) 707-3809

Rachel Westerner

Transfer Information Liaison  
  (270) 707-3827

Kanya Allen

Veterans Affairs

Angie Goode

Information Technology  
  (270) 707-3957

Tony Nelson

Fort Campbell Campus  
  (270) 707-3958

Alisha Lee

Administration

President/CEO  
  Dr. Dennis Michaelis, Interim

Chief Academic Affairs Officer  
  Dr. Alissa Young

Chief Student Affairs Officer  
  Dr. Jason Warren

Chief Business Affairs Officer  
  Mr. Jeff Horton

Chief of Community, Workforce and Economic Development

Chief of Institutional Advancement

Fort Campbell Campus Director

Division of Allied Health  
  Mrs. Carol Kirves

Mrs. Yvette Y. Eastham

Division of Allied Health

Mrs. Elizabeth Beverly

Division of Liberal Arts & Social Sciences  
  Dr. Ken Casey

Mr. Ted Wilson

Division of Mathematics and Sciences

Division of Nursing  
  Mrs. Peggy Bozarth

Mrs. Allisha Lee

Division of Professional and Technical Studies  
  Mr. Greg Bridgeman

Faculty

Akpom, 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

Bain, Scott Alexander, Associate Professor, MS, University of Illinois at Urbana-Champaign, 2004

Beverly, Elizabeth A, Associate Professor, MS, University of Louisville, 2009

Bozarth, Peggy Irene, Professor, MSN, Murray State University, 1997

Braxton-Brown, Justin Dale, Associate Professor, MA, Ohio University, 2002

Bridgeman, Gregory W, Professor, MA, Webster University, 1984

Burrell, Jahrel Victor, Assistant Professor, PhD, Kansas State University, 2009

Butler, Velma Nicole, Instructor, AAS, KCTCS - Madisonville Community College, 2010

Carlisle, Thomas T, Professor, MA, Murray State University, 1994

Casey, Kenneth Stewart, Professor, PhD, Vanderbilt University, 1991

Cawood, Marketa Liska, Professor, MA, State University of New Jersey Rutgers, 2007

Chester, Caitlin, Instructor, MA, Murray State University, 2010

Cummins, Christopher Mark, Instructor, MS, The University of Tennessee Knoxville, 2013

Davis, John P, Assistant Professor, PhD, University of Kentucky, 2012

Dougherty, Karen, Associate Professor, M.D., University of Louisville School of Medicine, 1979

Dougherty, Melissa, Instructor, MS, Miami University, 2016

Evans, Audrey D, Professor, EDS, Austin Peay State University, 1998

Evans, Kimmel Kirk, Associate Professor, MAS, Embry-Riddle Aeronautical University, 1996, MA, Central Michigan University, 1980

Felton, Kevin E, Professor, EdD, Tennessee State University, 1986

Gunn, Amanda Joy, Associate Professor, MSN, Western Kentucky University, 2014

Higdon, Terri, Associate Professor, MSN, Murray State University, 2013

Howard, YeVette, Instructor, Ed.D., The University of Georgia, 1993

Hunter, James T, Professor, MS, University of Kentucky, 1984

Jackman, Sarah F, Associate Professor, ME, University of Texas at El Paso, 1980, MET, University of Texas at El Paso, 1992

Laffoon-Jackson, Julia, Associate Professor, MA, Western Kentucky University, 1981

Lambruno, Joyce, Associate Professor, MSN, Murray State University, 2010

Larkin, Vernell 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, CFPiHM and CFPiHT, 2001

McClure, Michael W, Professor, MS, Murray State University, 1981

McCormack, Sherry Lynn, Associate Professor, MS, Murray State University, 2009

McGowan, Tonya, Instructor, AAS, KCTCS - Madisonville Community College, 2005

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

Piper, Susan Evangline, Assistant Professor, MSN, Western Kentucky University, 2010

Pniekosi, Tommie W, Professor, MSN, University of Evansville, 1977

Prudhomme, Bonny B, Professor, MS, Western Kentucky University, 1998, MA, Ball State University, 1976, MS, Loyola University, 2009

Ralph, Brett E, Professor, MFA, University of Massachusetts, 1993

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

Sauermann, Amanda C, Professor, MA, Gannon University, 1993

Sauermann, Bernd Eberhard, Professor, MFA, McNeese State, 1993, MA, McNeese State, 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

Shah, Anne L, Associate Professor, MA, Austin Peay State University, 1983

Stewart, Sharon K, Assistant Professor, MSN, Walden University, 2008

Stone, Abbey L, Instructor, BS, Indiana Wesleyan University, 2013

Wilkinson, Daniel M, Professor, MM, Western Kentucky University, 1984

Wilson, Ted H, Professor, MA, Baylor University, 1983

Windsor, Dayle L, Associate Professor, MA, Murray State University, 1971

Young, Alissa L, Professor, EdD, University of Kentucky, 2013, MS, Murray State University, 1993

Zieman, Stuart David, Assistant Professor, AAS, KCTCS – Hopkinsville Community College, 2006

Partney, Jeffrey A, Associate Professor, Certificate, National Occupational Competency Testing Institute, 1999

Pendleton, Arthur D, Professor, MBA, Western Kentucky University, 2003

Piper, Susan Evangline, Assistant Professor, MSN, Western Kentucky University, 2010

Pniekosi, Tommie W, Professor, MSN, University of Evansville, 1977

Prudhomme, Bonny B, Professor, MS, Western Kentucky University, 1998, MA, Ball State University, 1976, MS, Loyola University, 2009

Ralph, Brett E, Professor, MFA, University of Massachusetts, 1993

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

Sauermann, Amanda C, Professor, MA, Gannon University, 1993

Sauermann, Bernd Eberhard, Professor, MFA, McNeese State, 1993, MA, McNeese State, 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

Shah, Anne L, Associate Professor, MA, Austin Peay State University, 1983

Stewart, Sharon K, Assistant Professor, MSN, Walden University, 2008

Stone, Abbey L, Instructor, BS, Indiana Wesleyan University, 2013

Wilkinson, Daniel M, Professor, MM, Western Kentucky University, 1984

Wilson, Ted H, Professor, MA, Baylor University, 1983

Windsor, Dayle L, Associate Professor, MA, Murray State University, 1971

Young, Alissa L, Professor, EdD, University of Kentucky, 2013, MS, Murray State University, 1993

Zieman, Stuart David, Assistant Professor, AAS, KCTCS – Hopkinsville Community College, 2006
Mission Statement/Status of Accreditation

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

Mission Goals

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

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

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

African American Studies (C)
Air Conditioning Technology (C, D)
Applied Process Technologies (C, D, A)
Apprenticeship Studies (A)

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

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

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

Southwest Campus
1000 Community College Drive
Louisville, KY 40227
(502) 213-5333

Carrollton Campus
1607 Hwy 227
Carrollton, KY 41008
(502) 732-4846 or (800) 853-3887

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

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

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

Library – Bullitt County
(502) 213-7911
Library – Downtown
(502) 213-2154
Library – Jefferson Technical
(502) 213-4100
Library – Southwest
(502) 213-7222
Library – Carrollton
(502) 732-4846
Library – Shelby County
(502) 633-3618
Marketing and Communications
(502) 213-2400
Records
(502) 213-4000
Transfer Information Liaison
Veterans Affairs
(502) 213-4000
(502) 213-2139

Administration

President
Dr. Ty Handy

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

Dean of General Studies – Downtown Campus
Dr. Randall Davis

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

Dean of Technical Education
Dr. Telly Sellers

Dean of Student Affairs and Enrollment Management
Dr. Laura Smith

Dean of System Initiatives
Vincent DiNoto Jr.

Director of Carrollton Campus
Susan Carlisle

Academic Coordinator – Shelby Campus
Maia Langley

Academic Coordinator – Bullitt Campus
Kim Boggs

Academic Coordinator – Southwest Campus
Jessica Duff

Director of Human Resources
Toni E. Whalen

Director of Diversity
Danielle Simms

Dean of Workforce Solutions
Dr. Nikki Cobb

Director of Institutional Effectiveness
Dr. Jo Zausch

Division of Arts and Humanities
Marlisa Austin

Division of Business and Advanced Technology
Dr. Bruce Jose

Division of Social and Behavioral Sciences
Catherine Wright

Division of Allied Health
Kara Schott

Division of Nursing
Sonia Rudolph

Division of Mathematics
Drew Wilkerson

Division of Natural Science
Kaya Muller

Division of Trade and Industry
Grant Gamble

Director of Library Services
Sherree Williams

General Information
(502) 213-5333

Admissions
(502) 213-4000

Bursar’s Office
1-855-2GO-JCTC (1-855-246-5282)

Business Office
(502) 213-2103

Center for Community Workforce
and Economic Development
(502) 213-2223

Disability Services
(502) 213-2449

Diversity
(502) 213-2268

Financial Aid
1-855-2GO-JCTC (1-855-246-5282)

Human Resources
(502) 213-2118

Faculty

Ackerman, Jennifer, Associate Professor, MA, University of Louisville, 1993

Adams, James, Associate Professor, MHA, University of Phoenix, 2007

Adams, Jill, Associate Professor, MA, East Carolina University, 1998

Arterburn, Kay Poinsette, Professor, MAT, University of Louisville, 1987

Asamoah, Samuel R, Associate Professor, MBA, Pittsburg State University, 1989

Austin, Marlisa R, Professor, MA, Union College, 1999

Bartley, Brandon, Professor, MS, Virginia Tech, 2003

Betts, Autumn, Associate Professor, MSW, Southern Baptist Theological Seminary, 1996

Bloyd, Deborah, Associate Professor, MSW, Southern Baptist Theological Seminary, 1984

Boswell, Melanie A, Professor, MS, Florida State University, 2000

Changaris, Linh T., Associate Professor, MS, Western Kentucky University, 2004

Cheatham, Cathy A, Instructor, University of Louisville, 2008

Chelf, Eva, Instructor, MAT, University of Louisville, 2008

Cooper, David L, Professor, MA, Atlanta University, 1975

Couch, Kristi, Instructor, MA, Indiana University, 2000

Coulter, Jeffrey, Instructor, AAS, Jefferson Community and Technical College, 2006

Cummins, Deloris J, Associate Professor, DPT, University of Montana, 2012

Cummins, Marc L, Associate Professor, MEd, University of Louisville, 1976

Davis, Helen M, Professor, MBA, University of Kentucky, 1976
Davis, Randall J, Professor, PhD, University of Wisconsin Milwaukee, 1989
Dearing, Laura A, Professor, MFA, University of Memphis, 1998
Deele, Nina R, Professor, MSLS, University of Kentucky, 1994
DiNoto Jr, Vincent A, Professor, MA, Indiana State University, 1979
DiPaula, Stephen, Professor, BS, Johnson & Wales University, 1994
Early, Glen A, Professor, MS, University of Louisville, 1974
Ecker, David P, Associate Professor, PhD, University of Kentucky, 1991
Edgar, Brenda, Associate Professor, MA, University of Pittsburgh, 1997
Eichholz, Lisa A, Associate Professor, MLS, Syracuse University, 1992
Eiden, Laurie A, Professor, MS, University of Louisville, 2003
Elmes, Brandon, Assistant Professor, MEng, University of Louisville, 2011
Estes, Michael, Instructor, MFA, University of Notre Dame, 2005
Eubanks, Sandra L, Professor, PhD, Bowling Green State University, 1991
Frame, Stephen, Instructor, AAS, Santa Fe College
Florence, Ana R, Associate Professor, MA, University of Louisville, 2001
Florence, Paul A, Associate Professor, MS, University of Louisville, 1995
Gabyon, Maria, Associate Professor, MBA, Morehead State University, 1993
Gamble, Grant, Associate Professor, BST, Pittsburgh State University, 1995
Gibson, Maureen, Associate Professor, MA, Western Kentucky University, 1990
Gittings, Jennie M, Associate Professor, MSN, University of Louisville, 1992
Goldsky, Luanne M, Professor, MS, North Texas State University, 1983
Gonzalez, Orlando, Associate Professor, MS, University of Cincinnati, 2001
Grancy, Christopher M, Professor, MA, University of Virginia, 1990
Gray, Denise A, Professor, EdD, Spalding University, 1997
Gummer, Rhonda D, Professor, MSW, University of Louisville, 2002
Hall, Jill W, Professor, PhD, University of Kentucky, 1988
Hanson, Richard H, Associate Professor, PhD, University of Kentucky, 1996
Hatfield, Todd, Instructor, 20 years teaching experience, 25 years occupational experience
Higgins, Linda C, Professor, MEd, University of Louisville, 1996
Howard, Chad, Associate Professor, MS, University of Kentucky, 2003
Hubrich, Charlotte Hammett, Associate Professor, MFA, University of Louisville, 1987
Jackson, Mary B, Professor, MA, Western Kentucky University, 1990
Jacob, Sherry E, Associate Professor, MBA, Webster University, 2002
James, Debra K, Professor, MSN, University of Evansville, 1985
Johnson, Gerald R, Professor, MS, Eastern Kentucky University, 1989
Johnson, Rafe A, Professor/Librarian I, MLSL, University of Kentucky, 1990
Jones, Melvin D, Professor, MM, Western Kentucky University, 1979
Jost, Bruce F, Professor, PhD, University of Louisville, 2008
Karcher, Mickie, Professor, MA, Western Kentucky University, 1993
King, Dallas, Assistant Professor, AAS, Jefferson Community and Technical College, 2015
Kuhman, Mary B, Associate Professor, EdD, Nova Southeastern University, 2007
Kutnicki, Faith H, Associate Professor, MS, University of Kentucky, 1972
Laflerty, Kaye, Professor, PhD, University of Louisville, 2015
Langness, Betsy, Professor, MEd, University of Louisville, 1995
Larkin, Pamela B, Professor, MAT, University of Louisville, 1992
Larson, Douglas, Associate Professor, MS, University of Louisville, 1998
Lawrence, Lindsey J, Professor, BGS, Indiana University-Southeast, 2001
Leasor, James, Assistant Professor, AAS, Elizabethtown Community and Technical College, 2015
Lee, Duane E, Instructor, MPA, Kentuck State University, 2008
Leonard, Mona F, Professor, MA, Howard University, 1989
Leslie, Tony, Assistant Professor, MEd, Western Kentucky University, 1989
Limeberry, John W, Associate Professor, MA, Ball State University, 1989
Lites, William W, Professor, PhD, Southern Baptist Theological Seminary, 1991
Lohman, Linda C, Associate Professor, MA, Spalding University, 1988
Long, John P, Professor, MS, University of Kentucky, 1988
Lotz, Anne, Professor, MA, Kent State University, 1999
Lowrey, Kathryn E, Associate Professor, PhD, University of Louisville, 2010
Luce, Elizabeth M, Associate Professor, EdS, Spalding University, 2000
Lutz, Terry W, Professor, MFA, University of Kentucky, 1984
Lyall, Victoria, Associate Professor, MA, University of Louisville, 2000
Malone, Mary E, Professor, MA, MSN Spalding University, 1982, 1987
Mangum, David, Associate Professor, MA, Murray State University, 2006
Matheny, Meg, Professor, MA, University of Kentucky, 1999
Mattingly, Diane, Assistant Professor, MA, Western Kentucky University, 2011
Mattingly Jr, Robert A, Professor, MS, University of Louisville, 1990
McNeill, Marilyn D, Professor, MSN, University of Louisville, 1990
Meeks, Susan L, Associate Professor, MA, Webster University, 1998
Miller, Darla Faye, Associate Professor, MEd, University of Louisville, 2004
Miller, Donna R, Assistant Professor, MA, University of Louisville, 2007
Minnis, Angela, Associate Professor, MSBC, Spalding University, 2008
Mohr, April L, Professor, MA, Florida Atlantic University, 1990
Mollette, Nancy R, Associate Professor, MLS, University of Kentucky, 1980
Motes, John B, Professor, MFA, University of Tennessee, 1987
Muller, Kay, Associate Professor, MS, Purdue University, 1999
Norfleet, Ronn, Associate Professor, MDiv, Southern Baptist Theological Seminary, 1989
Nowicke, Robert G, Instructor, MA, Western Kentucky University, 1978
O’Brien, Cheryl A, Professor, MEd, University of Louisville, 1993
O’Brien, Nicholas B, Instructor, AAS, Jefferson Community and Technical College, 2000
Olsen, Bobby G, Professor, MAT, Northern Kentucky State University, 1978
Pack, Don, Professor, EdD, University of Louisville, 1999
Parr, Daniel, Associate Professor, EdD, University of Louisville, 2000
Peters, Jane, Associate Professor, PhD, University of Kentucky, 2005
Phillips, Greg, Assistant Professor, AAS, Jefferson Community and Technical College, 2012
Pillitteri, Gerald J, Assistant Professor, AAS, Jefferson Community & Technical College, 2012
Pitchford, Jennifer, Assistant Professor, BS, University of Evansville, 1997
Prather, Mark C, Associate Professor, BA, Indiana University, 1989
Prueitt, Stephen R, Professor, PhD, University of Louisville, 1997
Purvis, Charles D, Professor, MS, State University of New York, 1989
Rasras, Awad R, Associate Professor, MA, University of Kansas, 1985
Reisner, Caroline, Assistant Professor, MS, Eastern Kentucky University, 2007
Repper, Frank, Associate Professor, MM, Eastern Kentucky University, 1983
Riedel, Donna D, Associate Professor, MS, University of Massachusetts, 1987
Riedling, Robert L, Professor, MS, University of Louisville, 1997
Rodgers, Claud D, Associate Professor, MA, University of Louisville, 1968
Rodki, Peter A, Professor, MS, Eastern Kentucky University, 1992
Rudolph, Sonia R, Associate Professor, MSN, Spalding University, 2003
Savels, Constance, Instructor, MPH, Ohio State University, 2003
Schottler, Kara, Assistant Professor, MA, University of Louisville, 2012
Sellers, Telly R, Professor, EdD, Spalding University, 2006
Sexton, Gerald, Instructor, BT, Jacksonville State University, 1990
Sheilds, Kevin Blane, Instructor, BS, Kentucky Wesleyan College, 2013
Smithy, Pamela, Associate Professor, MS, Quinimipiac University, 2011
Smook, Stephen, Instructor, AAS, Jefferson Community and Technical College, 2014
Spears, Sandra L, Professor, MS, Western Kentucky University, 1974
Sprinkle, Amy C, Professor, MA, Western Kentucky University, 1986
Stevens, Becky, Professor, MAE, Western Kentucky University, 2008
Stewart, Amelia, Professor, PhD, Ohio University, 1987
Stewart, James H, Associate Professor, MS, Western Kentucky University, 1991
Taylor, Stacy, Associate Professor, MA, University of Louisville, 1999
Terhune, Jerry D, Professor, PhD, University of Minnesota, 1976
Thomas, Leonard, Instructor, MA, University of Louisville, 2010
Tomci Jr., Dontoe A, Associate Professor, MA, Eastern Illinois University, 1996
Varner, Katy L, Professor, EdD, University of Louisville, 2000
Vogel, David M, Associate Professor, PhD, University of Louisville, 2002
Ward, John, Associate Professor, MBA, University of Louisville, 2000
Watters, Keith B, Instructor, Certification in FAA Airframe and Powerplant
Wechter, Bree, Associate Professor, MA, Eastern Illinois University, 2002
Weldon, Betty E, Professor, MA, University of Louisville, 1986
Wheat, Valerie J, Associate Professor, PhD, University of Cincinnati College of Medicine, 2001
White, Deborah C, Professor, MSN, University of Kentucky, 1982
Wilburn, Mark S, Professor, PhD, Ohio University, 1987
Wiles, Thomas S, Professor, MS, University of Louisville, 1990
Wilkerson, Andrew, Assistant Professor, MS, University of Nebraska, 2010
Williams, Sherree Huber, Professor, MSLS, University of Kentucky, 1981
Wright, Catherine, Professor, Marshall University, 1988
Wright, Mark, Professor, MEng, University of Louisville, 1992
Yocom, Heather L, Assistant Professor, MA, Northern Kentucky University, 2010
Zausch, Jo Fruts, Professor, EdD, Spalding University, 1996
Correctional Sites

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

Eddyville (KSP)*
Belt, Danny, Instructor, Master Electrician License
Phillips, Stephen, Associate Professor, MS, Murray State University, 2003
Renn, Robert D, Instructor, MS, University of Kentucky, 1986

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

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

Pewee Valley (KCW)*

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.

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Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

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)
- Agricultural Technology (C, D, A)
- Air Conditioning 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 (A)
  - Criminal Justice (C, A)
  - Emergency Medical Services – Paramedic (C, A)
  - Emergency Medical Technician (C)
  - Energy Management (C, D, A)
  - Engineering Related – Project Lead the Way (PLTW) (C)
  - Fire/Rescue Science Technology (C, D, A)
  - General Occupational/Technical Studies (A)
  - Healthcare Technology Management (C, A)
  - Health Science Technology (A)
  - Human Services (C, A)
  - Interdisciplinary Early Childhood Education (C, D, A)
  - Manufacturing Industrial Technology:
    - Electrical Technology (C, D, A)
    - Medical Laboratory Technology (C, D, A)
    - Mining Technology (C, A)
  - Nursing (A)
  - Occupational Therapy Assistant (A)
  - Paralegal Technology (C, A)
  - Physical Therapist Assistant (A)
  - Practical Nursing (C, D)
  - Radiography (A)
  - Respiratory Care (A)
  - Social Media Marketing (C)
  - Surgical First Assisting (C, A)
  - Surgical Technology (C, D, A)
  - Welding Technology (C, D)

Contact Information

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

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

ACE2 and Assessment Center
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) 824-8578
Website madisonville.kctcs.edu

Administration
President Dr. Cynthia S. Kelley
Chief Academic Affairs Officer
Chief Student Affairs Officer
Chief Business Affairs Officer
Workforce Solutions
Grants, Planning, and Effectiveness
Institutional Advancement
Public Relations Coordinator
Division of Applied Technologies
Division of Arts & Humanities
Division of Allied Health
Division of Nursing
Division of Mathematics and Sciences
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, Assistant Professor, MA, Murray State University, 2009
Batts, Kevin C, Assistant Professor, MBA, Murray State University, 2011
Bennett, Tate R, Professor, MS, West Virginia University, 1989
Bidwell, Jeffrey L, Professor, MA, Murray State University, 1999
Burton, Misty V, Associate Professor, BS, Eastern Kentucky University, 1995
Childress, Carla S, Instructor, BHS, University of Kentucky, 1997
Clayton, Wendy Dail, Professor, MSN, Western Kentucky University, 2008
Cook, Ava M, Associate Professor, BSN, University of Louisville, 2000
Cooper, Natalie F, Professor, MS, Murray State University, 1998
Cunningham, Chester M, Professor, MBA, Murray State University, 1998
Davis, Reid A, Professor, BS, Western Kentucky University, 1999
Davis, Sharon D, Associate Professor, MA, University of Kentucky, 1993
Davis, Timothy F, Associate Professor, MS, Murray State University, 2013
Deal, Andrea L, Professor, MA, Murray State University, 2005
Deal, Robert Michael, Associate Professor, BS, Mid-Continet University, 2010
Edens, Kellie Brooke, Associate Professor, MSN, Northern Kentucky University, 2014
Elder, Loretta J, Associate Professor, DNP, Eastern Kentucky University, 2016
Florea, Jeffrey M, Professor, MS, Murray State University, 2000
Florea, Katrina M, Associate Professor, MS, Murray State University, 1999
Fouse, Patricia T, Instructor, MA, Murray State University, 2007
Fugate, Sharon J, Professor, MS, Morehead State University, 1990
Gallegos, Darlena, Associate Professor, BS, Kaplan University, 2008
Garrity, Savanna C, Professor, MPA, Murray State University, 2008
Gibson, Molly E, Associate Professor, MPA, Western Kentucky University, 2008
Gibson, Tonia B, 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, Associate Professor, MS, Murray State University, 2014
Hernandez-Stevenson, Brittnay, Instructor, MS, Murray State University, 2013
Hewell, Sherry D, Professor, MED, University of Louisville, 1993
Hill, Clarissa Rana, Professor, MS, Murray State University, 2007
Janssen, Mary E, Professor, PhD, Indiana University, 1995
Johnson, Bartley J, Assistant Professor, MS, Southern Illinois University, 2015
Johnson, Felecia K, Professor, MA, Murray State University, 1987
Jones, Joey B, Professor, MS, Murray State University, 2012
Jones, Sara Jane, Associate Professor, DNP, Eastern Kentucky University, 2016
Lange, Paula Louise, Associate Professor, MS, Indiana University, 1996
Latham, Dawn I, Associate Professor, MSN, Western Kentucky University, 2015
Lear, Ellysa Gayle, Professor, MS, Western Kentucky University, 2001
Lear, Tracie D, Associate Professor, BSN, University of Louisville, 2001
Lee, Lisa E, Professor, MAE, Western Kentucky University, 1998
Lewis, Harry R, Associate Professor, MS, University of Evansville, 1986
Littlehale, Tracy, Associate Professor, MS, Northeastern University, 1999
Lowbridge, John, Associate Professor, PhD, South Bank University, 1971
Luckett, Matthew S, Associate Professor, BS, Western Kentucky University, 2014
Lutz, Rebecca Faith, Associate Professor, MSN, Indiana Wesleyan University, 2012
Markwell, Greshin M, Assistant Professor, MSN, Western Governors University, 2014
Martin, Timothy S, Assistant Professor, MA, Liberty University, 2011
McClean, Nancy J, Associate 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, Instructor, MS, Murray State University, 2016
Morris, Aaron D, Instructor, AAS, Madisonville Community College, 2011
Moore, Elizabeth A, Professor, MS, Murray State University, 1989
Peyton, Sarah R, Associate Professor, MSN, Murray State University, 2011
Pullin, Sheri D, Instructor, BSN, University of Southern Indiana, 2015
Qualls, Mary Kim, Associate Professor, DOT, Eastern Kentucky University, 2016
Richmond, Camille E, Associate Professor/Librarian II, MLIS, Louisiana State University, 1991
Roy Jr, Lawrence, Professor, MFA, George Mason University, 1989
Schnapf, Barbara A, Assistant Professor, MS, University of Evansville, 1997
Shifflett, George M, Professor, PhD, University of Virginia, 1989
Shockey, Sonya M, Associate Professor, MAT, Webster University, 2005
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
Talikdar, Assem, 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
Vander Ploeg, Scott D, Professor, PhD, University of Kentucky, 1994
Welch, Jennifer R, Associate Professor, MA, Western Kentucky University, 2009
Werner, Mary B, Professor, PhD, Northern Illinois University, 1996
West, Marlena K, Professor, MAC, Western Kentucky University, 1976
West, Robin R, Associate Professor, PhD, Indiana State University, 2008
Woodall, Kimberly D, Instructor, AAS, Madisonville Community College, 2007
Woodall, Marsha Diame, Professor, DNP, Eastern Kentucky University, 2016
Wright, Debbie L, Professor, MA, Southern Illinois University, 1988
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 Nursing Assistant (C)
Air Conditioning Technology (C, D)
Applied Process Technologies (C)
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 and Design (C, D)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D)
Cosmetology (C)
Criminal Justice (C, A)
Culinary Arts (C, A)
Diesel Technology (C, D)
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)
Logistics and Operations Management (C)
Manufacturing Industrial Technology:
  Electrical Technology (C, D)
  Industrial Maintenance Technology (C, D, A)
Medical Assisting (C, D)
Medical Laboratory Technology (C, A)
Nursing (A)
Plastics Processing (C)
Plumbing Technology (C, D)
Practical Nursing (C, D)
Real Estate (C)
Respiratory Care (A)
Social Media Marketing (C)
Truck Driver Training (C)
Welding Technology (C, D)
Workplace Safety Specialist (C)

Contact Information

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

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

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

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

Additional Sites

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

General Information  (606) 759-7141
Admissions  Ext. 66185
Business Office  1-855-GO-9MCTC (1-855-469-6282)
Workforce Solutions  Ext. 66120
Continuing Education  Ext. 66120
Disability Services  Ext. 66209
Financial Aid  1-855-GO-9MCTC (1-855-469-6282)
Human Resources  Ext. 66119
Library  Ext. 66206
Public Relations  Ext. 66247
Records  Ext. 66184
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 Guance
Licking Valley Campus Academic Coordinator  David Lawler
Montgomery Campus Education Center Director  Rebecca Morton
Director, Institutional Advancement  Cara Clarke
Director, Marketing and Public Relations  Vacant
Division of Industrial Technologies  Tony Wallace
Division of Liberal Arts and Education  Kathleen Mellenkamp
Division of Math, and Natural Science  Angela Fultz, Ph.D.
Division of Science and Health Sciences Technologies  Debbie Nolde
Division of Business and Related Technologies  Natasha Maddox
Coordinator, Distance Learning  Kimberly Sparks
Coordinator, Dual Credit  Emily Thurman
Associate Dean, Institutional Planning, Research, and Effectiveness  Dana Calland, Ed.D.
Associate Dean, Academic Support Services; Transfer Coordinator  Sherry Stacy
Director, Adult Education/Collegiate Preparation  Millicent Harding
Director, Cultural Diversity  Sandy Power
Director, Financial Aid  Sandi Estill
Director, Human Resources  Vacant
Director, Information Technology  Sonja Eads
Registrar  Vacant
Lori Guance

Faculty

Adler, Jennifer, Instructor, MS, Eastern Kentucky University, 2010
Alburg, Tammy, Instructor, MA, Morehead State University, 1994
Barnett, Kenneth, Associate Professor, BS, Morehead State University, 2004
Bishop, Melissa, Instructor, MA, Morehead State University, 2016
Bone, Martha D, Professor, DA, Middle Tennessee State University, 1985
Boone, Debora A, Associate Professor, BSN, University of Phoenix, 2009
Boyd, Tony, Associate Professor, MA, Morehead State University, 1989
Burns, Tammy B, Assistant Professor, AAS, Maysville Community College, 1988
Butler, Deanna J, Associate Professor, AAS, Morehead State University, 1981
Calland, Dana J Taylor, Professor, Ed.D, Grambling State University, 2007
Callihan, Jeffrey C, Associate Professor, BS, Morehead State University, 2002
Carroll, Melissa L, Professor, MA, Morehead State University, 1998
Clarke, Ginger, Assistant Professor, BSN, Auburn University, 1990
Curtis, Tina, Assistant Professor, MA, Northern Kentucky University, 2009
Dickson, Jeannette C, Professor, MFA, Ohio University, 1985
Dren, Joshua W, Associate Professor, MA, Morehead State University, 2006
Eads, Sonja R, Professor/Librarian I, MLS, University of Kentucky, 1985
Flora, Charlene, Assistant Professor, BA, University of Tennessee, 2010
Froedge, Shannon C, Professor, MSN, Northern Kentucky University, 1996
Garrison, Janet L, Professor, MBA, University of Kentucky, 1992
Goodpaster, Sagan, Assistant Professor, MS, Eastern Kentucky University, 2013
Graves, Robert L, Professor, MS, Morehead State University, 1992
Haley-Rosser, Vicky, Assistant Professor, BSN, University of Kentucky, 1984
Hamm, Robert G, Professor, BS, Morehead State University, 1985
Hatton, David, Instructor, AAS, Maysville Community and Technical College, 2015
Hauke, Barbara, Professor, MS, University of Cincinnati, 1989
Hawkins, Adam, Assistant Professor, BS, Morehead State University, 2010
Hawkins, Jack, Assistant Professor, AAS, Maysville Community and Technical College, 2010
Howard, Barry D, Assistant Professor, AA, Morehead State University, 2007
Hunter, Nancy D, Professor, EdS, University of Kentucky, 1999
Hyrcza, Alexander I, Professor, MA, Western Kentucky University, 1990
Jones, Gordon, Instructor, AAS, Maysville Community and Technical College, 1989
King, John E, Professor, AA, Morehead State University, 2007
Klee, John R, Professor, MHE, Morehead State University, 1977
Lawler, David J, Professor, MS, University of Kentucky, 1990
Lightner, Rebecca S, Professor, MSN, University of Kentucky, 1995
Lowery, Bethany L, Associate Professor, BSN, Morehead State University, 2002
Lykins, Charles, Instructor, MA, Morehead State University, 2006
Maddox, Natasha, Assistant Professor, MBA, Morehead State University, 2013
May, Elena, Associate Professor, MA, Novosibirsk State University, 1990
McCleanhan, Christine, Instructor, MFA, Mills College, 2008
McDavid, Thea, Instructor, BSN, Walden University, 2013
McDowell, Susan E, Professor, MSN, Northern Kentucky University, 2003
McKinney, Dallas, Instructor, BA, Morehead State University, 2010
Mellenkamp, Kathleen M, Professor, MA, Morehead State University, 1977
Miller, John S, Associate Professor, MS, University of Kentucky, 1988
Moore, Brenda, Assistant Professor, MA, State University of New York at Bing-hamton, 1988
Morris, Debra R, Professor, BBA, Morehead State University, 1988
Morris, Melanie J, Associate Professor, BSN, University of Kentucky, 1991
Muens, Martha J, Professor, MA, University of Kentucky, 1995
Napier, Jerry, Associate Professor, PhD, University of Kentucky, 1997
Noble, Wendy, Professor, MA, Morehead State University, 2009
Nolde, Deborah B, Professor, MSN, Northern Kentucky University, 2005
Ouderkirk, 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
Perkins, Brandin, Professor, MS, Morehead State University, 2005
Prater, Mary Alice, Instructor, BHS, University of Kentucky, 1984
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
Swartz, Dennis Ray, Associate Professor, BS, Morehead State University, 2007
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
Watson, Megan, Assistant Professor, Certified Cosmetology Instructor Salon Professional Academy, 2010
Weiss, Justin A, Associate Professor, MS, Marshall University, 2009
Whitten, Brianna C, Associate Professor, MA, Georgetown College, 2004
Williams, James T, Instructor, DVM, University of Tennessee, 1993
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
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 Technologies (C, A)
  - Computerized Manufacturing and Machining (C, D, A)
  - Criminal Justice (C, A)
- Diesel Technology (C, D, A)
- Emergency Medical Services — Paramedic (C, A)
- Emergency Medical Technician (C)
- Engineering and Electronics Technology (C, D, A)
- Engineering Related: Project Lead the Way (C)
- Financial and Customer Service (C)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Healthcare Facilities Leadership (C, D, A)
- Human Services (C, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
- Medicaid Nurse Aide (C)
- 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

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

Scott Williams, PhD.
Michael Rodgers
Sarah Price
James Hartz
Mike Rodgers
Kevin Beardmore
Cynthia Fiorella
Stacy Edds-Ellis, PhD
Marc Malthy, PhD
Rhonda Logdon
Terri Lanham, RN, MSN
Aubrey D. Autry
Julia Ledford, PhD
Aubrey D. Autry
Veena Sallan, PhD
Lewatis McNeal, PhD
Bernadette Toye Hale
Jeff Hendricks

Faculty

Abell, Donna, Professor/Library Sciences, Florida State University, 2004
Alschbach, Matthew, Assistant Professor, MA, San Diego State University, 2008
Ash, Angela, Associate Professor, MA, University of Louisville, 2005
Bailes, Steven R, Professor, BS, Eastern Kentucky University, 1977
Basham-Edge, Zara, Associate Professor, AAS, Owensboro Community and Technical College, 2013
Boorman, Keith, Associate Professor, Murray State University, 1999
Booker, Connie, Assistant Professor, MA, Western Kentucky University, 1997
Bowlds, Barry K, Associate Professor, AAS, Western Kentucky University, 2003
Boyd, Michael, Professor, MBA, Southwest Missouri State University, 1987
Boyd, Vicki H, Professor, MA, Murray State University, 1981
Branham, Matthew, Professor, MA, Morehead State University, 2000
Brown, Kathryn, Associate Professor, MA, Western Kentucky University, 1994
Canales, Michael, Associate Professor, BS, DeVry University, 1987
Caplan, Geralyn M, Professor, EdD, Western Kentucky University, 2015
Collins, Shannon Quintette, Professor, MA, Morehead State University, 2000
Crowe, Randy Keith, Professor, BS, Western Kentucky University, 1999
Curtis-Abuonk, Vickie L, Associate Professor, MS, Western Kentucky University, 1984
DePasquale, Donna, Assistant Professor, MS, Western Kentucky University, 2013
Dick, Timothy T, Professor, PhD, University of Kentucky, 2002
Ebelhar, Bethany, Associate Professor, BSN, Murray State University, 2000
Edwards, Lois M, Associate Professor, EdD, Western Kentucky University, 2017
Ford, Constance R, Professor, DME, Indiana University, 1983
Gessert, Chad, Associate Professor, MA, Western Kentucky University, 1997
Gish, Misty, Associate Professor, MS, Murray State University, 2001
Glenn III, Robert J, Professor, MA, University of Nevada Las Vegas, 1985
Glenn, James H, Professor, EdD, University of Kentucky, 2001
Gore, Michael G, Professor, MS, Western Kentucky University, 2009
Hall, Teresa, Assistant Professor, MSN, University of Louisville, 2014
Hamilton, Cassandra, Associate Professor, MA, Western Kentucky University, 2003
Hammonds, Gary S, Associate Professor, AAT, Institute of Electronic Technology, 1986
Head Jr, Gerald M, Assistant Professor, MS, Western Kentucky University, 1995
Helm, Monty J, Professor, MFA, Southern Illinois University - Carbondale, 1988
Higdon, Frances, Assistant Professor, AAS, Owensboro Community and Technical College, 2011
Hildenbrandt, Daniel R, Associate Professor, MA, Southern Illinois University - Carbondale, 1982
Hoffman, Kathy, Associate Professor, MS, Catholic University of America, 1986
Howard, Jacqueline, Assistant Professor, BS, Murray State University, 2009
James, Walter, Assistant Professor, Nashville Auto-Diesel College, 1993
Johnson, Connie F, Associate Professor, MBA, Morehead State University, 2006
Johnson, James L, Professor, MA, Western Kentucky University, 1987, M.A. University of Kentucky, 1998
Kobella, Peter, Associate Professor, MA, Matej Bel University, 1998
Leach, Eddie, Instructor, DVM, Auburn University, 1984
Lewis, Courtland, Assistant Professor, PhD, University of Tennessee, 2012
Lutzel, John, Associate Professor/Library Sciences, MLS, University of Southern Mississippi, 2004
Martin, David C, Professor, MS, Western Kentucky University, 2007
McCray, Lauren, Assistant Professor, MPA, Western Kentucky University, 2012
McDonough, Greta J, Professor, MSSW, Western Kentucky University, 1978
McGee, Jennifer S, Associate Professor, BSN, Western Kentucky University, 1996
Menor, Nadine Joyce, Associate Professor, EdD, Western Kentucky University, 2015
Monsour, Matthew, Instructor, MA, Saint Meinrad School of Theology, 2010
Morris, Edward J, Professor, PhD, Southern Illinois University, 1989
Morris, Kelly, Associate Professor, University of Kentucky, 2009
Moseley, Daniel Joe, Professor, BS, Western Kentucky University, 2008
Mowers, Kathleen A, Professor, MAT, Indiana University, 1975
Mundell, Donald W, Associate Professor, MS, Eastern Illinois University, 1976
Nall, Keith Lewis, Assistant Professor, AS, Nashville Automotive Diesel College, 1986
Northen, Tonya, Associate Professor, MFA, University of Memphis, 1999
Oblade, Anthony, Associate Professor, PhD, Southern Illinois University, 2001
Payne, Justin, Associate Professor, AAS, Owensboro Community and Technical College, 2005
Payne, Shawn, Associate Professor AAS, Owensboro Community and Technical College, 2007
Perkins, Micah W, Professor, PhD, University of Louisville, 2016
Purdy, Cheryl A, Associate Professor BS, Kentucky Wesleyan College, 1976
Purdy, Robert, Associate Professor, MPS, Western Kentucky University, 1983
Revlett, Kimberly, Instructor, ADN, Kentucky Wesleyan College, 2000
Rice, Tammy M, Associate Professor, MA, Western Kentucky University, 1984
Runyon, Carl R, Associate Professor, MA, University of Evansville, 1973
Ruth, Deborah L, Associate Professor, MA, Western Kentucky University, 1993
Schmitt, Theresa M, Professor, MBA, University of Akron, 1992
Skaggs, Meredith, Associate Professor, EdD, Western Kentucky University, 2015
Stone, Larry G, Instructor, Diploma, Owensboro Community and Technical College, 2005
Swanson, Susan, Associate Professor MA, Western Kentucky University, 2007
Taylor, Eunice K, Associate Professor, PhD, 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, Associate Professor, MA, Southern Illinois University - Carbondale, 1995
Wood-Graesla, Vickey A, Associate Professor, AAS, Owensboro Community and Technical College, 2003
Yazvac, Joseph, Professor, EdD, Auburn University, 2002
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.

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

Somerset Community College

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

SCC Laurel Campus
100 University Dr.
London, KY 40741

SCC McCreary Center
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

(877) 629-9722
(606) 451-6630
1-855-66GO-SCC (1-855-664-6722)
(606) 451-6690
(606) 451-6706
1-855-66GO-SCC (1-855-664-6722)
(606) 451-6620
606-451-6618
(606) 451-6710
(606) 451-6618
(606) 451-6650
(606) 451-6857
somerset.kctcs.edu
President/CEO
Jo Marshall, PhD

Provost
Tony Honeycutt, EdD

Associate Provost
Clint Hayes, EdD

Dean of Applied Technology
Roger Angevine

Dean of Student Affairs
Tracy Casada

Dean of Learning Support
Bruce Gover

Dean of Health Sciences
Nancy Powell

Associate Dean of Distance Learning/Learning Support
Linda Bourne

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

Associate Dean of Career & Technical
Dan Burnett

Associate Dean of Transitional Education
Kim Cleberg

Associate Dean of Mathematics & Natural Sciences
Vacant

Associate Dean of Business & Professional Services
Lois McWhorter

Chief/Workforce Solutions Officer
Alesa Johnson

Chief Operations Officer
Larry Abbott

Chief Business Affairs Officer
Jill Meece

Chief Institutional Advancement Officer
Cindy Clouse

Administration

Abner, Jeffery, Instructor, BS, Eastern Kentucky University, 2015
Alen, Melinda J, Associate Professor, MA, Eastern Kentucky University, 1993
Angevine, Roger L, Professor, MS, University of Illinois, 1969
Asher, Jason, Associate Professor, MA, Lindsey Wilson College, 2010
Atkinson-Bigelow, Joanna, 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
Beaty, Frances M, Associate Professor, AS, Eastern Kentucky University, 1986
Behrman, David M, Professor, MS, University of North Carolina-Chapel Hill, 1998
Bentley, Sheila, Assistant Professor, MS, Eastern Kentucky University, 2009
Blevins, Jo Y, Professor, DNP, University of Kentucky, 2010
Bloomingburg, Michael S, Associate Professor, MA, Eastern Kentucky University, 2005
Bradford, Kevin L, Professor, MBA Wayland Baptist University, 2000
Bradley, Daniel A, Associate Professor, MA, Morehead State University, 2007
Bridgman, Pamela S, Professor, MS, Capitol College, 1999
Brock, Brandy, 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
Burlew, Jonathan W, Professor, MS, Fort Hayes State University, 1993
Burnett, Daniel C, Professor, MA, Union College, 2007
Burnett, Kippe Brown, Professor, MSN, Eastern Kentucky University, 2000
Burton, Cindy, Associate Professor, BFA, American Intercontinental University, 2009
Byrd, Cynthia G, Instructor, MAEd, Eastern Kentucky University, 1986
Calcaterra, Carol L, Associate Professor, MBA, Eastern Kentucky University, 1993
Calder, Michael V, Associate Professor, AAS, Somerset Community College, 2000
Carothers, Franklin T, Professor, PhD, Mississippi State University, 2014
Cash, Curtis F, Professor, MA, Union College, 2007
Catron, Shanda L, Associate Professor, BS, University of Louisville, 2007
Chadwell, Clevern, Associate Professor, AAS, Somerset Community College, 2007
Childress, Margaret L, Associate Professor, MBA, Morehead State University, 2008
Cleberg, Kimberly S, Associate Professor, MA, Eastern Kentucky University, 2001
Cleberg, Steven F, Professor, MFA, University of Portland, 1982
Colley, David A, Professor, MS, Eastern Kentucky University, 2015
Conaway, Vicki L, Professor, MSN, University of Kentucky, 1984
Copenhaver, Brandi Wilson, Professor, MS, Eastern Kentucky University, 2001
Cunningham, Gary, Associate Professor, EdD, Texas A&M University, 2006
Deaton, Eric D, Associate Professor, MS, Eastern Kentucky University, 1997
Decker, Doyle, Assistant Professor, MA, California State University, 2010
Dobbs, Billy W, Associate Professor, MS, University of Kentucky, 1994
Duvall, Billie, Associate Professor, MSN, Eastern Kentucky University, 2012
Eastham, Donna S, Professor, MA, 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
Flanary, Randall, Professor, MS, Eastern Kentucky University, 2015
Flyn, Lynsey R, Instructor, MSN, Western Kentucky University, 2016
Franklin, Tracey, Assistant Professor, BA, Midway College, 2014
Fries, Dennis, Assistant Professor, MS, Eastern Kentucky University, 2003
Fries, Wanda F, Professor, MFA, Bennington College, 1986
Gadd, Belinda P, Associate Professor, MA, Eastern Kentucky University, 2002
Gadd, Susan G, Professor, MS, University of Kentucky, 1989
Gammage, Simeon D, Associate Professor, AAS, Somerset Community College, 2010
Gaskin, Tom P, Associate Professor, MS, Eastern Kentucky University, 2007
Goleman, Michael J, Associate Professor, PhD, Mississippi State University, 2010
Gover, Glen B, Professor, EdD, Eastern Kentucky University, 2017
Graham, Gerald M, Associate Professor, AAS, Somerset Community College, 2010
Grover, Alyce A, Professor, MA, Southwest Missouri State University, 1989
Hammons, John S, Professor, DPT, Shenandoah University, 2006
Harris, James Ricky, Assistant Professor, AAS, Somerset Community College, 2007
Harris, Jeffrey D, Professor, MA, Eastern Kentucky University, 1998
Hewitt, John, Assistant Professor, MSN, Western Kentucky University, 2016
Hinkle, Teresa, Instructor, MS, Eastern Kentucky University, 2010
Hoskins, Jess, Associate Professor, BA, Eastern Kentucky University, 1975
House, Debra J, Professor, MS, University of Kentucky, 1994
Howe, Julie M, Associate Professor/Librarian, MLS, University of Kentucky, 2010
Huffaker, Lorna S, Professor, MSN, Eastern Kentucky University, 2003
Huntsman, Mary Taylor, Professor/Library, MA/MLS, University of Kentucky, 1994
Isham, Mark, Associate Professor, MS, Eastern Kentucky University, 1992
Jacques, Kenneth R, Professor, MBA, Ball State University, 1987
Johnson, Kelly, Assistant Professor, MA, Eastern Kentucky University, 2003
Jones, Rebecca, Instructor, AAS, Somerset Community College, 2011
Karim, Md Jahurul, Associate Professor, DVM, Bangladesh Agricultural University, 1977
Kilgore, April L, Professor, PhD, University of Kentucky, 1994
Kohrman, Elaine E, Associate Professor, MS, University of Cincinnati, 1990
Krause, Richard, Professor, MA, University of Kansas, 1969
Leland, Kimberly, Instructor, AAS, Temple College, 1999
Larson, Irene J, Associate Professor, MA, National University, 2010
Lester, Danny L, Associate Professor, AAS, Somerset Technical College, 2002
Lewis, Kathy S, Professor, MS, Eastern Kentucky University, 1994
Logan, Donna L, Professor, MA, Eastern Kentucky University, 1997
Max, Ronald W, Associate Professor, MA, Morehead State University, 1984
Martin, Ruth S, Professor, DNP, Western Kentucky University, 2017
Martin, George M, Professor, MS, Murray State University, 1991
Matika, Richard S, Associate Professor, MS, Eastern Kentucky University, 2002
McCleland, Steven S, Associate Professor Instructor, EdD, University of the Cumberlands, 2012
McQueen, Travis, Professor, MS, Eastern Kentucky University, 2001
McWhorter, Lois A, Professor, MBA, Eastern Kentucky University, 1988
Meade, Ronald L, Professor, DPT, Shenandoah University, 2006
Metcalf, Virginia E, Associate Professor, MS, Eastern Kentucky University, 2002
Mills, Angela N, Associate Professor, BS, Northern Kentucky University, 2012
Mills, Crayton T, Associate Professor, PhD, Capella University, 2015
Morgan, Phillip D, Assistant Professor, AAT, Somerset Technical College, 2002
Morris, Amanda K, Associate Professor, MA, University of Kentucky, 2009
Muse, Dana, Professor, MS, University of Kentucky, 1998
Nazarro, Eduardo, Assistant Professor, AS, Sullivan University, 2005
Null, George Curtis, Assistant Professor, AA, Trinity Valley Community College, 1967
Oakes, Chelsea, Assistant Professor, MSN, Eastern Kentucky University, 2014
Osborne, Roger, Professor, MA, University of Louisville, 2002
Owens, Jennifer, Associate Professor, AAS, Somerset Community College, 2008
Perkins, Jeffrey H, Professor, MA, Eastern Kentucky University, 1993
Peterson, Betty W, Professor, MA, University of Kentucky, 1986
Phillips, David A, Associate Professor, AAS, Somerset Technical College, 2000
Phillips, Devon, Assistant Professor/ Librarian, MLS, 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
Price, Carol A, Associate Professor, MSN, Eastern Kentucky University, 2014
Ramilo, Cecilia A, Associate Professor, PhD, Washington State University, 1996
Randall, Marci S, Associate Professor, MS, 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
Robertson, Elwanda, Assistant Professor, MSN, Murray State University, 2000
Routt, Patricia L, Assistant Professor, BSN, Eastern Kentucky University, 2013
Shearer, Elizabeth, Professor, MA, Western Kentucky University, 1988
Shelton, Billie J, Associate Professor, DNP, Eastern Kentucky University, 2017
Sherman, Gary J, Professor, MS, University of Wyoming, 1979
Sherman, Loris E, Professor, MS, University of Wyoming, 1985
Simpson, William Stuart, Professor, MS, Eastern Kentucky University, 2004
Smith, Jimmy R, Associate Professor, AS, Eastern Kentucky University, 1999
Spencer, Robert T, Professor, MA, Eastern Kentucky University, 1993
Starnes, John H, Associate Professor, Ph.D., University of Kentucky, 2013
Stephens, Erin, Associate Professor, MA, Eastern Kentucky University, 2007
Stringer, Gail S, Professor, MS, Eastern Kentucky University, 1989
Swanner, Regina K, Professor, BS, Eastern Kentucky University, 2007
Taylor, Guy L, Instructor, BS, University of Kentucky, 1981
Taylor, James H, Associate Professor, MA, Eastern Kentucky University, 2002

Thomas, Janice E, Assistant Professor, MSN, Eastern Kentucky University, 2008
Tincher, James E, Assistant Professor, AAS, Somerset Technical College, 2000
Toby, Kimberly L, Associate Professor, MS, University of Kentucky, 1998
Tomlinson, Nick, Professor, MS, Eastern Kentucky University, 2006
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
Webb, Karen Calvert, Professor, BS, Eastern Kentucky University, 1998
Wells, Michael, Assistant Professor, BS, Indiana Wesleyan University, 2013
Wheat, Dee, Assistant Professor, ASN, Eastern Kentucky University, 1993
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
Southcentral Kentucky Community and Technical College

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

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

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

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

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

Contact Information
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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

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Denna White

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

Business Office
Gara Clarkson
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Workforce Solutions (270) 901-1033
Dr. Kim Myers

Assessment & Testing (270) 901-1036
Elaine Yates

Disability Services (270) 901-1202
Pam Bulle

Financial Aid
Jennifer Wells
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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
Amy Cannon
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Veterans Affairs
(270) 901-1003
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(270) 901-1160

Administration

President
Dr. Phillip Neal
Proost
Dr. Maggie Shelton
Interim Vice President of Student and Organizational Success
Brooke Justice
Vice President of Finance and Administration
Chris C umens
Vice President of Outreach and Community Development
Dr. James McCaslin
Executive Director of SKYCTC Foundation & Associate Vice President of Advancement
Heather Rogers
Director of Human Resources
Sherri Forester

Deans
Dr. Tonya Daniels
Arts and Humanities
Gene Basil
Applied Technology
Dr. Jimmy Isenberg
Allied Health and Nursing and Director, Glasgow Campus
Kevin Kenady
Mathematics and Sciences
Gene Basil
Engineering and Machine Tool Technology
Lisa Hunt
Business

Faculty

Adams, Elizabeth C, Assistant Professor, MA, Western Kentucky University, 2012
Adams, Jessica L., Associate Professor, MS, Murray State University, 2001
Atwell, Sheila D., Assistant Professor, MSN, Western Kentucky University, 2005
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, 2005
Bradford, Joshua, Associate Professor, BS, Western Kentucky University, 2006
Bronson Jr, James P., Professor, BS, Madison University, 2002
Case, Joseph C., Assistant Professor, MA, Trevecca Nazarene University, 2011
Crews, Debra, Assistant Professor, AS, Western Kentucky University, 1997
Combs, Rex Allen, Professor, MS, Western Kentucky University, 2005
Conner, Rebecca E., Assistant Professor, Ph.D., Texas Woman’s University, 1996
Ellis, Claudean, Assistant Professor, MA, Nova Southeastern University, 2005
Ewing, Mark A., Instructor, Certificate, Southcentral Kentucky Community & Technical College, 2006
Faine, John B., Associate Professor, MS, Northern Kentucky University, 2006
Finley, Joseph Lynn, Associate Professor, MS, University of Kentucky, 2002
French, Esther G., Assistant Professor, MA, University of Southern Mississippi, 2005
Florence, Christina M., Assistant Professor, MA, Western Kentucky University, 2012
Fose, Jacob F., Instructor, MS, Western Kentucky University, 2013
Fose, Margaret R., Assistant Professor, MA, Western Kentucky University, 2012
Galloway, Angela M., Assistant Professor, MS, University of Kentucky, 2005
Gardner - Palmer, Jahi M., Instructor, MS, Western Kentucky University, 2014
Gaskins, Carmen C., Professor, MS, Western Kentucky University, 1994
Gentry, Traci, Associate Professor, MSN, Western Kentucky University, 2011
Gibbons, Jacqueline R., Instructor, MA, Western Kentucky University, 2011
Greer, Michael, Associate Professor, AA, Bowling Green Technical College, 2012
Gregory, Jeffery, Instructor, AAS, Southcentral Kentucky Community & Technical College, 2010
Hagan, Chris A, Assistant Professor, AS, Southcentral Community and Technical College 2016
Harlan, Angela K., Professor, DNP, Northern Kentucky University, 2016
Harris, Myria, D, Assistant Professor, MA, Chamberlain College of Nursing, 2013
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, Associate Professor, AAS, Bowling Green Technical College, 2006
Jeter, Christopher N, Assistant Professor, BS, Western Kentucky University, 2009
Jones, Charles D, Assistant Professor, MA, Savannah College of Art and Design, 1990
Kennedy, Barry A, Associate Professor, MA, Western Kentucky University, 2003
Knowles, Brian A, Instructor, MS, Western Kentucky University, 2016
LeFevre, Kathryn Y. A, Assistant Professor, MS, University of Kentucky, 2007
Lindsly, Jason E, Instructor, AAS, Southcentral Kentucky Community and Technical College, 2012
McKinney, Ken D, Associate Professor, BS, Western Kentucky University, 2014
Moore, Wendy B., Assistant Professor, MSN, Western Kentucky University, 2006
Moorman, John K, Assistant Professor, BS, Western Kentucky University, 1977
Mulally, Aaron T., Assistant Professor, MA, The College of Saint Scholastica, 2007
Murphy, Terrell W, Associate Professor, AS, Western Kentucky University, 1993
Norrold, 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
Pennyccull II, Donald B, Associate Professor, MS, Western Kentucky University, 2007
Peyton, Natassia L, Instructor, 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, Assistant Professor, BSN, Western Kentucky University, 2012
Purpurs, Carmen E, Assistant Professor, MPA, Western Kentucky University, 2007
Richardson, Merrie, R, Instructor, MS, Western Kentucky University, 2014
Royst, Christopher L, Associate Professor, BS, Murray State University, 2004
Shive, April, Associate Professor, MSN, Western Kentucky University, 2011
Shoemaker, Jennifer J, Professor, Ed.D, University of Kentucky, 2017
Slaughter, Lori A, Professor, MA, Western Kentucky University, 2010
Smith, Shelly R, Assistant Professor, MA, Eastern Kentucky University, 2011
Sparks, Richard B., Professor, BS, University of Kentucky, 2003
Stagner, Phillip W, Associate Professor, MA, Eastern Kentucky University, 2004
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
Trivett, Darrell S., Instructor, AS, Western Kentucky University, 2011
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, 2009
Ward, Teresa Y, Assistant Professor, MS, Troy University, 1983
Wendt, Leah D, Assistant Professor, MA, California State Polytechnic University, 2008
West, Jared D., Instructor, AAS, Southcentral Kentucky Community and Technical College, 2006
White, Renee, Assistant Professor, Ph.D, University of Louisville, 2003
Williams, Thomas W, Associate Professor, MA, Western Kentucky University, 2007
Wilkins, Diane A, Professor, MA, University of Kentucky, 1999
Wolters, Rachel M, Instructor, MA, Southern Illinois University, 2013
Youngquist, Sherry W, Assistant Professor, MA, Western Kentucky University, 1997

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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)
- Heavy Equipment Operation (C, D)
- Interdisciplinary Early Childhood Education (C)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D)
- Medical Assisting (C, D)
- Medical Laboratory Technology (C, A)
- Mining Technology (C)
- Nursing (A)
- 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)
- Welding Technology (C, D)
- Workplace Safety Specialist (C)

Contact Information

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Whitesburg Campus
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General Information

Academics: Elijah Buell
Admissions: Felicia Carroll
Business Affairs: Angela Simpson
Director of Advising: Sherry Tinley
Disability Services: Tony Sweat
Financial Aid: Barbara Gent
Human Resources: Billie Franks
Library: Lynn Cox
President’s Executive Assistant: Paul Bryant
Public Relations: Tiffany Scott
Registration/Records: Anita Barnhill
Transfer Information Liaison: Joe Sutton
Veterans Affairs: Kim Hobbs
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Workforce Solutions: Sherri Clark

Administration

Dr. Vic Adams
Angela Simpson
TBD
Dr. Rick Mason
Sherri Clark
Dr. Carolyn Sundy
Dr. Erin Reasor
Billie Franks
Tiffany Scott
Michael S. Good
Ann Maculia
Ronnie Daniels
Rhonda L. Creech
Michael S. Good
Kevin Lambert
Ron Hayes

Faculty

Abrams, Emily, Instructor, BS, King University, 2014
Ahlstedt, Lisa A, Librarian I, MS, University of Tennessee, 1995
Bargo, Glenna, Associate Professor, MSN, Eastern Kentucky University, 2008
Barrick, Lisa, Instructor, M. Ed., Lincoln Memorial University, 2010
Banton, Scott, Professor, MSN, Northern Kentucky University, 2011
Bowling, Kenneth N, Professor, BS, Union College, 2003
Bowling, Tracy, Professor, PT, DPT, University of Kentucky, 2010
Bowling, Roger A, Professor, MS, Eastern Kentucky University, 2000
Brooks, Lana, Assistant Professor, MSN, Western Kentucky University, 2014
Buell Jr, Elijah, Professor, MBA, Morehead State University, 1980
Burnside, Patricia, Professor, MAED, Tusculum College, 2007
Carmack, Michael E, Professor, AAS, Harlan Regional Technology Center, 1995
Chapman, Tammie, Professor, MA, Cumberland College, 1995
Clark, Darrin, Associate Professor, MS, University of Kentucky, 1999
Cloud, Victoria, Associate Professor, MA, Ed, Western Kentucky University, 2014
Clutts, David W., Professor, Ed.D, Liberty University, 2010
Collier, William G, Professor, MA, Eastern Kentucky University, 1992
Conklin, Peggy, Professor, MA, Morehead State University, 1985
Conover, Edwin Wheeler, Professor, PhD, Cincinnati, 1996
Cox, Donna, Associate Professor, MA, Union College, 1973
Cox, Lynn, Librarian I, MS, University of Kentucky, 1994
Creech, Rhonda L, Professor, MA, Morehead State University, 1996
DANIELS, RonnIE W, Professor, BS, Eastern Kentucky University, 2000
DINGUS, Ariel, Assistant Professor, MA, Middle Tennessee State University, 2012
DITTY, Kathy, Associate Professor, M.Ed, Lindsey Wilson College, 2004
DIXON, Jill Suzanne, Associate Professor, DPT, University of Kentucky, 2011
DRUEN, Matthew, Assistant Professor, Ph.D, University of Louisville, 2010
Dyer, Bradley, Professor, MS., Eastern Tennessee State University, 1999
Eldahan, Ismail A, Associate Professor, MS, American Sentinel University, 2008
Eldridge, Tracy, Instructor, BS, Lincoln Memorial University, 2010
Epling, Michael, Professor, MBA, Morehead State University, 1995
Fields, Brian, Assistant Professor, M.S., Everett University, 2010
Fleming, April, Assistant Professor, BSN, Morehead State University, 2013
FORBES, Zelma M, Professor, MS, Ohio University, 1983
Forson-Scopa, Elana, Associate Professor, MS, Eastern Kentucky University, 2003
Gipe, Robert H, Professor, MA, University of Massachusetts, 1988
Good, Michael S, Professor, MS, Eastern Kentucky University, 2001
Gordon, Shelia, Professor, MLS/MSW, University of Kentucky, 2014/1995
GREENE, Steven T., Associate Professor, AS, Southeast Kentucky Community and Technical College, 2008
Hale, Bob Jr, Astor, Professor, BUS, Morehead State University, 1992
HARRIS, Kevin, Instructor, Ph.D., University of Kentucky, 2015
Helton, Melissa, Associate Professor, MFA, Bowling Green State University, 2006
Hensley, Evelyn M., Librarian II, MS University of Kentucky, 2006
Herren, Douglas, Professor, AAS, Southeast Kentucky Community and Technical College, 2006
HOLBROOK, SAndy, Professor, M.Ed, 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
Macula, Terry A, Professor, MA, Oklahoma State University, 1994
Marcum, Joseph S, Professor, MA, University of Tennessee, 1980
Marsee, Stephanie, Instructor, BSN, University of Pikeville, 2014
Mayes, Caroline, Associate Professor, MA, National University, 2007
McDannel, James H, Associate Professor, PhD, Southern Illinois University at Carbondale, 1981
McDONELL, Raymond E., Associate Professor, PhD, University of Tennessee, 1997
MIDDLETON, Barbara, Instructor, BSN, University of the Cumberlands, 2015
Miles, Nancy, Associate Professor, Certificate, Mountain Empire Community College, 1976
Miller, Rebecca D, Professor, MA, Union College, 1998
MILLS, Dana, Instructor, AAS, Fugazzi College, 1999
Murphy, Kevin, Librarian I, MSLS, University of Kentucky, 1995
MUSE, Jessica, Instructor, BSN, Lincoln Memorial University, 2015
OMAR, Saeed, Associate Professor, PhD, Mississippi State University, 1987
Pennington, Joy, Associate Professor, MSN, Chamberlain College of Nursing, 2013
Ray, Johnny E, Associate Professor, BS, Eastern Kentucky University, 2000
SCHERTZ, Ann E, Professor, MA, Indiana University, 1986
SCOPA Jr, Joseph A, Professor, MFA, Pennsylvania State University, 1976
Silver, Roy, Professor, PhD, University of Toledo, 1982
SIMPSON, Amelia, Professor, MFA, Spaulding University, 2013
SIMPSON, Astor, Professor, MA, Lincoln College, 1982
Singh, Rajiv, Assistant Professor, MS, University of North Dakota, 2012
SMITH, Marshall, Associate Professor, AAS, Southeast Kentucky Community and Technical College, 2011
STEEVENBERGEN, Gary I, Professor, MS, Eastern Kentucky University, 1996
Stewart, Jenny, Assistant Professor, BS, University of Kentucky, 1982
Sundy, Carolyn M, Professor, Ph.D., Mississippi State University, 2017
TURNER, Delia, Instructor, BS, Eastern Kentucky University, 2013
TURNER, Mary Leann, Associate Professor, BS from EKU, 1994
VAUGHN, Jamie, Professor, MBA, University of Kentucky, 1981
Walker, Robert, Assistant Professor, AAS, Southeast Kentucky Community and Technical College, 2016
WEBB, Danny, Associate Professor, MA, Eastern Kentucky University, 1994
WHITE, Paula, Assistant Professor, MSN, University of Louisville, 2007
WRIGHT, Wendy, Associate Professor, MS, Eastern Kentucky University, 2015
Mission Statement/Status of Accreditation

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

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

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

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Transfer Curricula/Art Related

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

Visual Art (A)

Occupational/Technical Curricula

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

Advanced Nursing Assistant (C)
Air Conditioning Technology (C, D)
Apprenticeship Studies (A)
Auto Body/Collision Repair Technology (C, D)
Automotive Technology (C, D, A)

Business Studies:
- Administrative Office Technology (C)
- Business Administration Systems (C, D, A)
- Medical Information Technology (C, D, A)
- Computer Aided Drafting and Design (C, D)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D, A)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Culinary Arts (C, D, A)
- Dental Assisting/Dental Hygiene (D)
- Diesel Technology (C, D)
- Diagnostic Medical Sonography (A)
- Emergency Medical Services – Paramedic (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)
- Homeland Security/Emergency Management (C, A)
- Interdisciplinary Early Childhood Education (C, A)
- Logistics and Operations Management (C, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
- Marine Technology (C, A)
- Mechatronics (C)
- Medical Laboratory Technology (C, A)
- Nursing (A)
- Pharmacy Technology (C)
- Physical Therapist Assistant (A)
- Practical Nursing (C, D)
- Radiography (C, A)
- Surgical Technology (A)
- Truck Driver Training (C)
- Visual Communication:
  - Design & Technology (C)
  - Multimedia (C, D, A)
  - Printing (C)
- Welding Technology (C, D)

Contact Information

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

Accessibility Services (270) 534-3406
Admissions/Records 1-855-GO-WKCTC (1-855-469-5282)
Advising Center 1-855-GO-WKCTC (1-855-469-5282)
Adult Learning Center (Adult Education/GED program)
McCracken County (270) 534-3451
Graves County (270) 856-2422
Assessment Center 1-855-GO-WKCTC (1-855-469-5282)
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) 534-9200
Human Resources (270) 534-3078
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) 534-3861
Website westkentucky.kctcs.edu

Administration

President/CEO
Dr. Amy Russians
Vice President of Academic Affairs
Dr. Amy Russians
Interim Vice President of Workforce & Economic Development
Dr. Amy Russians
Vice President of Student Development
Dr. Amy Russians
Vice President of Business Affairs
Dr. Amy Russians
Vice President of Operations
Dr. Amy Russians
Vice President of Enrollment Management
Dr. Amy Russians
Vice President of Institutional Advancement
Dr. Amy Russians
Director of Human Resources
Dr. Amy Russians
Director of Marketing and Public Relations
Dr. Amy Russians
Director of the Clemens Fine Arts Center
Dr. Amy Russians
Director of Adult Education
Dr. Amy Russians
Associate Vice President of Academic Affairs
Dr. Amy Russians
Associate Vice President of Learning Initiatives
Dr. Amy Russians
Dean of Online Learning
Dr. Amy Russians
Dean of Allied Health and Personal Services Division
Dr. Amy Russians
Dean of Applied Technologies Division
Dr. Amy Russians
Dean of Business and Computer Related Technologies Division
Dr. Amy Russians
Dean of Humanities, Fine Arts and Social Sciences Division
Dr. Amy Russians
Dean of Nursing Division
Dr. Amy Russians
Dean of Paducah School of Art and Design Division
Dr. Amy Russians
Dean of Science and Mathematics Division
Dr. Amy Russians

Faculty

Adkins, Rhonda J, Professor, MA, Murray State University, 1985
Aho, 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
Allbritten, Cynthia H, Instructor, MSM, Chamberlain College of Nursing, 2013
Arnone, Samuel J, Assistant Professor, BS, Southern Illinois University, 1998
Black, Thomas M, Instructor, BSN, Murray State University, 2005
Blaine, Patricia A, Professor, MA, Fort Hays State University, 1981
Blankenship, Michelle, Instructor, MSN, Indiana University, 2013
Boyles, Esmarie, Instructor, PhD, Southern Illinois University, 2017
Broadbent, Kathryn P, Instructor, PhD, University of Louisville, 1988
Brown, Rebecca H, Associate Professor, PhD, Virginia Tech, 2009
Buchanan, Patricia A, Professor, MS, Murray State University, 2016
Burgess, Melissa A, Instructor, MS, Murray State University, 2000
Cahill, Charles S, Assistant Professor, MS, California Polytechnic State University, 2009
Calwell, Paul H, Assistant Professor, BS, Murray State University, 2016
Carrico, Mary C, Professor, MSN, Jacksonville University, 2016
Cates, Joel D, Associate Professor, MS, Murray State University, 2011
Coltharp, Heather L, Professor, MSE, University of Kentucky, 1999
Darnell, Laken N, Instructor, BSN, Murray State University, 2013
Day, Jamie A, Associate Professor, BIS, Murray State University, 2015
Dickerson, Craig T, Associate Professor, AAS, West Kentucky Community and Technical College, 2008
Donner, Jason W, Associate Professor, MA, Murray State University, 1995
Dossett, Kimberly M, Instructor, AAS, Community College of the Air Force, 1997
Dotson, Megan E, Associate Professor, MAE, Murray State University, 2010
Draffen, Carla K, Professor, MBA, Murray State University, 1987
Driver, Timmy E, Associate Professor, AAS, West Kentucky Community and Technical College, 2006
Duncan, Gwendolyn L, Instructor, MA, International Theological University, 2006
Durbin, Laura R, Associate Professor, MSN, Indiana Wesleyan University, 2013
Durham, Elizabeth A, Associate Professor, MA, Nazareth College, 1988
Engelland, Erik J, Instructor, AAS, West Kentucky Community and Technical College, 2010
Ewing, Cheryl L, Associate Professor, MSN, American Sentinel University, 2013
Fletcher, Patrick A, Associate Professor, BBA, University of Kentucky, 2001
Flyn, Maria K, Professor, MA, Murray State University, 1995
Gerick, Kevin L, Professor, PhD, Virginia Polytechnic Institute, 1993
Ghoshl, Shari D, Professor, MSN, Vanderbilt University, 1997
Goodaker, Gary W, Professor, MS, University of Illinois 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, Associate Professor, MS, Murray State University, 1990
Hassegawa, John S, Associate Professor, MFA, University of Oregon, 2000
Heflin, Connie S, Professor, MSN, University of Evansville, 1983
Henderson, Tyrus F, Associate Professor, MA, Murray State University, 2001
Henry, Greta G, Assistant Professor, MS, Murray State University, 2004
Hlinka, Karen F, Professor, EdD, University of Kentucky, 2012
Hobbs, Darren J, Assistant Professor, BS, Western Kentucky University, 2015
Hofer, William S, Associate Professor, AAS, West Kentucky Community and Technical College, 2011
Holland, Virgil T, Associate Professor, AS, Murray State University, 2012
Hopper, Carrie, Associate Professor, MS, Murray State University, 2008
Howard, William D, Assistant Professor, AAS, West Kentucky Community and Technical College, 2016
Hutchinson, Sharla E, Professor, MA, Western Kentucky University, 1980
Ishenf, Paula R, Associate Professor, MSN, University of Southern Indiana, 2010
Johnson, Jonathan B, Assistant Professor, MS, Bellevue University, 2012
Johnson, Margaret F, Associate Professor, MSN, University of Phoenix, May 2011
Jones, Latoya A, Associate Professor, DC, Life University, 2001
Kaplan, Mary E, Associate Professor, MS, Murray State University, 2011
Knapp, Jo A, Professor, MA, Murray State University, 1990
Lee, Bobby A, Professor, MS, Murray State University, 1995
Liu, Sarah S, Professor, PhD, Old Dominion University, 2006
Lyons, Vanessa E, Instructor, PhD, University of Missouri-Columbia, 2015
Mahoney, Joseph D, Professor, MA, Murray State University, 1990
Martin, Patricia A, Associate Professor, MSN, Murray State University, 2000
McDaniel, Tracy L, Professor, BS, Murray State University, 2009
McGillivary, Allison S, Associate Professor, MS, University of Colorado Denver, 1998
McMillen, Stephanie K, Professor, MS, Murray State University, 1996
Morgan, Tiffinee S, Professor, MA, Murray State University, 1998
Newborn, Bradley C, Assistant Professor, AAS, Western Kentucky Community and Technical College, 2013
Nickell, David L, Professor, MA, Western Kentucky University, 1982
Perry, Carolyn K, Professor, MBA, Thunderbird School of Global Management, 1980
Petitt, Christy L, Associate Professor, MS, University of Southern Indiana, 2007
Potter, Tammy F, Professor, MAEd, Murray State University, 1993
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, Assistant Professor, MS, Southern Illinois University at Carbondale, 2008
Reese, Gary L, Associate Professor, MPA, Murray State University, 1987
Roof, Sally, Professor, MS, Murray State University, 2002
Russell, Kimberly G, Associate Professor, MA, Southeast Missouri State University, 2000
Sahawneh, Faris G, Instructor, PhD, Northcentral University, 2016
Savage, Kimberly J, Instructor, BS, Murray State University, 2003
Senn, Catherine E, Professor, MS, Johns Hopkins University, 1995
Shurley, Britton M, Associate Professor, MFA, Indiana University, 2007
Simmons, Randall R, Professor, MFA, University of Cincinnati, 1995
Spelbring, Legatha F, Associate Professor, MA, Indiana State University, 2002
Stephenson, Lisa G, Professor, EdD, University of Kentucky, 2012
Stewart, Michael E, Professor, MS, Murray State University, 1977
Stoffel, Claudia A, Professor, MSN, Bellarmine College, 1992
Stringer, Amanda P, Instructor, AAS, Henderson Community College, 2002
Sullivan, Amy L, Librarian IV, MLS, University of Kentucky, 2017
Swain, Deborah J, Professor, BS, Murray State University, 2008
Tavares, 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, Sanci 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
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
Wallace, Stanley C, Assistant Professor, AA, University of Phoenix, 1996
Walters, Nacole G, Instructor, AAS, West Kentucky Community and Technical College, 2003
Ward, Shane R, Instructor, MFA, University of Chicago, 2012
Watkins, Gerald L, Professor, MBA, Murray State University, 1984
Witherspoon, Reta P, Assistant Professor, AAS, West Kentucky Community and Technical College, 2005
Wright, Kelly R, Professor, MS, Murray State University, 1984
Youngblood, Norita A, Professor, MS, Murray State University, 2004
Applying for Admission

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

Admission and Registration Procedures

• Prospective students visit the college’s website to complete an online application or contact the admission office of the college they wish to attend and request an admission application.
• The full and proper name of the student and KCTCS student ID number must be used in registration and for all other official purposes.
• Freshmen entering a college for the first time will be required to send an official copy of their high school transcript, GED, or state approved high school equivalency to the admission office of the college they plan to attend. Official high school transcripts submitted to KCTCS may be shared with all KCTCS Colleges.
• Applicants entering with transfer credit must have an official transcript from each college attended forwarded to the admission office of the college they plan to attend.
• Applicants should submit results of the American College Test® (ACT), KYOTE, or Scholastic Aptitude Test® (SAT). Applicants who have not taken the ACT® or other placement exam must complete a placement examination administered by any KCTCS college. For specific information regarding course placement, students should refer to the KCTCS Assessment and Placement Policy, which is available on the website at kctcs.edu, under “Students”, then “Academic Regulations”.
• Admission to a college does not guarantee admission to a specific program. Applicants seeking admission to an occupational/technical program at any KCTCS college should contact the admission office of the college of interest for information regarding any special requirements for program admission.
• Applicants must submit an application for admission and supporting documents prior to the first day of classes of the term or session for which the student plans to enroll. Some colleges, however, may have an earlier deadline date. Students should check with the admission office of the college they plan to attend for registration/application deadlines.
• A student who applies for admission to a KCTCS college will receive instructions to establish access to Student Self-Service. Student Self-Service allows a student access to many services such as registration, grades, class schedule, financial aid awards, bill payment and many other services.
• All enrolled KCTCS students will be given access to a KCTCS- assigned email account. Official communication from faculty and student service personnel will be sent to this address. Students will continue to have access to this account as long as they are enrolled.

Students should contact the Admissions Office of the KCTCS college they wish to attend for instructions or assistance. While provisions may be provided, students will not be permitted to register for subsequent semesters without all official required documents.

Non-Degree/Non-Credential Students

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

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

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

High School Students

The condition of graduation from high school may be waived for a student currently enrolled in high school subject to the following guidelines. All applicants shall submit:
• a KCTCS application for admission by the appropriate deadline
• the results of the ACT®, SAT®, KYOTE, and/or other approved placement scores in accordance with KCTCS Assessment and Placement Policy.

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

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

Second Chance Students

A student who has previously attended a college or university – other than a college in the Kentucky Community and Technical College System – and who has less than an overall grade-point average of 2.0 on a 4.0 scale in all course work attempted, may be considered for admission on probation. Provided the applicant demonstrates both of the following:
• has not enrolled at a college or university for at least one 16-week semester, and
• can demonstrate potential for success.

Transient/Visiting Students

A student may be admitted as a transient or visiting student. However, the student’s parent college must certify each term that the student is enrolled or eligible to enroll at parent institution.
International Students

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

Readmission after Two or More Years: Academic Bankruptcy

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

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

Previous College Work

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

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

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

Change of Program

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

KCTCS Assessment and Placement Policy

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

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

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

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

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

*Certificate programs that require 18 credits or less are exempt from the Assessment and Placement Policy. However, applicable course prerequisites still apply.
# Mathematics Course Placement

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS&lt;sup&gt;1&lt;/sup&gt; Algebra Domain</th>
<th>ASSET&lt;sup&gt;1&lt;/sup&gt;</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>Wonderlic</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 or higher</td>
<td>610 or higher</td>
<td>83-99</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>MAT 170, MAT 175 or any course listed below</td>
</tr>
<tr>
<td>22 or higher</td>
<td>510 or higher</td>
<td>50-99</td>
<td>El. Alg. 46-55</td>
<td>Int. Alg. 43-55</td>
<td>CA 14 or higher</td>
<td>NA</td>
<td>Quantitative 330 or higher</td>
</tr>
<tr>
<td>19-21</td>
<td>460 or higher</td>
<td>36-49</td>
<td>El. Alg. 41-45</td>
<td>Int. Alg. 39-42</td>
<td>CA 7-13 or MP 22 or higher</td>
<td>NA</td>
<td>Quantitative 288 or higher</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td>El. Alg. 39-40</td>
<td>Int. Alg. 36-38</td>
<td>MP 18-21</td>
<td>NA</td>
<td>Quantitative 275 or higher</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td>El. Alg. 34-38</td>
<td>Int. Alg. 33-35</td>
<td>MP 15-21</td>
<td>NA</td>
<td>Quantitative 265 or higher</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td>El. Alg. 27-38</td>
<td>Int. Alg. 26-35</td>
<td>MAT 055= MP 6-11</td>
<td>MAT 065= MP 12-17</td>
<td>NA</td>
</tr>
</tbody>
</table>

**COMPASS Pre-algebra Domain**<sup>1</sup>

| | | | | | | | |
| 42-99 | N. Skills 38-55 | MP 12-17 | 10.2 -12.9 | Quantitative 250 or higher | MAT 062, MAT 065, MAT 075 or any course listed below |
| 24-41 | N. Skills 25-37 | MP 6-11 | 6.4-.10.1 | Quantitative 200 or higher | MAT 055 |
| Less than 24 | N. Skills 23-24 | MP 0-5 | Less than 6.4 | Quantitative less than 200 | ARI 030 or Refer to Adult Basic Education |

<sup>1</sup>MAT 100 or other co-requisite support are options for supplementary academic support for MAT 150.

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

<sup>3</sup>CMPASS and ASSET will not be administered after November 30, 2016.
### Reading Course Placement

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>Wonderlic</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 20 or higher</td>
<td>470 Critical Reading</td>
<td>85-100</td>
<td>44-55</td>
<td>20 or higher</td>
<td>12.2-12.9</td>
<td>Verbal 325 or higher</td>
<td>No reading required</td>
</tr>
<tr>
<td>19</td>
<td>83-84</td>
<td>43</td>
<td>11.4-12.1</td>
<td>NA</td>
<td>Entry-level courses with concurrent enrollment in RDG 185, or supplemental instruction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 or higher</td>
<td>70-82</td>
<td>38-42</td>
<td>9.0-11.3</td>
<td>NA</td>
<td>RDG 0302 or DRE 0302</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 or higher</td>
<td>49-69</td>
<td>32-37</td>
<td>5.5-8.9</td>
<td>NA</td>
<td>RDG 020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48 and below</td>
<td>No score available</td>
<td>5.4 and below</td>
<td>Verbal 179 or less</td>
<td>Refer to Adult Basic Education for Reading</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

### English Course Placement

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

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

### Co-requisite Model

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

Tuition and Charges

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

Tuition and charges are assessed at the time of registration and based upon a per credit hour rate for all KCTCS colleges regardless of whether the courses are taken during the day, evening, and/or on weekends, and regardless of whether the courses are taken for credit or audit purposes. Tuition rates vary based upon Kentucky resident or non-Kentucky resident status. Qualifying students living in out of state counties that are contiguous to Kentucky may qualify for a reduced tuition rate. Fractional credit hour tuition and charges are assessed for fractional credit offerings (i.e., a student taking ¼ credit hour course would be assessed ¼ rate of student with same residency taking a 1 credit hour course). Tuition and charges are refundable 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 2017-2018 academic year. Questions regarding fees may be directed to your college’s business office.

**Charges for Customized Course Offerings**

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

**Charges for Services**

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

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

**Charges for Special Examination**

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

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

**Cancellation of Registration for Non-Payment of Charges**

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

**Payment Plan Options**

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

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

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

Total payment of the balance of tuition and charges must be made by the required date. Contact your local college business office for specifics.
Last Day to Enter an Organized Class

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

16-week Session - by the close of business of the 7th calendar day of the session.

8-week Session - by the close of business of the 4th calendar day of the session.

6-week Session - by the close of business of the 3rd calendar day of the session.

5-week Session – by the close of business of the 2nd calendar day of the session.

4-week Session - by the close of business of the 1st calendar day of the session.

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

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

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

Refunds

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

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

KCTCS Online Learn by Term Courses*

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

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

<table>
<thead>
<tr>
<th>Timeframe for Refunds*</th>
<th>100%</th>
<th>50%</th>
<th>No Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session</td>
<td></td>
<td></td>
<td></td>
</tr>
<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>
<tr>
<td>Irregular</td>
<td>Prorated</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

KCTCS Online Learn on Demand

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

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

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

*Calendar days of the session, including all Saturdays and Sundays, but excluding KCTCS recognized holidays.
<table>
<thead>
<tr>
<th>Duration</th>
<th>Within</th>
<th>3rd-9th days</th>
<th>After 9th day</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 week</td>
<td>2nd day</td>
<td>4th-7th days</td>
<td>After 7th day</td>
</tr>
<tr>
<td>4 week</td>
<td>1st day</td>
<td>2nd-5th days</td>
<td>After 5th day</td>
</tr>
<tr>
<td>3 week</td>
<td>1st day</td>
<td>2nd-4th days</td>
<td>After 4th day</td>
</tr>
<tr>
<td>2 week</td>
<td>1st day</td>
<td>2nd-2nd days</td>
<td>After 2nd day</td>
</tr>
</tbody>
</table>

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

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

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**Financial Delinquency**

Any student who is delinquent in financial obligations to a college, or any division or organization of a college, shall not be allowed to register for future terms, receive transcripts, transfer credits to another institution, 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 through the FAFSA site, www.fafsa.ed.gov. Applying for student financial aid is free. You will need the appropriate tax forms for you and your spouse or you and your parents (1040, 1040 A, 1040EZ, or 1040 Telefile). If you did not file a tax return you will need documentation of all sources of income, taxed or untaxed.

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

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

Dual Enrollment/Consortium Agreements

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

Federal Student Loans

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

State Programs

The Kentucky Higher Education Assistance Authority (KHEAA) administers a number of state supported student financial aid programs. Among those offered are: College Access Program (CAP), Kentucky Educational Excellence Scholarship (Kees), 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 a number of tuition scholarships for Kentucky residents who meet specific eligibility criteria. Included in these are scholarships for: KCTCS Faculty and Staff; Kentucky residents age 65 or older; survivors of police officers and firefighters killed in duty; dependents of disabled police officers and firefighters; teachers; foster and adopted children; veterans; and children, step-children, and/or orphans of veterans killed or disabled in action.

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

KCTCS and College Scholarships for Kentucky Residents

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

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

College Tuition Scholarships

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

Third Party Assistance Programs

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

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

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

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

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

Student and Academic Services

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

Counseling

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

Placement

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

Testing

Many of the KCTCS colleges have been designated as testing centers for administering scholastic examinations. Examinations given at the colleges include the American College Test® (ACT), a Career Planning Program (CPP), 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, programmed texts, sound pages, and computer-driven learning modules.

Libraries

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

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

The KCTCS Library Catalog (opac.kctcs.edu) provides information on more than 520,000 titles owned or licensed by the libraries. Users can access it and licensed electronic resources from library web pages 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 seminars
- Work study opportunities both on and off campus

Contact your college RTW Coordinator to determine if you are eligible for RTW services.
Work and Learn

Ready to Work (RTW) 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.

KY Adult Education Services

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

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

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

Policies and Procedures

Right to Know

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

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

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

Student Rights and Responsibilities

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

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

Drug-Free Policy

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

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

Sexual Harassment

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

Grievance Procedures

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

Student Organizations

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

National Vocational Technical Honor Society

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

Phi Theta Kappa is the international honor society of two-year colleges. Each college has its own chapter of this organization. The purpose of Phi Theta Kappa is to recognize and encourage scholarship among two-year college students. To achieve this purpose, Phi Theta Kappa and its 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”. Student Records Maintenance

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

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

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

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

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

Appeal

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

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

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

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

Academic Advising

Academic advising is an essential element of the total educational experience and is available to every KCTCS student. Whether a student is seeking credentials exclusively from KCTCS or plans to use the education obtained at KCTCS to pursue a higher degree at another institution, academic advising is critical. Advisors strive to assist students in obtaining accurate information about academic requirements, long- and short-term educational planning, and resources available to assist students in advancing their academic and professional goals. Students with specific plans should contact an advisor at the local KCTCS college as soon as these goals are identified for the most effective advising and planning.

In order to receive academic advising students should consult the local KCTCS college for information. Students can also refer to the Transfer Contacts listed on pages 59 to 61 on the KCTCS website. There are a number of people available to assist students with information about planning and resources for transferring to a bachelor’s degree program. A list of these transfer agreements can be found at the KCTCS website: kctcs.edu Search words: Transfer Agreements.

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

General Education Certifications

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

Fully General Education Certified

Students who have successfully completed a general education program of 33 credit hours (a minimum of 15 hours completed with KCTCS) will be “fully general education certified.” Students may then transfer these hours altogether as a block. Students must fulfill any additional 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

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

Transfer Contacts and Services

There are a number of people available to assist students with information about planning and resources for transferring to a bachelor’s degree program. Students who are interested in transferring, or who just have questions about transferring, are encouraged to seek information as soon as possible. Each KCTCS college provides transfer services and has at least one transfer contact to assist students. Each public and private postsecondary institution in Kentucky also has staff to provide information to KCTCS students about transferring to that specific institution.

Students are encouraged to talk with Transfer Contacts at their KCTCS college as well as Transfer Contacts at the college or university to which they want to transfer. A short list of public university Transfer Contacts is included below for quick reference. A complete list of Transfer Contacts at each KCTCS college and public and private colleges/ universities in Kentucky is available at the KCTCS website: kctcs.edu Search words: Transfer Contacts.

KCTCS Transfer Contacts

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

Ashland Community and Technical College

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

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

Sheila Marcum
Director of Advising and Retention
1400 College Dr.
Ashland, KY 41101
606-326-2418
sheila.marcum@kctcs.edu

Big Sandy Community and Technical College

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

Transfer Contacts

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

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

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

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

Bluegrass Community and Technical College

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

Transfer Contacts

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

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

Elizabethtown Community and Technical College

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

Transfer Contacts

Mary Byerley-Shetty
Coordinator of Transfer Services
Elizabethtown Community and Technical College
610 College Street Road
Elizabethtown, KY 42701
270.706.8751

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

Gateway Community and Technical College

Transfer Services
gw-transfer@kctcs.edu
Edgewood Campus, E105M Student Services Center Building
Student Support Services (TRIO)
gw-sssoffice@kctcs.edu
Urban Metro Campus, 214 Two Rivers Building

Transfer Contacts

Darrin McMillen
Transfer Advisor
790 Thomas More Parkway
Edgewood Campus
Phone: 859-815-7642
darrin.mcmillen@kctcs.edu

Colleen Kane
Director, Student Support Services (TRIO)
Urban Campus - Two Rivers Building
Phone: 859-442-1614
Fax: 859-442-1621
colleen.kane@kctcs.edu

Hazard Community and Technical College

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

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

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

Henderson Community College

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

Transfer Contact

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

Hopkinsville Community College

Transfer Services
Student Transition Center
Main Campus, Technology Center Building

Transfer Contact

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

Jefferson Community and Technical College

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

Transfer Contacts

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

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

Madisonville Community College

Transfer Services
Main Campus, John H Gray Building
Enrollment Center

Transfer Contact

Stephanie Self
Transfer Coordinator
2000 College Drive
Madisonville, KY 42431
(270) 824-1827
(866) 227-4812
stephanie.self@kctcs.edu

Maysville Community and Technical College

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

Transfer Contact

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

Owensboro Community and Technical College

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

Transfer Contacts

Katie Ballard
Career Resource and Transfer Coordinator
TRAC CENTRAL, LRC Rm 206
4800 New Hartford Road
Owensboro, KY 42303
(270) 686-4529
katie.ballard@kctcs.edu

Christy Ellis
Registrar
Owensboro Community and Technical College
4800 New Hartford Road
Owensboro, KY 42303
(270) 686-4536
(866) 755-6282
christy.ellis@kctcs.edu

Somerset Community College

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

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

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

Southcentral Kentucky Community and Technical College
Transfer Services
Student Success Center
Main Campus, Building A

Transfer Contacts
Shawn Stovall
Director, Career and Academic Planning
Southcentral Kentucky Community and Technical College
1845 Loop Drive
Bowling Green, KY 42101
(270) 901-1188
shawn.stovall@kctcs.edu

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

Sherita Clark
Success Coach
Southcentral Kentucky Community and Technical College
1845 Loop Drive
Bowling Green, KY 42101
(270) 901-1242
sherita.clark@kctcs.edu

Southeast Kentucky Community and Technical College
Transfer Services
Transfer Assistance Center

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

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

West Kentucky Community and Technical College
Transfer Services
Advising Center
Main Campus, Anderson Technical Building
WKCTC-TransferCenter@kctcs.edu

Transfer Contact
Lori Johnson
Transfer Coordinator
West Kentucky Community and Technical College
106 Anderson Bldg., P.O. Box 7380
Paducah, KY 42002
(270) 534-3187
lori.johnson@kctcs.edu

Public University Transfer Contacts
Eastern Kentucky University
Nicole McGrew
Transfer Admissions & Articulation Coordinator
859-246-6430
859-248-4340
nicole.mcgrew@eku.edu

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

Kentucky State University
Tava Clay
KSU Transfer Coordinator
(859) 246-6290
tava.clay@kysu.edu

Morehead State University
Brad Bennington
Assistant Registrar for Degree Audit & Transfer Articulation
606-783-5246/2008
b.bennington@morehead-st.edu

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

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

Northern Kentucky University
Matt Elrod
Transfer Coordinator
859-572-7524 (800) 637-9948
eelrodma@nku.edu
Credit for External Experiences

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

Advanced Placement Program

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

Guidelines for Advanced Placement Credit

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

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

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

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

**American Council on Education**

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

**Articulation Agreements**

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

**Certified Professional Secretary Examination**

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

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

Recommended credit total: 20
Total credit: 21

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

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

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 General Examinations</th>
<th>Scaled Score to Earn Credit</th>
<th>Equivalent Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Languages</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>70 or above</td>
<td>FRE 201, 202</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>College Level German Language</td>
<td>50–69</td>
<td>GER 201</td>
<td>3</td>
</tr>
<tr>
<td>70 or above</td>
<td>GER 201, 202</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>College Level Spanish Language</td>
<td>50–69</td>
<td>SPA 201</td>
<td>3</td>
</tr>
<tr>
<td>70 or above</td>
<td>SPA 201, 202</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>History and Social Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Government</td>
<td>50</td>
<td>POL 101</td>
<td>3</td>
</tr>
<tr>
<td>History of the United States I</td>
<td>50</td>
<td>HIS 108</td>
<td>3</td>
</tr>
<tr>
<td>History of the United States II</td>
<td>50</td>
<td>HIS 109</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Psychology</td>
<td>50</td>
<td>PSY 110</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>50</td>
<td>ECO 202</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>50</td>
<td>ECO 201</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>50</td>
<td>SOC 101</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization I: Ancient Near East to 1648</td>
<td>50</td>
<td>HIS 104</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization II: 1648 to the Present</td>
<td>50</td>
<td>HIS 105</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences and History</td>
<td>50</td>
<td>SOC 101</td>
<td>3</td>
</tr>
<tr>
<td>Human Growth and Developmental</td>
<td>50</td>
<td>AHS 100</td>
<td>2</td>
</tr>
<tr>
<td>Science and Mathematics</td>
<td>50</td>
<td>MAT 174 or MAT 175</td>
<td>4, 5</td>
</tr>
<tr>
<td>Calculus</td>
<td>50</td>
<td>MAT 146</td>
<td>3</td>
</tr>
<tr>
<td>College Mathematics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course</td>
<td>Score</td>
<td>Credit Awarded</td>
<td>Credit Statement</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------</td>
<td>----------------</td>
<td>------------------</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50</td>
<td>MAT 150</td>
<td>3</td>
</tr>
<tr>
<td>Pre-calculus</td>
<td>50</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>6</td>
</tr>
<tr>
<td>Natural Science</td>
<td>50</td>
<td>BIO 112</td>
<td>3</td>
</tr>
</tbody>
</table>

### Business and Computer Applications

<table>
<thead>
<tr>
<th>Course</th>
<th>Score</th>
<th>Credit Awarded</th>
<th>Credit Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Accounting</td>
<td>50</td>
<td>ACC 201, 202</td>
<td>6</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>50</td>
<td>BAS 283</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>50</td>
<td>BAS 282</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Business Law</td>
<td>50</td>
<td>BAS 267</td>
<td>3</td>
</tr>
<tr>
<td>Information Systems and Computer Applications</td>
<td>50</td>
<td>TRN 146</td>
<td>3</td>
</tr>
</tbody>
</table>

### English and Humanities

<table>
<thead>
<tr>
<th>Course</th>
<th>Score</th>
<th>Credit Awarded</th>
<th>Credit Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Literature</td>
<td>50</td>
<td>ENG 251</td>
<td>3</td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>50</td>
<td>ENG 161</td>
<td>3</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>ENG 161</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>50</td>
<td>HUM 120</td>
<td>3</td>
</tr>
<tr>
<td>College Composition, College Composition Modular</td>
<td>50</td>
<td>ENG 101</td>
<td>3</td>
</tr>
</tbody>
</table>

### Guidelines for International Baccalaureate (IB)

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

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

### Industry Standard Certification Examinations

#### Military Service Experience

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

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

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

Special Exam: STEP or Challenge

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

Dual Credit

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

Non-Classroom Learning Experiences

Work Based Learning Experiences

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

Service Learning

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

Credit for Prior Learning

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

Modularized Credit Courses

Some KCTCS courses are available in a modularized credit format allowing students to register for courses that are components of the full (or "parent") course. For example, BAS 212 may be taken as a three credit course or students may enroll in BAS 2121, BAS 2122, and BAS 2123 as separate courses which are the equivalent of BAS 212. The sum of the modular credit courses is equal to the full course. The student transcript will display the modularized credit course in the term the student earned the credit and once all components of the full course are earned, the full course will appear on the transcript. Modular 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 2011, 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 series to fulfill General Education category requirements, e.g., ECO 101 – 3 credits meets the Social & Behavioral Sciences category requirement. If ECO 101 has three modules, ECO 1011, 1012, and 1013, all three ECO 101 modules must be completed before the Social & Behavioral Sciences category requirement will be fulfilled. The student cannot take three modularized courses from three different courses to meet the general education category requirement, e.g., ANT 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 five-week session, eight hours in a six-week session, 12 hours in an eight-week session, and fifteen hours in the twelve-week session.

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

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

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

- **A:** represents exceptionally high achievement. It is valued at four grade points for each credit hour in non-remedial and non-developmental courses.
- **B:** represents high achievement. It is valued at three grade points for each credit hour in non-remedial and non-developmental courses.
- **C:** represents satisfactory achievement. It is valued at two grade points for each credit hour in non-remedial and non-developmental courses.
- **D:** represents the minimum achievement for credit. It is valued at one grade point for each credit hour in non-remedial and non-developmental courses.
- **E:** represents unsatisfactory achievement and indicates failure in the course. It is valued at zero credit hours and zero grade points in non-remedial and non-developmental courses. Credit may be obtained by repeating the entire course.
- **F:** represents unsatisfactory achievement in a course taken on a Pass-Fail basis. It has no value in computing the grade point average. Credit may only be obtained by repeating the entire course. This grade may be used for developmental courses.
- **AU (Audit):** has no value in computing grade-point average. A student who has been admitted to the college may elect to enroll in a course(s) as an auditor, except in selective admissions programs. Auditing courses in a selective admissions program requires admission to the program and availability of space in the courses. With few exceptions, any change from audit to credit by a student fully admitted to a college must be accomplished by the last date to enter a class and any change from credit to audit must be made by mid-term of the semester or session in which the student is enrolled. An audited class may be taken for credit at a later date. Anyone who desires to audit a class must be admitted to the college and officially registered for the course.
- **I:** means that part of the work of the course remains unfinished. It shall be given only when there is a reasonable possibility that a passing grade will result from completion of the work. The instructor and student will discuss the requirements for completion of course with the time limit for completion not to exceed a maximum of one year; failure to do so will result in an automatic change of grade from I to E. Each college shall maintain a record of incomplete grades recorded in courses of that college. This record, completed by the instructor at the time the I grade is reported, shall include: (1) the name and number of the student, (2) the course number and hours of credit, (3) semester or session and year of enrollment, (4) signature of the instructor, (5) a brief statement of the reason(s) for recording the incomplete grade, and (6) an adequate guide for removal of the incomplete grade. In the instructor’s absence, the division chairperson (or designee), shall forward to the college president (or designee) the appropriate letter grade to replace the incomplete grade.

**Failing Grades**

- **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
A student who has been readmitted after having remained out of the KCTCS colleges 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.

Repealing a Course

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

Final Exams

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

Dean’s List

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

Academic Bankruptcy (Readmission after Two or More Years)

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

A student who has completed a credential and re-enrolls may not apply the academic bankruptcy rule to courses taken for the credential already completed. A student may only use the academic bankruptcy option once.

Policies Related to Graduation

Graduation Requirements

For the Associate in Arts, Associate in Science, Associate in Fine Arts, and Associate in Applied Science degrees, regardless of the time the student has attended the college, at least 25 percent of the approved curriculum credits must be completed at the KCTCS college granting the degree. For a certificate or diploma, 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 seeking Associate in Arts, Associate in Science, Associate in Fine Arts, or Associate in Applied Science degrees or Diplomas must have a minimum cumulative GPA of 2.0 in order to be eligible for graduation. To be eligible for a certificate, a student must satisfactorily complete an approved curriculum with a grade point average of at least 2.0 in the courses required for the certificate. In order to be eligible to receive KCTCS credentials, students must satisfactorily complete the minimum number of credits required for that credential, including the general education requirements as specified in the KCTCS Board of Regents Policies 4.11 and 4.12 and program requirements, with a cumulative grade point average of at least 2.0 and complete the college’s application for graduation within the posted deadline for the term. To be eligible for:

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

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

Graduation With Honors

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

Multiple Associate Degrees

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

**Kentucky Community and Technical College Guarantee**

KCTCS colleges offer employers of graduates the following guarantee:

The KCTCS colleges guarantee employers that graduates have demonstr-
ated competence in the skills listed on the approved task lists that rep-
resent industry validated specifications for each occupational program.
Should a former student be considered by the employer to be perform-
ing 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 en-
hances economic development efforts by guaranteeing Kentucky’s busi-
nesses and industries access to a skilled work force.

**Academic Credentials Awarded**

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

**General Education Core Requirements**

<table>
<thead>
<tr>
<th></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>3 credit hours</td>
<td></td>
</tr>
<tr>
<td><strong>Natural Sciences</strong></td>
<td>3 credit hours</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal General Education Core</strong></td>
<td>33 credit hours</td>
<td>33 credit hours</td>
</tr>
</tbody>
</table>

**Associate in Arts Requirements 12 credit hours**

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

**Associate in Science Requirements 12 credit hours**

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

**Electives 15 credit hours**

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

**Total Credit Hours 60 Credit Hours**

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

**Total General Education 24 credit hours**

**Social and Behavioral Sciences 6 credit hours**

**Fine Arts Core**

**Sub-Total 18 credit hours**

**Concentration**

**Sub-Total 18 credit hours**

**Total 60 credit hours**

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

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

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

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

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

**Associate in Fine Arts (AFA)**

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

**General Education Component:**

**Written and Oral Communications 9 credit hours**

Students who complete ENG 105 must take an additional 3 credit hours of General Education from any of the General Education categories.

**Oral Communications**

**Arts and Humanities**

One course must be selected from Humanities and one course from Heritage.

**Quantitative Reasoning**

**Natural Sciences**

One science course must include a laboratory experience.

**Social and Behavioral Sciences**

Two disciplines must be represented and different from those in the Arts and Humanities category.

**Quantitative Reasoning OR**

**Natural Sciences**

**Subtotal General Education Core 24 credit hours**

**Fine Arts Core**

**Sub-Total 18 credit hours**

**Total General Education 24 credit hours**

**Fine Arts Core**

**Sub-Total 18 credit hours**

**Total 60 credit hours**

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

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

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

Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.
Associate in 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 Secretary’s Commission on Achieving Necessary Skills (SCANS) report that are critical to entry-level workforce success for persons prepared at the certificate level and associated with the field. If standardized external exams are not available in the field of study, certificates prepare students at skill levels expected of employees in an occupation found in the local economy.

1. Certificates will address one or more general education competencies.
2. Certificate curricula will be approved through the KCTCS Curriculum process.
3. Certificates will be applicable toward at least one associate degree.

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

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

Foundation Skills

Basic Skills: reading, writing, arithmetic and mathematics, listening, and speaking;
Thinking Skills: thinking creatively, making decisions, solving problems, knowing how to learn, and reasoning;
Personal Qualities: individual responsibility, self-esteem, sociability, self-management, and integrity/honesty.

Competencies

Resources: allocating time, money, materials, space, and staff;
Interpersonal Skills: working on teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds;
Information: acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information;
Systems: understanding social, organizational, and technological systems, monitoring and correcting performance, and designing or improving systems;
Technology: selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies.

Total Credit Hours 12 – 30
Graduation requirements: (1) minimum grade of C in each course required for the certificate and (2) minimum of 25% of certificate requirements earned at the institution awarding the degree.

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

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

Specialized Training
Adult Agriculture
Short-term adult upgrade classes in agriculture are offered at selected sites. These classes are designed to help young and adult farmers, as well as individuals employed in agribusiness, keep up with the constantly changing technology in the field of agriculture. The program provides on-the-farm and on-the-job supervision year-round with organized instructional classes conducted in the late fall and winter. Apprenticeship

Apprenticeship program registration is the responsibility of the Kentucky State Apprenticeship Council in cooperation with the United States Department of Labor, Bureau of Apprenticeship Training. Application must be made through an employer, a labor union or a joint apprenticeship committee. Verify with the KCTCS college that it provides the minimum 144 hours per year of supplemental related instruction required of the apprenticeship program. Additional information may be obtained by calling the Kentucky Apprenticeship Council or the United States Department of Labor, Bureau of Apprenticeship Training.

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

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

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

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

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

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

For specific program information see page 152-153.

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

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

Jefferson Community & Technical College (Area 6)
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 Millend Trail Road
Ashland, KY 41102
(606) 585-0255
mark.hammond@kctcs.edu
Counties: Boyd, Carter, Greenup, Lawrence

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

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

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

Somerset Community College (Area 14)
Josh Whitis, Coordinator
219 Industry Dr
Jamestown, KY 42629
(606) 219-2243
josh.whitis@kctcs.edu
Counties: Adair, Casey, Clinton, Cumberland, Green, McCrackey, 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
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 3
  - OST 108 Editing Skills for Office Professionals 3
  - Any Writing course approved for the AAS, AA, or AS

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

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

### Social and Behavioral Sciences
- **Diploma**
  - EFM 100 Personal Financial Management 3
  - Any Social Interaction course approved for the AAS, AA, AS, or AFA

### Natural Sciences
- **Diploma**
  - PHX 150 Introductory Physics 3
  - Any Science course approved for the AAS, AA, AS, or AFA

### Academic Services
- **Academic Services**
  - 73
Arts and Humanities competency, but may not be used to fulfill both general education categories.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 235</td>
<td>Food and Culture</td>
<td>3</td>
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<tr>
<td>ANT 240</td>
<td>Introduction to Archaeology</td>
<td>3</td>
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<tr>
<td>ANT 241</td>
<td>Origins of Old World Civilizations</td>
<td>3</td>
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<tr>
<td>ANT 242</td>
<td>Origins of New World Civilizations</td>
<td>3</td>
</tr>
<tr>
<td>COM 101</td>
<td>Introduction to Communications</td>
<td>3</td>
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<tr>
<td>COM 249</td>
<td>Mass Media Communication</td>
<td>3</td>
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<tr>
<td>COM 254</td>
<td>Intro to Intercultural Communications</td>
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<tr>
<td>ECO 101</td>
<td>Contemporary Economic Issues</td>
<td>3</td>
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<td>ECO 150</td>
<td>Introduction to Global Economics</td>
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<td>ECO 201</td>
<td>Principles of Microeconomics</td>
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<tr>
<td>HUM 253</td>
<td>Human Sexuality: Development, Behavior, and Attitudes</td>
<td>3</td>
</tr>
<tr>
<td>FLK 280</td>
<td>Cultural Diversity in the US</td>
<td>3</td>
</tr>
<tr>
<td>GEN 140</td>
<td>Development of Leadership</td>
<td>3</td>
</tr>
<tr>
<td>GEN 125</td>
<td>Lifelong Learning Applications</td>
<td>3</td>
</tr>
<tr>
<td>GEO 152</td>
<td>Regional Geography of the World</td>
<td>3</td>
</tr>
<tr>
<td>GEO 160</td>
<td>Lands and Peoples of the Non-Western World</td>
<td>3</td>
</tr>
<tr>
<td>GEO 172</td>
<td>Human Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEO 210</td>
<td>Pollution, Hazards and Environmental Management</td>
<td>3</td>
</tr>
<tr>
<td>GEO 222</td>
<td>Cities of the Worlds</td>
<td>3</td>
</tr>
<tr>
<td>GEO 240</td>
<td>Geography and Gender</td>
<td>3</td>
</tr>
<tr>
<td>HUM 135</td>
<td>Introduction to Native American Literature</td>
<td>3</td>
</tr>
<tr>
<td>HUM 202</td>
<td>Survey of Appalachian Studies I</td>
<td>3</td>
</tr>
<tr>
<td>HUM 203</td>
<td>Survey of Appalachian Studies II</td>
<td>3</td>
</tr>
<tr>
<td>HUM 221</td>
<td>Appalachian Seminar</td>
<td>3</td>
</tr>
<tr>
<td>POL 101</td>
<td>American Government</td>
<td>3</td>
</tr>
<tr>
<td>POL 210</td>
<td>Introduction to European Politics: East and West</td>
<td>3</td>
</tr>
<tr>
<td>POL 212</td>
<td>Culture and Politics in the Third World</td>
<td>3</td>
</tr>
<tr>
<td>POL 235</td>
<td>World Politics</td>
<td>3</td>
</tr>
<tr>
<td>POL 255</td>
<td>State Government</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 180</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>PSY 185</td>
<td>Human Potential</td>
<td>3</td>
</tr>
<tr>
<td>PSY 230</td>
<td>Psychosocial Aspects of Death and Dying</td>
<td>3</td>
</tr>
<tr>
<td>PSY 223</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 297</td>
<td>Psychology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>RAE 120</td>
<td>Introduction to Chinese Culture</td>
<td>3</td>
</tr>
<tr>
<td>REL 101</td>
<td>Introduction to Religious Studies</td>
<td>3</td>
</tr>
<tr>
<td>REL 130</td>
<td>Introduction to Comparative Religion</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 151</td>
<td>Social Interaction</td>
<td>3</td>
</tr>
<tr>
<td>SOC 152</td>
<td>Modern Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SOC 220</td>
<td>The Community</td>
<td>3</td>
</tr>
<tr>
<td>SOC 235</td>
<td>Inequality in Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 249</td>
<td>Media, Society, and Culture</td>
<td>3</td>
</tr>
<tr>
<td>SOC 260</td>
<td>Population, Resources and Change</td>
<td>3</td>
</tr>
<tr>
<td>SPA 115</td>
<td>Hispanic Culture: (Country or Region)</td>
<td>3</td>
</tr>
<tr>
<td>SUS 101</td>
<td>Introduction to Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>SUS 102</td>
<td>Sustainable Built Environment</td>
<td>3</td>
</tr>
<tr>
<td>SUS 201</td>
<td>Sustainable Societies</td>
<td>3</td>
</tr>
<tr>
<td>SUS 202</td>
<td>Sustainable Urban Systems</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>The Family</td>
<td>3</td>
</tr>
<tr>
<td>WGS 200</td>
<td>Introduction to Women’s and Gender Studies in the Social Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLK 276</td>
<td>Introduction to Folk Studies</td>
<td>3</td>
</tr>
<tr>
<td>HIS 101</td>
<td>World Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 102</td>
<td>World Civilization II</td>
<td>3</td>
</tr>
<tr>
<td>HIS 104</td>
<td>A History of Europe Through the Mid-Seventeenth Century</td>
<td>3</td>
</tr>
<tr>
<td>HIS 105</td>
<td>A History of Europe from the Mid-Seventeenth Century to the Present</td>
<td>3</td>
</tr>
<tr>
<td>HIS 106</td>
<td>Western Culture: Science and Technology I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 107</td>
<td>Western Culture: Science and Technology II</td>
<td>3</td>
</tr>
<tr>
<td>HIS 108</td>
<td>History of the U.S. Through 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIS 109</td>
<td>History of the U.S. Since 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIS 120</td>
<td>The World at War 1939-45</td>
<td>3</td>
</tr>
<tr>
<td>HIS 202</td>
<td>History of British People to the Restoration</td>
<td>3</td>
</tr>
<tr>
<td>HIS 203</td>
<td>History of British People since the Restoration</td>
<td>3</td>
</tr>
<tr>
<td>HIS 206</td>
<td>History of Colonial Latin America</td>
<td>3</td>
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<tr>
<td>HIS 297</td>
<td>History of Modern Latin America</td>
<td>3</td>
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<tr>
<td>HIS 215</td>
<td>Historical Perspectives on Prisons and Policed Work</td>
<td>3</td>
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<tr>
<td>HIS 220</td>
<td>Native American History: Pre-Contact to 1865</td>
<td>3</td>
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<tr>
<td>HIS 221</td>
<td>Native American History: 1865 to Present</td>
<td>3</td>
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<tr>
<td>HIS 240</td>
<td>History of Kentucky</td>
<td>3</td>
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<tr>
<td>HIS 247</td>
<td>History of Islam and Middle East Peoples, 500-1250 AD</td>
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<tr>
<td>HIS 248</td>
<td>History of Islam and Middle East Peoples, 1250 to Present</td>
<td>3</td>
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<tr>
<td>HIS 254</td>
<td>History of South America</td>
<td>3</td>
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<tr>
<td>HIS 260</td>
<td>African American History to 1865</td>
<td>3</td>
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<tr>
<td>HIS 261</td>
<td>African American History 1865 - Present</td>
<td>3</td>
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<tr>
<td>HIS 265</td>
<td>History of Women in America</td>
<td>3</td>
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<tr>
<td>HIS 270</td>
<td>Ancient Europe</td>
<td>3</td>
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<tr>
<td>HIS 271</td>
<td>Medieval Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIS 295</td>
<td>East Asia to 1800</td>
<td>3</td>
</tr>
<tr>
<td>HIS 296</td>
<td>History of Asia II</td>
<td>3</td>
</tr>
</tbody>
</table>

### Humanities Diploma, AAS, AA, AS, AFA

1. AN 130/REL 130
2. ANT 130
3. ART 100
4. ART 104
5. ART 105
6. ART 106
7. ART 108
8. ART 201
9. ART 202
10. ART 203
11. ART 204
12. ART 205
13. ART 234
14. ART 235
15. ART 236
16. ART 270
17. ART 271
18. ENG 135
19. ENGL 161
20. ENGL 221
21. ENGL 222
22. ENGL 230
23. ENGL 231
24. ENGL 232
25. ENGL 233
26. ENGL 234
27. ENGL 240
28. ENGL 245
29. ENGL 248
30. ENGL 251
31. ENGL 252
32. ENGL 261
33. ENGL 262
34. ENGL 271
35. ENGL 281
36. ENGL 282
37. ENGL 295
38. ENGL 296
39. GEN 125
40. HNR 101
41. HON 101
42. HON 102
43. HRS 101
44. HRS 102
45. HRS 103
46. HRS 104
47. HRS 105
48. HRS 106
49. HRS 107
50. HRS 108
51. HRS 109
52. HRS 110
53. HRS 111
54. HRS 112
55. HRS 113
56. HRS 114
57. HRS 115
58. HRS 116
59. HRS 117
60. HRS 118
61. HRS 119
62. HRS 120
63. HRS 121
64. HIS 135
65. HIS 140
66. HIS 150
67. HIS 160

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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.
Cultural Studies Courses

Other Degree and/or Credential Requirements

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/REL130 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

Heritage

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

Humanities

ART 104 Introduction to African Art
ART 108 Introduction to World Art
ART 205 African American Art
ENG 135 Greek and Roman Mythology in Translation
ENG 233 Literature and Identity
ENG 234 Introduction to Women’s Literature
ENG 264 Major Black Writers
ENG 282/HUM 282 International Film Studies
HUM 121 Peace Studies
HUM 135 Introduction to Native American Literature*
HUM 140 Introduction to Latino Literature
HUM 150 Introduction to African Literature
HUM 160 Introduction to Holocaust Literature and Film
HUM 202 Survey of Appalachian Studies*
HUM 203 Survey of Appalachian Studies II*
HUM 204 Appalachian Seminar*
HUM 230 Contemporary Japanese Literature and Culture in Translation
HUM 250 Appalachian Literature Survey
HUM 251 Contemporary Appalachian Literature
MU 101 Folk and Traditional Music of the Western Continents

Other General Education Courses

Foreign Languages

AAS, AA, AS, AFA

FRE 101 Elementary French I ............................................. 4
FRE 102 Elementary French II ............................................ 4
FRE 201 Intermediate French I ........................................ 3
FRE 202 Intermediate French II ........................................ 3
GER 101 Elementary German I ........................................... 4
GER 102 Elementary German II ......................................... 4
GER 201 Intermediate German I ........................................ 3
GER 202 Intermediate German II ...................................... 3
JPN 101 Beginning Japanese I .......................................... 4
JPN 102 Beginning Japanese II ......................................... 4
RAE 150 Elementary Chinese I ........................................ 4
RAE 151 Elementary Chinese II ...................................... 4
SJD 101 Sign Language I ................................................ 3
SJD 102 Sign Language II ................................................ 3
SJD 203 Sign Language III ............................................. 3
SJD 204 Sign Language IV ............................................... 3
SPA 101 Elementary Spanish I (spoken approach) .......... 4
SPA 102 Elementary Spanish II (spoken approach) ... 4
SPA 201 Intermediate Spanish I ...................................... 3
SPA 202 Intermediate Spanish II .................................... 3

Other Degree and/or Credential Requirements

Cultural Studies Courses

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.
Course Transitions

A significant number of courses have changed prefixes and/or course numbers. This does not change the ability of the courses to fulfill general education course requirements as long as courses were eligible at the time of enrollment. Course changes for General Education courses are available in Appendices -E (through 2012-2013 academic year). Course changes for General Education courses that occurred in the 2013-2014 academic year are available in Appendix F.

Employment and Earnings Information

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

Admission to Programs

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

KCTCS College Codes

ACTC Ashland Community and Technical College
BLC Bluegrass Community and Technical College
BSC Big Sandy Community and Technical College
ECTC Elizabethtown Community and Technical College
GTW Gateway Community and Technical College
HJC Hazard Community and Technical College
HEC Henderson Community College
HPC Hopkinsville Community College
JFC Jefferson Community and Technical College
MDC Madisonville Community College
MYC Maysville Community and Technical College
OWC Owensboro Community and Technical College
SME Somerset Community College
SKY Southcentral Kentucky Community and Technical College
SEC Southeast Kentucky Community and Technical College
WKCTC West Kentucky Community and Technical College

Digital Literacy

(The KCTCS Digital Literacy Policy is pending updates in 2018-19)

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

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

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

Foreign Languages

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

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

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

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

Documentation of digital literacy will be placed on the student’s transcript. Students may choose to take the standardized Computer Exam to demonstrate computer competency. Students who score a passing score on the exam will have met the requirements of digital literacy and documentation will be placed on the student’s transcript.
Kentucky Community and Technical College System’s (KCTCS) sixteen colleges deliver quality online courses and programs through two ways to learn: Learn by Term and Learn on Demand http://kctcs.edu/Degrees_Training/KCTCS_Online.

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 http://kctcs.edu/Degrees_Training/KCTCS_Online.

Online Programs

KCTCS Online Learn by Term – Semester-based Online Programs

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

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

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

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

KCTCS Online Learn by Term

Current List of Semester-based Online Programs:

Degree

Associate in Arts

Associate in Science

Associate in Applied Science:

Administrative Office Technology
  – Administrative Track
  – Financial Assistant Track
  – Desktop Publishing Track

Business Administration Systems
  – Accounting Track
  – Business Management Track
  – Equine Business Management Track
  – Finance Track
  – Hospitality Management Track
  – Human Resource Management Track
  – Informatics Track
  – Management Track
  – Marketing & Retailing Track
  – Office Systems Track
  – Real Estate Management Track
  – Telecommunication Systems Management Track
  – Turf Grass/Landscaping Management Track

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

Criminal Justice
  – Corrections Track
  – Criminal Justice Track
  – Law Enforcement Track
  – Security and Loss Prevention Track

Energy Management
  – Energy Management Track

General Occupational/Technical Studies
  – General Occupational/Technical Studies Track

Healthcare Facilities Leadership
  – Healthcare Facilities Leadership Track
Health Information Technology
- (Practicum arranged on-site in student vicinity)-Health Information Technology Track
- Health Information Technology Track

Human Services
- Human Services Track

Information Management and Design
- Library Information Technology Track

Logistics & Operation Management
- Logistics & Operations Management Track

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

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

Mining Technology
- Engineering Operations Track
- Supervisor Track

Paralegal Technology
- Paralegal Technology Track

Quality Management Systems
- Quality Management Systems Track

Diplomas

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

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

Computer Aided Drafting & Design
- Computer Aided Drafting & Design

Energy Management
- Energy Management

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

Visual Communication
- Digital Production Artist

Certificates

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

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

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

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

Distance Education

– Security+ Prep
– Social Media Specialist
– Web Programming
– Web Administration

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

Digital Game and Simulation Design
– Digital Game and Simulation Design

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

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

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

Human Services
– Direct Support Work

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

Logistics & Operations Management
– Logistics Management

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

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

Mining Technology
– Mining Technician I

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

Paralegal Technology
– Paralegal Technology

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

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

KCTCS Online Learn on Demand Programs

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

Degree

Associate in Arts

Associate in Science

Business Administration
– Human Resources Management Track
– Management Track

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

Criminal Justice
– Corrections Track
– Criminal Justice Track
– Law Enforcement Track
– Security and Loss Prevention Track

Logistics and Operations Management
– Logistics and Operations Management Track

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

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

Business Administration Systems
- Organizational Leadership
- Small Business Management

Medical Information Technology
- Medical Administrative Assistant
- Medical Records Specialist

Certificate

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

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

Criminal Justice
- Computer Forensics

Logistics and Operations Management
- Logistics Management

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

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

Nursing
- Medicaid Nurse Aide (NAA/MNA)

Learn on Demand College Readiness Program

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

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

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

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

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

Gainful Employment Information

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

Advanced Integrated Manufacturing

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

Certificate

Manufacturing Process Operations – 4805013019
(Offered at MDC)

AIM 100 Principles of Advanced Integrated Manufacturing ............ 3
AIM 110 Manufacturing Processes and Materials ....................... 3
AIM 120 Introduction to Modern Plastics Manufacturing ............ 3
AIT 1001 Basic Electrical Knowledge ........................................ 2
AIT 1003 Hydraulic/Pneumatics Fundamentals ......................... 1
AIT 200 Process Management and Quality Control .................... 4
AIT Technical Elective (Approved by Program Coordinator) ........ 3

Total Credits 19

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, Electrical Maintenance Technician, 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.

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

Associate in Applied Science

Advanced Integrated Technology – 1504997019
(Offered at MDC)

Required General Education:

MAT 126 Technical Algebra and Trigonometry OR .................... 3
MAT 150 College Algebra or ............................................................................... (3)
PHY 151 Introductory Physics I AND .................................. 3
PHY 161 Introductory Physics I Lab OR .................................. 1
PHY 171 Applied Physics .................................................. (4)
ENG 101 Writing I OR ........................................................................... 3
ENG 105 Writing: An Accelerated Course ........................................... (3)
Social/Behavioral Science course ...................................................... 3
Heritage/Humanities course (HIS 107 suggested) .................. 3

Subtotal 16

Technical Core:

AIT 100 Power Generation & Utilization ........................................ 4
AIT 110 Power Distribution Systems ........................................... 3
AIT 120 Equipment Installation ................................................... 3
AIT 130 Measurement and Instrumentation ................................ 4
AIT 140 Industrial Controls I ...................................................... 4
AIT 150 Industrial Controls II ...................................................... 4
AIT 210 Equipment Maintenance .................................................. 4
AIT 270 Introduction to Robotics and Programmable Logic Controllers .................. 2

Subtotal 28

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.

PLW 100 Introduction to Engineering Design .................... 4
PLW 125 Principles of Engineering ........................................ 4
ACR 100 Refrigeration Fundamentals ..................................... 3
ACR 101 Refrigeration Fundamentals Lab ................................ 2
ACR 102 HVAC Electricity ......................................................... 3
ACR 103 HVAC Electricity Lab ................................................... 2
ACR 130 Electrical Components ................................................... 3
ACR 131 Electrical Components Lab .......................................... 2
IMT 100 Welding for Maintenance ............................................. 3
IMT 101 Welding for Maintenance Lab ........................................ 2
CMM 112 Fundamentals of Machine Tools-B ....................... 4
AIT 135 Industrial Refrigeration I ............................................... 3
AIT 160 Workplace Safety ......................................................... 1
AIT 200 Process Management and Quality Control ................. 4
AIT 220 The Integrated Power Grid .............................................. 3
AIT 230 Integrated Power Plant Operations ......................... 3
AIT 235 Industrial Refrigeration II .............................................. 3
ELT 250 Programmable Logic Controllers ....................... 4
AET 250 PLC Networking ......................................................... 4
AET 270 Advanced PLC Programming ........................................ 4
AIT 290 Selected Topics in Advanced Integrated Technology 0.1-5.0
AIT 299 Advanced Electromechanical Concepts ...................... 4
AET 190 Industrial Computer Programming Concepts .............. 4
Approved Technical Courses ...................................................... 16

Total 60

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

**Multi-Skilled Technician – 1504993110**  
*(Offered at MDC)*

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<td>Refrigeration Fundamentals</td>
<td>3</td>
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<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
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<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tool B</td>
<td>4</td>
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<td>AIT 270</td>
<td>Introduction to Robotics and Programmable Logic Controllers</td>
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**Engineering Controls – 1504993120**  
*(Offered at MDC)*

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<td>Industrial Controls I</td>
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<td>AIT 150</td>
<td>Industrial Controls II</td>
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<td>AET 190</td>
<td>Industrial Computer Programming Concepts</td>
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<tr>
<td>ELT 250</td>
<td>Programmable Logic Controllers</td>
<td>4</td>
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<tr>
<td>AET 250</td>
<td>PLC Networking</td>
<td>4</td>
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<td>AIT 270</td>
<td>Advanced PLC Programming</td>
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**Skilled Operator – 1504993190**  
*(Offered at MDC)*

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<td>Power Generation and Utilization</td>
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<td>AIT 110</td>
<td>Power Distribution Systems</td>
<td>3</td>
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<tr>
<td>AIT 1203</td>
<td>Mechanical Installation</td>
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**Industrial Refrigeration – 1504993140**  
*(Offered at MDC, MYC, SMC)*

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<td>Refrigeration Fundamentals Lab</td>
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<td>ACR 102</td>
<td>HVAC Electricity</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab</td>
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<td>ACR 130</td>
<td>Electrical Components</td>
<td>3</td>
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<td>ACR 131</td>
<td>Electrical Components Lab</td>
<td>2</td>
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<tr>
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**Multi-Skilled Maintenance Apprenticeship – 1504993150**  
*(Offered at MDC)*

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<td>Basic Electrical Knowledge</td>
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<td>AIT 1003</td>
<td>Hydraulic/Pneumatic Fundamentals</td>
<td>1</td>
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<td>AIT 1101</td>
<td>Electrical Power Distribution</td>
<td>1</td>
</tr>
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<td>AIT 1102</td>
<td>Fluid Power Distribution</td>
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<td>AIT 1201</td>
<td>Electrical Installation</td>
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<td>AIT 1202</td>
<td>Piping, Pneumatic, and Installation</td>
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<td>AIT 1203</td>
<td>Mechanical Installation</td>
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<tr>
<td>AIT 1301</td>
<td>Principles of Instrumentation</td>
<td>2</td>
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<td>AIT 1302</td>
<td>Integrated Process Control</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1401</td>
<td>Basic Electrical Controls</td>
<td>2</td>
</tr>
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<td>AIT 1402</td>
<td>Basic Pneumatic Controls</td>
<td>1</td>
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<td>AIT 1403</td>
<td>Basic Hydraulic Controls</td>
<td>1</td>
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<td>AIT 1501</td>
<td>Intermediate Electrical Controls</td>
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<td>Intermediate Hydraulic Controls</td>
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<tr>
<td>AIT 160</td>
<td>Workplace Safety</td>
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<td>AIT 2101</td>
<td>Predictive/Preventive Maintenance and Lubrication</td>
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<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
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**Ammonia Refrigeration Fundamentals – 1504993160**  
*(Offered at MDC, MYC)*

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<td>Industrial Refrigeration I</td>
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<td>AIT 235</td>
<td>Industrial Refrigeration II</td>
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**Electrical Maintenance Technician – 1504993170**  
*(Offered at)*

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<tr>
<td>AIT 1001</td>
<td>Basic Electrical Knowledge</td>
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<td>Power Development</td>
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<td>Electrical Power Distribution</td>
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<td>AIT 1201</td>
<td>Electrical Installation</td>
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<td>AIT 1301</td>
<td>Temperature, Pressure, Flow Level</td>
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<td>AIT 1302</td>
<td>Integrated Process Control</td>
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<td>AIT 1401</td>
<td>Basic Electrical Controls</td>
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<td>Introduction to Robotics and Programmable Logic Controllers</td>
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**Industrial Mechanic – 1504993180**  
*(Offered at)*

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<td>AIT 1102</td>
<td>Fluid Power Distribution</td>
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<tr>
<td>AIT 1202</td>
<td>Piping, Pneumatic, &amp; Installation</td>
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<td>AIT 1203</td>
<td>Mechanical Installation</td>
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<td>Basic Pneumatic Controls</td>
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<td>Intermediate Pneumatic Controls</td>
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<td>AIT 1503</td>
<td>Intermediate Hydraulic Controls</td>
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<td>AIT 2101</td>
<td>Power Transmission Systems</td>
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<td>AIT 2103</td>
<td>Advanced Mechanical</td>
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### Advanced Manufacturing

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

**Certificate**

**Fundamentals of Advanced Manufacturing & Mechatronics - 1506133089**  
*(Offered at GTW)*

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

<table>
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<tbody>
<tr>
<td>MFG 102</td>
<td>Certified Production Technician</td>
<td>4-6</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>
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<td>CMM 112</td>
<td>Fundamentals of Machine Tools B</td>
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<tr>
<td>CMM 118</td>
<td>Metrology Control Charts</td>
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<td><strong>Total Credits</strong></td>
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**Fundamentals of Advanced Manufacturing & Quality Control - 1506133110**  
*(Offered at GTW)*

<table>
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<td>Certified Production Technician</td>
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<td>Introduction to Computers</td>
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<td>BRX 110</td>
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<td>Basic Blueprint Reading for Machinist</td>
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<td>BRX 210</td>
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<td>Mechanical Blueprint Reading</td>
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<td>QMS 101</td>
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<td>Introduction to Quality Systems</td>
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**Total Credits 16-18**

---

**African American Studies**

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

**Certificate**

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

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<td>African American History II</td>
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<td>MIS 207</td>
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<td>ENG 264</td>
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<td>Major Black Writers.</td>
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*Elective* ............................................................... 3

**Total Credits 18**

*African American Studies Certificate Elective:  (Required: 3 credits)*

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<td>ANT 160</td>
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<td>Cultural Diversity in the Modern World</td>
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<td>SOC 235</td>
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<td>Inequality in Society</td>
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<td>MIS 104</td>
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<td>Introduction to Jazz</td>
<td>3</td>
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<td>HUM 150</td>
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<td>Introduction to African Literature</td>
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<td>Introduction to Comparative Religion</td>
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<td>Introduction to African Art</td>
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<td>Special Topics in Theatre</td>
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</table>

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**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.

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**Associate in Applied Science**

**Agricultural Studies – 0103017029**  
*(Offered at OWC)*

**General Education:**

<table>
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</tr>
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<td></td>
<td>Introduction to Biology OR</td>
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<td>BIO 150</td>
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**Subtotal 15**

**Technical Core:**

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<tr>
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<td>Introduction to Fertilizers and Soils</td>
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<td>AGR 150</td>
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<td>Agricultural Power</td>
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<td>AGR 180</td>
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<td>Agricultural Internship II</td>
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<td>AGR 240</td>
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<td>Introduction to Animal Science</td>
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<td>AGR 250</td>
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<td>Introduction to Plants/Crop Production</td>
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<tr>
<td>AGR 280</td>
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<td>Livestock Management</td>
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<td>AGS 115</td>
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<td>Agriculture Maintenance</td>
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<td>AGS 205</td>
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<td>Forage Management OR</td>
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<td>AGS 215</td>
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<td>Weed Management</td>
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<td>AGS 295</td>
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<td>Capstone</td>
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**Total Subtotal 31-34**

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

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<td>Introduction to Sustainable Agriculture</td>
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<td>AGS 135</td>
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<td>Herbaceous Plant Production</td>
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<td>Greenhouse Production</td>
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<td>AGS 175</td>
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<td>Agriculture Marketing and Sales</td>
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<td>AGS 225</td>
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<td>Fruit and Vegetable Production</td>
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<td>AGS 275</td>
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<td>Value Added Production</td>
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<td>Cooperative Education OR</td>
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**Track Subtotal 19**

**Total Credit Hours 65-68**

**Production Agriculture Operations Track – 010301704**  
*(Offered at HPC, OWC)*

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<td>AGR 200</td>
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<td>Agricultural Internship III</td>
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<td>AGS 145</td>
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<td>Technology in Agriculture</td>
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<td>AGS 235</td>
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<td>Field Crop Production</td>
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<td>AGS 245</td>
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<td>Pest Management</td>
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<td>Crop Scouting</td>
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<td>AGS 285</td>
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**Track Subtotal 19**

**Total Credit Hours 65-68**

**Diploma**

**General Agricultural Studies -0103014029**  
*(Offered at OWC)*

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<th>Title</th>
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<tr>
<td>ENG 101</td>
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<td>Writing I</td>
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<tr>
<td>MAT 110</td>
<td></td>
<td>Applied Mathematics OR</td>
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<tr>
<td>BIO 112</td>
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<td>Introduction to Biology OR</td>
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</table>

---

*Associate in Applied Science*  
*(Offered at OWC)*

---

**African American Studies Certificate**  
*(Offered at ELC, JFC)*

---

**Agricultural Studies**  
*(Offered at HPC, OWC)*

---

**Production Agriculture Operations Track**  
*(Offered at OWC)*

---

**Diploma**  
*(Offered at OWC)*

---

83
Agricultural Technology

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

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

Associate in Applied Science

Agriculture Technology - 0103017019

(Offered at HEC, HPC, MDC)

General Education:

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Technical Core:

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<th>Description</th>
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<tbody>
<tr>
<td>AGR 125</td>
<td>Introduction to Fertilizers and Soils</td>
<td>3</td>
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<td>AGR 140</td>
<td>Issues in Agriculture</td>
<td>3</td>
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<td>AGR 180</td>
<td>Agricultural Internship I</td>
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<tr>
<td>AGR 230</td>
<td>Career Development in Agriculture</td>
<td>3</td>
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<tr>
<td>AGR 240</td>
<td>Introduction to Animal Science OR</td>
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<tr>
<td>AGR 250</td>
<td>Introduction to Plants/Crop Production</td>
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Subtotal 26-27

Total Credit Hours 40-43

Agricultural Technology Track – 010301701

(Offered at HEC, HPC, MDC)

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<td>Field Applications in Agriculture</td>
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<td>AGR 150</td>
<td>Agricultural Power</td>
<td>3</td>
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<tr>
<td>AGR 170</td>
<td>Introduction to Equipment, Machines, and Engines</td>
<td>3</td>
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<td>AGR 190</td>
<td>Agricultural Internship II</td>
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<td>AGR 200</td>
<td>Agricultural Internship III</td>
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<tr>
<td>AGR 220</td>
<td>Computers in the Agricultural Environment</td>
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Subtotal 15

Total Credits Agricultural Technology Track 66-67

Sustainable Agriculture Track – 0103101702

(Offered at HEC, MDC)

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<td>AGR 160</td>
<td>Horticulture Science</td>
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<td>AGR 260</td>
<td>Introduction to Sustainable Agriculture</td>
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<tr>
<td>AGR 270</td>
<td>Introduction to Organic Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Principles of Marketing</td>
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<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
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Subtotal 15

Total Credits Sustainable Agriculture Track 66-67

Diploma

Agricultural Technology - 0103014019

(Offered at HEC, HPC, MDC)

General Education Courses: .............................................. 3

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Technical Courses:

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<td>AGR 130</td>
<td>Field Applications in Agriculture</td>
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<td>Issues in Agriculture</td>
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<td>AGR 150</td>
<td>Agricultural Power</td>
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<td>AGR 170</td>
<td>Introduction to Equipment, Machines, and Engines</td>
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<td>Agricultural Internship III</td>
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<td>AGR 220</td>
<td>Computers in the Agricultural Environment</td>
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<td>AGR 250</td>
<td>Introduction to Plants/Crop Production</td>
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Subtotal 35

Total Credits 41

Certificates

Agricultural Technician - 0103013009

(Offered at HEC, HPC, HZC, MDC)

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<td>Issues in Agriculture</td>
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<td>Agricultural Power</td>
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<td>AGR 230</td>
<td>Career Development in Agriculture</td>
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<tr>
<td>AGR 282</td>
<td>Principles of Marketing</td>
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Subtotal 6

Total Credits 24
Sustainable Agriculture – 0103013029
(Offered at HEC, HZC, MDC)
AGR 140 Issues in Agriculture ........................................... 3
AGR 260 Introduction to Sustainable Agriculture .................. 3
BAS 160 Introduction to Business ........................................ 3
AGR 250 Introduction to Plants and Crop Production ............... 3
AGR 240 Animal Science ...................................................... 3
AGR 125 Introduction to Fertilizers and Soils ......................... 3
AGR 160 Horticulture Science .............................................. 3
AGR 270 Introduction to Organic Agriculture ......................... 3
BAS 282 Principles of Marketing .......................................... 3
Total Credits 27

Air Conditioning Technology

Installing and servicing heating, 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, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:
Quantitative Reasoning ................................................. 3 credit hours
Natural Sciences .................................................. 3 credit hours
Social/Behavioral Sciences ........................................... 3 credit hours
Heritage/Humanities ......................................................... 3 credit hours
Written Communication ............................................. 3 credit hours
Oral Communications ...................................................... 3 credit hours
Total Credits 18

Technical Courses:
Digital Literacy ......................................................... 0-3
ACR 100 Refrigeration Fundamentals ...................................... 3
ACR 101 Refrigeration Fundamentals Lab .............................. 2
ACR 102 HVAC Electricity AND ......................................... 3
ACR 103 HVAC Electricity Lab OR ....................................... 2
Comparable Electrical Course* ......................................... (4-5)
ACR 130 Electrical Components ........................................... 3
ACR 131 Electrical Components Lab ...................................... 2
ACR 170 Heat Load/Duct Design ........................................... 3
ACR 250 Cooling and Dehumidification ........................................ 3
ACR 251 Cooling and Dehumidification Lab ......................... 2
ACR 260 Heating and Humidification ..................................... 3
ACR 261 Heating and Humidification Lab ............................ 2
ACR 270 Heat Pump Application .......................................... 3
ACR 271 Heat Pump Application Lab .................................... 2
Electives** .......................................................... 10-12
Subtotal Credits 47-56
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, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:
Area 1 =
Humanities/Heritage .................................................. 3 credit hours
Social/Behavioral Sciences, Natural Sciences OR
Quantitative Reasoning .................................................. 3 credit hours
Subtotal Credits 6

Total Credits 47-56

Certificates

Environmental Control System Servicer - 4702013039
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
ACR 100 Refrigeration Fundamentals ...................................... 3
ACR 101 Refrigeration Fundamentals Lab ................................ 2
ACR 102 HVAC Electricity AND ......................................... 3
ACR 103 HVAC Electricity Lab OR ....................................... 2
Comparable Electrical Course* ......................................... (4-5)
ACR 130 Electrical Components ........................................... 3
ACR 131 Electrical Components Lab ...................................... 2
ACR 250 Cooling and Dehumidification ........................................ 3
ACR 251 Cooling and Dehumidification Lab ......................... 2
ACR 260 Heating and Humidification ..................................... 3
ACR 261 Heating and Humidification Lab ............................ 2
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>Refrigeration Fundamentals Lab</td>
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<tr>
<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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<tr>
<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<tr>
<td>ACR 130</td>
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<td>ACR 131</td>
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### 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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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<td>ACR 130</td>
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<td>Heat Load/Duct Design</td>
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<td>ACR 260</td>
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<td>ACR 262</td>
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<td>ACR 270</td>
<td>Heat Pump Application</td>
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<td>ACR 271</td>
<td>Heat Pump Application Lab</td>
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<tr>
<td>ACR 290</td>
<td>Journeyman Preparation</td>
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### Refrigeration Mechanic - 4702013059
(Offered at ASC, BLC, BSC, ELC, 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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<tr>
<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<td></td>
<td>Comparable Electrical Course*</td>
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<tr>
<td>ACR 130</td>
<td>Electrical Components</td>
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<td>ACR 170</td>
<td>Heat Load/Duct Design</td>
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<tr>
<td>ACR 200</td>
<td>Commercial Refrigeration</td>
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<tr>
<td>ACR 210</td>
<td>Ice Machines</td>
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<tr>
<td>ACR 250</td>
<td>Cooling and Dehumidification</td>
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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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### 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>Programmable Logic Controllers</td>
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<td>Electrical Motor Controls II and PLCs</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)*

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#### Communication Track - 050122301

*(Offered at ASC, SEC)*

- COM 254 Introduction to Intercultural Communication OR .............................................. 3
- Elective approved by Appalachian Studies Committee or its designee .............................................. (3)
- **Total** .............................................. **12**

#### Creative Writing Track - 050122302

*(Offered at ASC, SEC)*

- ENG 207 Beginning Workshop in Imaginative Writing OR .............................................. 3
- Elective approved by Appalachian Studies Committee or its designee .............................................. (3)
- **Total** .............................................. **12**

#### Music Track - 050122303

*(Offered at ASC, SEC)*

- MU 101 Folk and Traditional Music of the Western Continents .............................................. 3
- **Total** .............................................. **12**

#### Science Track - 050122304

*(Offered at ASC, SEC)*

- BIO 120 Human Ecology OR .............................................. 3
- Elective approved by Appalachian Studies Committee or its designee .............................................. (3)
- GLY 101 Physical Geology .............................................. 3
- GLY 111 Laboratory for Physical Geology .............................................. 1
- **Total** .............................................. **16**

#### Social Science Track - 050122305

*(Offered at ASC, SEC)*

- SWK 275 The Family OR .............................................. 3
- Elective approved by Appalachian Studies Committee or its designee .............................................. (3)
- ANT 220 Intro to Cultural Anthropology .............................................. 3
- **Total** .............................................. **15**

### Applied Process Technologies

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

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

#### Associate in Applied Science

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

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<td>MAT 116 Technical Mathematics .............................................. (3)</td>
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<td>CHE 130 Introductory General &amp; Biological Chemistry OR ...................... 4</td>
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<td>CHE 140/145 Introduction to General Chemistry with Lab .............................................. (4)</td>
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<td>ENG 101 Writing I .............................................. 3</td>
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<td>Social/Behavioral Sciences OR .............................................. ............... 3</td>
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<td>PHS 175</td>
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<td>Process Fundamentals</td>
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<td>Rotating &amp; Reciprocating Equipment</td>
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<td>APT 106</td>
<td>Process Chemistry</td>
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<td>APT 202</td>
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<td>EET 151</td>
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<td><strong>Subtotal</strong></td>
<td><strong>18-19</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>

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

**Associate in Applied Science**

**Apprenticeship Studies - 479997010**

(Offered at ELC, GTW, JFC, WKC)

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

**Subtotal** ......................................................... **18-19**
Technical Core:

Computer/Digital Literacy course OR demonstrated competency .................... 0-3
Apprenticeship Credit* ................................................................. 42
Subtotal ...................................................................................... 42-45
Total Credits ........................................................................... 60-64

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

Architectural Technology

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

Associate in Applied Science

Architectural Technology - 1513037019

(Offered at BLC)

ACH 100 Construction Documents I ................................................. 3
ACH 110 Survey of the Architectural Profession ................................ 1
ACH 120 Theory and History of Architecture I ................................. 3
ACH 150 Construction Documents II .................................................. 3
ACH 160 Building Materials and Construction I ............................... 3
ACH 161 Building Materials and Construction II .............................. 3
ACH 170 Theory and History of Architecture II ................................. 3
ACH 175 Introduction to Systems ..................................................... 3
ACH 195 Computer Aided Drafting I .................................................. 3
ACH 200 Construction Documents III .............................................. 3
ACH 225 Structures ............................................................................. 3
ACH 250 Construction Documents IV .................................................. 3
ACH 260 Office Practice ................................................................. 3
ACH 275 Mechanical and Electrical Systems ................................... 3
Technical Courses ** (see list below) .............................................. 10
ENG 101 Writing I .............................................................................. 3
MAT 116 Technical Mathematics OR ............................................. 3
MAT 150 College Algebra OR ......................................................... 3
Other Quantitative Reasoning course approved by program coordinator ............................................................................. (3)
Heritage/Humanities .................................................................... 3
Natural Sciences Course ............................................................... 3
Social/Behavioral Sciences Course ............................................... 3
Digital Literacy .................................................................................. 0-3
Total ............................................................................................... 65-68

**Technical Courses

ACH 180 Selected Topics in Architectural Technology: (Topic) .......... 1-3
ACH 194 Visual Composition ............................................................ 3
ACH 198 Practicum in Architectural Technology ............................. 1-3
ACH 280 Revit/Building Information Modeling ................................. 2
ACH 290 Building Codes I .............................................................. 3
ACH 291 Construction Management ............................................... 3
ACH 292 Building Codes II ............................................................. 3
ACH 293 Presentation Techniques .................................................... 3
ACH 294 Specification Writing .......................................................... 3
ACH 295 Computer Aided Drafting II .............................................. 3
ACH 297 Estimating Techniques ....................................................... 3
ACH 298 Computer 3D Modeling .................................................... 3
COE 199 Cooperative Education: ArchTech ................................... 1-3

Additional Suggested General Education Courses (Not Required)

ENG 102 Writing II .............................................................................. 3
Oral Communication Course .......................................................... 3

Auto Body/Collision Repair Technology

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

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

Diploma

Collision Repair Technology - 4706034019

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

General Education Courses:

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:

CRT 100 Introduction to Collision Repair ........................................ 2
CRT 130 Non Structural Analysis and Damage Repair .................. 6
CRT 131 Non Structural Analysis and Damage Repair Lab ............ 6
CRT 150 Painting and Refinishing ................................................... 6
CRT 151 Painting and Refinishing Lab ............................................. 6
CRT 230 Structural Analysis and Damage Repair ......................... 6
CRT 231 Structural Analysis and Damage Repair Lab .................. 6
CRT 250 Mechanical and Electrical Components ....................... 6
CRT 251 Mechanical and Electrical Components Lab ................ 6
CRT 198 Practicum OR ................................................................. 1
CRT 199 Cooperative Education .................................................... 1
Subtotal .......................................................................................... 51-54
Total Credits .................................................................................. 57-60

Recommended Program Electives

CRT 298 Advanced Practicum OR .................................................. 2
CRT 299 Advanced Cooperative Education ................................... 2
Certificates

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

Technical Courses:

| CRT 100 | Introduction to Collision Repair | 2 |
| CRT 130 | Non-Structural Analysis and Damage Repair | 6 |
| CRT 131 | Non-Structural Analysis and Damage Repair Lab | 6 |
| CRT 150 | Painting and Refinishing | 6 |
| CRT 151 | Painting and Refinishing Lab | 6 |
| CRT 230 | Structural Analysis and Damage Repair | 6 |
| CRT 231 | Structural Analysis and Damage Repair Lab | 6 |
| **Total Credits** | | 38 |

Automotive Parts/Service Writer Track - 470604702
(Offered at JFC, OWC)

| ISX 100 | Industrial Safety | 3 |
| TQX 110 | Total Quality Management | 3 |
| B&E 100 | Introduction to Business and Economics | 1 |
| ACT 101 | Fundamentals of Accounting | 3 |
| TEC 100 | Communication for Business and Industry OR | 3 |
| CMS 152 | Writing for Business and Industry | 3 |
| **Subtotal Credits** | | 13 |

| **Total Credits** | 61-64 |

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

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

Associate in Applied Science

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

General Education:

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

Technical Core:

Digital Literacy course OR demonstrated competency ........................................ 0-3
ADX 120 Basic Automotive Electricity ........................................ 3
ADX 150 Engine Repair ............................................... 3
ADX 170 Climate Control ............................................. 3
ADX 260 Electrical Systems ........................................ 3
AUT 110 Brake Systems ............................................ 3
AUT 130 Manual Transmissions .................................. 3
AUT 140 Basic Fuel and Ignition Systems ....................... 3
AUT 142 Emission Systems ......................................... 3
AUT 160 Suspension and Steering ................................ 3
AUT 180 Automatic Transmission/Transaxle .................. 3
AUT 240 Computer Control Systems and Diagnosis .......... 3
**Total Technical core credits** 33-36

Automotive Technician Track - 470604701
(Offered at BSC, ELC, HZC, JFC, OWC, SKY, WKC)

| ADX 121 | Basic Automotive Electricity Lab | 2 |
| ADX 151 | Engine Repair Lab | 2 |
| ADX 171 | Climate Control Lab | 1 |
| ADX 261 | Electrical Systems Lab | 2 |
| AUT 111 | Brake Systems Lab | 2 |
| AUT 131 | Manual Transmissions Lab | 2 |
| AUT 141 | Basic Fuel and Ignition Systems Lab | 2 |
| AUT 143 | Emission Systems Lab | 2 |
| AUT 161 | Suspension and Steering Lab | 2 |
| AUT 181 | Automatic Transmission/Transaxle Lab | 2 |
| AUT 241 | Computer Control Systems and Diagnosis Lab | 2 |
| **Subtotal Credits** | 21 |

| **Total Credits** | 69-72 |

Automotive Technology

Instruction in systems such as engines, fuel, on-board computers, transmissions, steering, suspension, and braking 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.
Diploma

**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 .................................................... 3
- AUT 161 Suspension and Steering Lab .............................................. 2
- AUT 180 Automatic Transmission/Transaxle ...................................... 3
- AUT 181 Automatic Transmission/Transaxle Lab ................................ 2
- AUT 240 Computer Control Systems and Diagnosis ............................ 3
- AUT 241 Computer Control Systems and Diagnosis ................................ 2

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

**Subtotal Credits:** 55-58

**Total Credits:** 59-64

**Automotive Parts/Service Writer - 4706044029**
*(Offered at JFC, OWC)*

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

**General Education Total Credit Hours** 6

**Technical or Support Courses:**
- 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
- B&E 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

Certificates

**Automotive Air Conditioning Mechanic - 4706043019**
*(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, 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, 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
- 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 180 Automatic Transmission/Transaxle ...................................... 3
- AUT 181 Automatic Transmission/Transaxle Lab ................................ 2
- AUT 240 Computer Control Systems and Diagnosis ............................ 3
- AUT 241 Computer Control Systems and Diagnosis ................................ 2

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

**Subtotal Credits:** 55-58

**Total Credits:** 61-64

**Manual Transmission/Drive Train Technician - 4706043059**
*(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)*

- AUT 130 Manual Transmissions ....................................................... 3
- AUT 131 Manual Transmissions Lab .................................................. 2

**Total Credits:** 5

**Automatic Transmission/Transaxle Technician - 4706043079**
*(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)*

- AUT 180 Automatic Transmission/Transaxle ...................................... 3
- AUT 181 Automatic Transmission/Transaxle Lab ................................ 2

**Total Credits:** 5

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

- AUT 110 Brake Systems ................................................................. 3
- AUT 111 Brake Systems Lab ............................................................. 2

**Total Credits:** 5

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

- AUT 160 Suspension and Steering .................................................. 3
- AUT 161 Suspension and Steering Lab ............................................. 2

**Total Credits:** 5
Tune-up Mechanic - 4706043109
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, 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

Hybrid and Electric Vehicle Technician – 4706043139

- 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 Repair Lab ............................................................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

Aviation Maintenance Technology

Expertise in the inspection, repair, service and overhaul of aircraft and engines is the goal of this program certified by the Federal Aviation Agency (FAA). Interpreting specifications from service and technical manuals, using testing procedures and equipment, diagnosing problems and making necessary repairs are the skills taught in aircraft maintenance. To work in the aircraft industry, the FAA must certify students completing this program.

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

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

Associate in Applied Science

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

General Education:

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<th>Credits</th>
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<tr>
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<td>Quantitative Reasoning .................................3</td>
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<td>Natural Sciences ...........................................3</td>
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<td>ATE 100</td>
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<td>ATE 102</td>
<td>Introduction to Aviation Maintenance Technology I .3</td>
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<tr>
<td>ATE 104</td>
<td>Introduction to Aviation Maintenance Technology II .3</td>
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<tr>
<td>ATE 106</td>
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<td>ATE 108</td>
<td>Introduction to Aviation Maintenance Technology IV .3</td>
</tr>
<tr>
<td>ATE 202</td>
<td>Aircraft Structures I ......................................3</td>
</tr>
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<td>ATE 204</td>
<td>Aircraft Structures II .....................................3</td>
</tr>
<tr>
<td>ATE 206</td>
<td>Aircraft Structures III .....................................3</td>
</tr>
<tr>
<td>ATE 208</td>
<td>Aircraft Structures IV .....................................3</td>
</tr>
<tr>
<td>ATE 222</td>
<td>Aircraft Systems I ..........................................3</td>
</tr>
</tbody>
</table>

Total Credits 67

Diploma

Airframe and Power Plant Maintenance Technician - 4706084049
(Offered at JFC, SMC)

General Education: 6 credit hour requirement for diploma

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<thead>
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<tr>
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Subtotal 6

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<th>Course</th>
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<td>Aircraft Structures IV .....................................3</td>
</tr>
<tr>
<td>ATE 222</td>
<td>Aircraft Systems I ..........................................3</td>
</tr>
</tbody>
</table>

Total Credits 76

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

Certificates

Airframe Maintenance Technician - 4706083069
(Offered at JFC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ATE 100</td>
<td>Aviation Math ..............................................1</td>
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<td>Introduction to Aviation Maintenance Technology IV .3</td>
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<td>ATE 222</td>
<td>Aircraft Systems I ..........................................3</td>
</tr>
</tbody>
</table>

Total Credits 37

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

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

BTS 100 Biomedical Technology Systems: A Career Perspective ........... 1
BTS 110 Environmental Risks and Precautionary Measures for the BTS Professional .................................................. 1
BTS 120 Essentials of Biomedical Electronics I ................................ 2
BTS 125 Essentials of Biomedical Electronics II ............................. 2
BTS 130 Medical Equipment Management I ................................... 2
BTS 140 Science Principles Employed in Medical Technologies ........ 1
BTS 200 Patient Care Support and Management Systems ............... 2
BTS 210 Diagnostic Medical Equipment and Non-Radiographic Imaging Modalities ................................................... 2
BTS 220 Laboratory Devices, Instruments, and Analyzers ............... 2
BTS 230 Medical Equipment Management II ................................ 2
BTS 250 Introduction to Medical-Based IT Networks and Standards ... 2
BTS 260 Radiographic Imaging Modalities .................................... 2
BTS 270 Therapeutic Equipment Modalities I ................................ 2
BTS 275 Therapeutic Equipment Modalities II ................................ 2
BTS 280 General Care Monitoring and Instrumentation .................. 2
BTS 285 Critical Care Monitoring and Instrumentation .................... 2
BTS 290 Clinical Experience in Biomedical Technology Systems Professional .................................................. 2
Subtotal 31
Total 68
Elective

BTS 299 Selected Topics of Investigation in Biomedical Technology Systems ................................................................ (0.5-5.0)

Certificate

Foundations in Biomedical Technology Networking Systems - 1504013029 (Offered at MDC)

CIT 105 Introduction to Computing .................................................. 3
(fulfills digital literacy requirement)
CIT 111 Computer Hardware and Software .................................... 4
CIT 160 Introduction to Networking Concepts .................................. 4
CIT 180 Security Fundamentals .................................................... 3
BTS 250 Introduction to Medical-Based IT Networks and Standards ... 2
Subtotal 16

Biotechnology Laboratory Technician

The Biotechnology Laboratory Technician AAS program provides the basic knowledge and laboratory skills needed to prepare for entry-level jobs in university, government, pharmaceutical, or industrial biotechnology laboratories. Graduates of the program will be able to seek employment in biotechnology laboratories such as biomanufacturing, quality control, quality assurance, research and development, and regulatory bioscience. The program has been designed to develop skills in basic analysis of molecular processes (DNA and proteins), use of bioreactors, recombinant DNA technology, generation of cell cultures, immunological methods, and 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**

- Heritage/Humanities .................................................. 3
- Social/Behavioral Sciences .............................................. 3
- Natural Sciences with Laboratory \(^1\) .................................. 4 – 5
- Quantitative Reasoning \(^2\) ............................................. 3
- Written Communication ................................................ 3

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

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

2 Assessment score above the KCTCS transitional course placement level or completion of transitional courses (courses numbered 001-099).

**Required Technical Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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></td>
<td>Digital Literacy (^3)</td>
<td>0-3</td>
</tr>
</tbody>
</table>

**Subtotal: Technical Core Requirements** 12-17

3 Digital literacy must be demonstrated either by competency exam or by successfully completing a digital literacy course.

**Required Technical Elective Courses**

Choose at least 28 credit hours:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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>
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<tr>
<td>BTN 125</td>
<td>Bioinformatics I</td>
<td>2</td>
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<tr>
<td>BTN 126</td>
<td>Bioinformatics II</td>
<td>2</td>
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<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 OR</td>
<td>1-3</td>
</tr>
<tr>
<td>BTN 298</td>
<td>Biotechnology Learning Laboratory OR</td>
<td>1-8</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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</tbody>
</table>

Or course approved by the program coordinator

**Subtotal: Technical Elective Courses** 28

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

**Technical Support Courses**

Choose at least 4 credit hours within Natural Sciences and Mathematics, usually courses with prefixes ANA, BIO, BTN, CHE, EST, GLY, MA, MAT, PGY, PHY, STA or any course approved by the program coordinator. BTN courses not used to satisfy Technical Electives may be used to satisfy Technical Support.

**Subtotal: Technical Support Courses** 4

**Total** 60 - 64

**Certificate**

**Biotechnology Laboratory Assistant - 4101013040**

(Offered at BLC)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BTN 100</td>
<td>Contextual Science with Laboratory (^2)</td>
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</tr>
<tr>
<td>BTN 103</td>
<td>Contextual Laboratory Language (^2)</td>
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<td>BTN 104</td>
<td>Contextual Laboratory Calculations (^3)</td>
<td>3</td>
</tr>
<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
<td>4</td>
</tr>
<tr>
<td>BTN 106</td>
<td>Fundamentals of Scientific Communications</td>
<td>4</td>
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</tbody>
</table>

**Subtotal: Technical Elective Courses** 28

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

**Basic Biotechnician - 4101013020**

(Offered at BLC)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
<td>4</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>
</tbody>
</table>

**Subtotal: Technical Elective Courses** 16-17

6 Science requirement may be satisfied by:
   - Completion of the Biotechnology Laboratory Assistant Certificate, or
   - Completion of BTN 100, BTN 101, and BTN 104 or cohort with a “C” or better, or
   - One semester of college biology with lab, or
   - One semester of college chemistry with lab, or
   - Course approved by the program coordinator.

**Advanced Biotechnician - 4101013050**

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Applied Biotechnology Laboratory Calculations</td>
<td>3</td>
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<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>
</tbody>
</table>

**Subtotal: Technical Elective Courses** 4

4
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.

### 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 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, 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).

### Broadband Basic Installer

The Broadband Basic Installer certificate provides an overview of concepts needed to complete the duties of a broadband technician relating to telecommunications service and installation. The certificate also provides the foundational basic skills and knowledge required to effectively perform the installation and maintenance job duties and functions. Students are introduced to HFC Cables and fiber optic transmissions and cable repair.

### Broadband Support Technician

The Broadband Support Technician certificate provides training on first level support via telephone or field service to minimize interruptions in inside wire for residential/business broadband (DSL/Video) service, Central Office junctions as required for broadband continuity, digital subscriber carriers and associated broadband equipment, Residential Gateways and DSL business class routers, along with the array of wireless home networking equipment. The certificate prepares technicians to follow documented call handling procedures to manage inbound contacts and document relevant information in a Service Management tool, while providing excellent customer service and technical support services.

### Broadband Telecommunications Equipment Installer

The Broadband Telecommunications Equipment Installer certificate introduces the set-up, installation, rearrangement, and/or removing switching and dialing equipment used in telecommunications central offices and end user broadband consumers. Training also includes an introduction to routing broadband information to destination and troubleshooting central problems at the end user customer premises.
### Broadband Cyber Security Technician

The Broadband Cyber Security Technician certificate introduces the setup, configuration, and support of internal and/or external networks. Training includes the development and maintenance of all systems, applications, security, and network configurations. Also included are troubleshooting network performance issues and creating and maintaining a disaster recovery plan. The certificate prepares the technician to recommend upgrades, patches, and new applications and equipment to provide technical support and guidance to users.

### Broadband Technician Specialist

The Broadband Specialist I (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)*

**General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAT 150</td>
<td>College Algebra OR ............... 3</td>
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<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry (3)</td>
</tr>
<tr>
<td>PHY 171</td>
<td>Applied Physics OR .......... 4</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I ................. 3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Science Course .......... 3</td>
</tr>
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<td>Heritage/Humanities .......... 3</td>
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<td>General Education Credit Hours .......... 18-19</td>
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**Technical Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ELT 110</td>
<td>Circuits I .................. 5</td>
</tr>
<tr>
<td>ELT 120</td>
<td>Digital I .................. 3</td>
</tr>
<tr>
<td>BBT 289</td>
<td>Broadband Technology Capstone .......... 1</td>
</tr>
<tr>
<td>CTT 105</td>
<td>Introduction to Computers OR .......... 3</td>
</tr>
<tr>
<td>CTT 111</td>
<td>Digital Literacy course .......... 3</td>
</tr>
<tr>
<td>CTT 161</td>
<td>Introduction to Networks .......... 4</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety ............. 3</td>
</tr>
<tr>
<td>BBT 100</td>
<td>Introduction to HFC Cable TV .......... 3</td>
</tr>
<tr>
<td>BBT 200</td>
<td>Introduction to Cellular Technology .......... 2</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</tr>
</tbody>
</table>

**Broadband Technician Track - 470103701**  
*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 110</td>
<td>Voice &amp; Data Installer Level I ......... 4</td>
</tr>
<tr>
<td>ETT 116</td>
<td>Fiber Optic Systems .......... 3</td>
</tr>
<tr>
<td>ELT 224</td>
<td>Basic Telecommunications Installation and Maintenance .......... 3</td>
</tr>
<tr>
<td>ETT 222</td>
<td>Mechanics of Telephony .......... 3</td>
</tr>
<tr>
<td>EET 154</td>
<td>Electrical Construction I .......... 2</td>
</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab .......... 2</td>
</tr>
<tr>
<td>EET 252</td>
<td>Electrical Construction II .......... 2</td>
</tr>
<tr>
<td>EET 253</td>
<td>Electrical Construction II Lab .......... 2</td>
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<tr>
<td><strong>Track Subtotal</strong></td>
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</table>

**Total Credit Hours**  
**67-68**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CTT 125</td>
<td>Introduction to GIS .......... 3</td>
</tr>
<tr>
<td>BBT 220</td>
<td>PBX Installations .......... 2</td>
</tr>
<tr>
<td>BBT 201</td>
<td>Advanced Cellular Technology .......... 2</td>
</tr>
<tr>
<td>ELT 224</td>
<td>Basic Telecommunications Installation and Maintenance .......... 3</td>
</tr>
</tbody>
</table>

**Total Credit Hours**  
**67-68**

### Certificates

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 110</td>
<td>Circuits I .......... 5</td>
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<tr>
<td>BBT 100</td>
<td>Digital I .......... 3</td>
</tr>
<tr>
<td>CTT 105</td>
<td>Introduction to Computers OR .......... 3</td>
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<td>CTT 111</td>
<td>Digital Literacy Course .......... 3</td>
</tr>
<tr>
<td>CTT 161</td>
<td>Introduction to Networks .......... 4</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety .......... 3</td>
</tr>
<tr>
<td>BBT 200</td>
<td>Introduction to Cellular Technology .......... 2</td>
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<tr>
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**Broadband Support Technician – 4701033060**  
*(Offered at BSC, HZC, SEC)*

<table>
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<tbody>
<tr>
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<td>Introduction to HFC Cable TV .......... 3</td>
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<tr>
<td>BBT 200</td>
<td>Introduction to Cellular Technology .......... 2</td>
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<td>Voice &amp; Data Installer Level I .......... 4</td>
</tr>
<tr>
<td>ETT 116</td>
<td>Fiber Optic Systems .......... 3</td>
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<td>ETT 224</td>
<td>Basic Telecommunications Installation and Maintenance .......... 3</td>
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<td>ETT 222</td>
<td>Mechanics of Telephony .......... 3</td>
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<td>Electrical Construction I Lab .......... 2</td>
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**Broadband Technician Specialist – 4701033070**  
*(Offered at BSC, HZC, SEC)*

<table>
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<tr>
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<tr>
<td>CTT 111</td>
<td>Computer Hardware and Software .......... 4</td>
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<td>CTT 161</td>
<td>Introduction to Networks .......... 4</td>
</tr>
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<td>ISX 100</td>
<td>Industrial Safety .......... 3</td>
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**Associate in Applied Science**

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

<table>
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<tbody>
<tr>
<td>MAT 150</td>
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<td></td>
<td>General Education Credit Hours .......... 18-19</td>
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</table>

**Technical Core**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ELT 110</td>
<td>Circuits I .................. 5</td>
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<td>Digital I .................. 3</td>
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<td>CTT 105</td>
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<td><strong>Subtotal</strong></td>
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**Broadband Technician Track - 470103701**  
*(Offered at BSC)*

<table>
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<th>Course</th>
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<tr>
<td><strong>Track Subtotal</strong></td>
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</table>

**Total Credit Hours**  
**67-68**

### Certificates

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

<table>
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<th>Course</th>
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<td>HFC Cable-TV Operations .......... 3</td>
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<td>Electrical Construction II .......... 2</td>
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<td>EET 250</td>
<td>National Electrical Code .......... 4</td>
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**Total Credit Hours**  
**63-64**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>BBT 100</td>
<td>Digital I .......... 3</td>
</tr>
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<td>CTT 105</td>
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<td>CTT 161</td>
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<tr>
<td>ISX 100</td>
<td>Industrial Safety .......... 3</td>
</tr>
<tr>
<td>BBT 200</td>
<td>Introduction to HFC Cable TV .......... 3</td>
</tr>
<tr>
<td>BBT 200</td>
<td>Introduction to Cellular Technology .......... 2</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

**Broadband Support Technician – 4701033060**  
*(Offered at BSC, HZC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BBT 100</td>
<td>Introduction to HFC Cable TV .......... 3</td>
</tr>
<tr>
<td>BBT 200</td>
<td>Introduction to Cellular Technology .......... 2</td>
</tr>
<tr>
<td>ETT 110</td>
<td>Voice &amp; Data Installer Level I .......... 4</td>
</tr>
<tr>
<td>ETT 116</td>
<td>Fiber Optic Systems .......... 3</td>
</tr>
<tr>
<td>ETT 224</td>
<td>Basic Telecommunications Installation and Maintenance .......... 3</td>
</tr>
<tr>
<td>ETT 222</td>
<td>Mechanics of Telephony .......... 3</td>
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<tr>
<td>EET 154</td>
<td>Electrical Construction I .......... 2</td>
</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Laboratory .......... 2</td>
</tr>
<tr>
<td>EET 252</td>
<td>Electrical Construction II .......... 2</td>
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<tr>
<td>EET 253</td>
<td>Electrical Construction II Laboratory .......... 2</td>
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<tr>
<td><strong>Total</strong></td>
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**Broadband Technician Specialist – 4701033070**  
*(Offered at BSC, HZC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CTT 105</td>
<td>Introduction to Computers OR .......... 3</td>
</tr>
<tr>
<td>CTT 111</td>
<td>Computer Hardware and Software .......... 4</td>
</tr>
<tr>
<td>CTT 161</td>
<td>Introduction to Networks .......... 4</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety .......... 3</td>
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<tr>
<td>BBT 200</td>
<td>Introduction to Cellular Technology .......... 2</td>
</tr>
<tr>
<td><strong>Total</strong></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.

### Building Controls Technician – 4604013099

<table>
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<tbody>
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<tr>
<td>ACR 101</td>
<td>2</td>
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<td>ACR 103</td>
<td>2</td>
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<tr>
<td>CRA 230</td>
<td>5</td>
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<td>CRA 232</td>
<td>5</td>
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<td><strong>Total</strong></td>
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</table>

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

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<tr>
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<tbody>
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<td>ACR 207</td>
<td>5</td>
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<tr>
<td>ACR 208</td>
<td>4</td>
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<tr>
<td><strong>Other Technical Electives approved by the Program Coordinator</strong></td>
<td><strong>3-10</strong></td>
</tr>
</tbody>
</table>

Business Studies

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

### Administrative Office Technology

The Administrative Office Technology program is an integrated curriculum, which prepares graduates at the certificate, diploma, and associate degree level. The Administrative Office Technology program prepares students to work in an office environment of people, process, and technology. 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 workplace 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, ELIC, HPC, JFC, MYC, OWC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
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<tr>
<td>ENG 101</td>
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<tr>
<td>MAT 105</td>
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<td>MAT 110</td>
<td>(3)</td>
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<tr>
<td>Higher Level Quantitative Reasoning Course</td>
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</tr>
<tr>
<td>Heritage/Humanities</td>
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<tr>
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<tr>
<td>Social/Behavioral Sciences Course</td>
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<table>
<thead>
<tr>
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<td>OST 160</td>
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<tr>
<td>OST 210</td>
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<tr>
<td>OST 235</td>
</tr>
<tr>
<td>OST 275</td>
</tr>
<tr>
<td><strong>Technical Core Credit Hours</strong></td>
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</table>

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

#### Administrative Track - 520402701

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

Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ACT 101</td>
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</tr>
<tr>
<td>Higher Level Accounting Course</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 220</td>
<td>Administrative Office Simulation</td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
</tr>
<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
</tr>
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</table>

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

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<tr>
<th>Course</th>
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<tbody>
<tr>
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<tr>
<td>ENG 102</td>
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</tr>
<tr>
<td>BAS 120</td>
<td>3</td>
</tr>
<tr>
<td>OST 255</td>
<td>3</td>
</tr>
<tr>
<td>OST 150</td>
<td>3</td>
</tr>
<tr>
<td>OST 108</td>
<td>3</td>
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<td>OST 272</td>
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<tr>
<td>OST 250</td>
<td>3</td>
</tr>
<tr>
<td><strong>Elective course approved by Program Coordinator</strong></td>
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</table>

**Total Administrative Track Credit Hour** | **18**

**Total Credit Hours** | **OST AAS Administrative Track** | **60-61**
### Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACT 210</td>
<td>Advanced Word Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>ACT 215</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ACT 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ACT 235</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>ACT 240</td>
<td>Software Integration</td>
<td>3</td>
</tr>
<tr>
<td>ACT 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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### General Education

<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>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>ACT 255</td>
<td>Introduction to Business Graphics</td>
<td>3</td>
</tr>
<tr>
<td>OST 227</td>
<td>Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
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</table>

### Diplomas

#### Administrative Assistant - 5204024019

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ACT 210</td>
<td>Advanced Word Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>ACT 215</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ACT 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ACT 235</td>
<td>Business Communications Technology</td>
<td>3</td>
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<tr>
<td>ACT 240</td>
<td>Software Integration</td>
<td>3</td>
</tr>
<tr>
<td>ACT 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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</table>

#### Financial Assistant - 520424049

<table>
<thead>
<tr>
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<th>Title</th>
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</thead>
<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ACT 210</td>
<td>Advanced Word Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>ACT 215</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ACT 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ACT 235</td>
<td>Business Communications Technology</td>
<td>3</td>
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<tr>
<td>ACT 240</td>
<td>Software Integration</td>
<td>3</td>
</tr>
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<td>ACT 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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### Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 102</td>
<td>Higher Level Accounting Course</td>
<td></td>
</tr>
<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</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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<td>OST 215</td>
<td>Office Procedures</td>
<td></td>
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<tr>
<td>OST 240</td>
<td>Software Integration</td>
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<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td></td>
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#### Choose two courses (6 hours) from the following list:

- BAS 160 Introduction to Business
- ENG 102 Writing II
- BAS 120 Personal Finance
- OST 255 Introduction to Business Graphics
- OST 108 Editing Skills for the Office Professional
- OST 272 Presentation Graphics
- OST 250 Advanced Desktop Publishing

**Total Credit Hours**: 32-33

**Total Credit Hours**: 38-39

### General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>OST 108</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<td>OST 213</td>
<td>Business Calculations for the Office Professional OR</td>
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#### Total General Education

**6**

### Technical Courses

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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 102</td>
<td>Higher Level Accounting Course</td>
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<td>BAS 267</td>
<td>Introduction to Business Law</td>
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</tr>
<tr>
<td>OST 109</td>
<td>Legal Terminology</td>
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<td>OST 221</td>
<td>Legal Office Simulations</td>
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<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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<td>OST 160</td>
<td>Records and Database Management</td>
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<td>OST 235</td>
<td>Business Communications Technology</td>
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<td>OST 240</td>
<td>Software Integration</td>
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<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></td>
</tr>
</tbody>
</table>

#### Choose one course (3 hours) from the following:

- BAS 160 Introduction to Business
- ENG 102 Writing II
- BAS 120 Personal Finance
- OST 255 Introduction to Business Graphics
- OST 108 Editing Skills for the Office Professional
- OST 272 Presentation Graphics
- OST 250 Advanced Desktop Publishing

**Total Technical Hours**: 36

### Office Assistant - 5204024039

(Offered at BLC)

#### General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
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<td>Editing Skills for the Office Professional OR</td>
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<td>Writing I</td>
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#### Technical Courses

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<th>Title</th>
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<td>OST 105</td>
<td>Introduction to Information Systems</td>
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<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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<td>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
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<tr>
<td>OST 215</td>
<td>Office Procedures</td>
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<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
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<tr>
<td>OST 240</td>
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<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
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<tr>
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#### Total Credit Hours**: 42

### Data Entry Operator - 5204023079

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

#### Certificates

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<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>OST 215</td>
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<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
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<tr>
<td>OST 240</td>
<td>Software Integration</td>
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<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
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<tr>
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#### Total Credit Hours**: 15

### Available Completely Online

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<td>Editing Skills for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing II</td>
<td>3</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
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<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
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<td>OST 255</td>
<td>Introduction to Business Graphics</td>
<td>3</td>
</tr>
<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional</td>
<td>3</td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>OST 250</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
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</table>

#### Total Credit Hours**: 36

### Available Completely Online

<table>
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<th>Course</th>
<th>Title</th>
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<tr>
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<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>OST 235</td>
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<td>3</td>
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<tr>
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#### Total Credit Hours**: 30

### Available Completely Online

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<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>OST 255</td>
<td>Introduction to Business Graphics</td>
<td>3</td>
</tr>
<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional</td>
<td>3</td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>OST 250</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
</tr>
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</table>

#### Total Credit Hours**: 30

### Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
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<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>OST 255</td>
<td>Introduction to Business Graphics</td>
<td>3</td>
</tr>
<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional</td>
<td>3</td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>OST 250</td>
<td>Advanced Desktop Publishing</td>
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#### Total Credit Hours**: 30
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<thead>
<tr>
<th>Course Name</th>
<th>Course Code</th>
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<tr>
<td>Integrated Office Skills</td>
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<tr>
<td>Financial Assistant Clerk</td>
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<tr>
<td>Financial Assistant Trainee</td>
<td>5204023139</td>
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<tr>
<td>Financial Record Keeper</td>
<td>5204023069</td>
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</table>

The Business Administration Systems Program prepares students for a variety of careers in business. A core curriculum provides students with a foundation of knowledge applicable to any business career. The Business Administration Systems Program offers an Associate in Applied Science degree, diplomas and a variety of certificates in the areas of Accounting, Entrepreneurship, Financial Perspectives, Business, Hospitality Management, Human Resource Management, Industrial Supervisor, Informatics, Leadership, Management, Office Systems, Operations Management, Real Estate Management, Sales, Small Business Management, and Team Leadership.

The curriculum is designed for those who seek entry level jobs as well as for currently employed individuals wishing to enhance their skills. A student specializes by choosing from the following Tracks, Diplomas and Certificates:

- **Accounting Track**: Leads to careers in accounting including bookkeeper, accounting clerk, cost payroll clerk and positions using microcomputer-based systems.
- **Business Management Track**: Leads to careers for planning and managing people and other resources within organizations.
- **Equine Business Management Track**: Provides the knowledge and skills that students need to take advantage of various employment opportunities within the horse industry.
- **Hospitality Management Track**: 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 breadth-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 Office Systems Track / Diploma / Certificate prepares the student with a broad base of knowledge and skills needed for a variety of positions in an office.

The Real Estate Management Track / Certificate leads to a career in real estate which may include sales, finance, counseling, development, marketing analysis, valuation, and/or property management.

The Organizational Leadership Diploma curriculum is designed to prepare students to manage a department or to become team leaders in team-based or self-managed organizations.

The Small Business Management Diploma / Certificate curricula is designed to prepare students for the position of entrepreneur and business owner and offers the prospective business owner the fundamentals of starting and operating a business.

The Accounting Recordkeeping Specialist Certificate prepares students for entry level employment as a bookkeeper.

The Advanced Business Administration Certificate is designed to be a building block to complete the Associate in Applied Science Degree, Business Administration Core courses.

The Business Certificate prepares the student for positions in supervision, management and general business.

The Business Transfer Certificate is designed to provide the business transfer student an exit point by offering business preparation courses that will transfer to a four-year institution.

The Entrepreneurship Certificate is focused on providing foundational business knowledge necessary to turn a project, idea, product or service into a business venture. Certificate graduates will learn how to prepare a business plan, identify sources of venture and operating capital, gain product development knowledge, learn methods of marketing their idea or business, learn how to read and understand financial statements, and gain personal and organization leadership qualities that will provide business tools to new or current entrepreneurs.

The Financial Perspectives Certificate prepares the student for entry-level positions in accounting, financial services and small business management.

The Industrial Supervisor certificate prepares the student in the field of industrial front-line supervision.

The Leadership Certificate enables the student to qualify for leadership positions, work effectively in teams, lead problem solving work groups, understand the conflict resolution processes and plan effectively.

The Operations Management Certificate provides students with the knowledge and skills needed to effectively function as first-line supervisors in an operations environment whether in distribution, services, or manufacturing. It will also increase the understanding of the operations function for non-operations students who will be working in a distribution, services or manufacturing organization.

The Payroll Accounting Specialist Certificate prepares the student for entry level work in payroll processing.

The Sales Certificate prepares the student for a career in sales.

The Supervisory Management Certificate prepares the student in the field of front-line supervision.

The Team Leadership Certificate prepares the student for a career in team leadership, supervision and / or management in a variety of different organizations. Modules are available.

The Supervisory Management Certificate prepares the student in the field of front-line supervision.

**Associate in Applied Science**

**Business Administration Systems - 5202017129**

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

### General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO</td>
<td>Any Economics Course</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>3</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
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<tr>
<td>MAT 150</td>
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<td>NAT</td>
<td>Heritage/Humanities</td>
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<td>NAT</td>
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**Subtotal**: 18

### Technical Courses:

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<th>Course</th>
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<td>CIT 105</td>
<td>Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 250</td>
<td>Business Employability Seminar</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 OR</td>
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<tr>
<td>MKT 282</td>
<td>Principles of Marketing OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I AND</td>
<td>3</td>
</tr>
<tr>
<td>ACT 102</td>
<td>Fundamentals of Accounting II</td>
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<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
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</table>

**Technical Subtotal**: 28-31

**Core Subtotal**: 46-49
Business Administration Systems Tracks

Accounting Track - 520201701
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, MDC, MYC, OWC, SKY, SM, WKC)

Required:
ACT 279 Computerized Accounting Systems .................................................. 3
ACT 281 Individual Taxation ........................................................................... 3
ACT 286 Financial Accounting Topics ........................................................... 3

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

ACT 196 Payroll Accounting ........................................................................... 3
ACT 277 Managerial Accounting Topics ......................................................... 3
BAS 212 Introduction to Financial Management .............................................. 3
ACT 290 Selected Topics in Accounting (Topic) .............................................. 1-3
ACT 295 Corporate and Partnership Taxation ................................................. 3
BAS 110 Worksheets in Business Applications .............................................. 3
BAS 120 Personal Finance .............................................................................. 3
CIT 234 Advanced Productivity Software ...................................................... 3
CIT 236 Advanced Data Organization ............................................................ 3
COE 199 Cooperative Education: Business Administration OR ................... 1-3
BAS 280 Business Internship ........................................................................ 1-3

Subtotal 15

Total Credits 61-64

Business Management Track – 520201717
(Offered at BLC, HZC, HEC, 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:
MGT 200 Small Business Management OR .................................................. 3
MGT 256 Operations Management .................................................................. (3)
MGT 274 Human Resource Management OR .............................................. 3
MGT 287 Supervisory Management ............................................................... (3)
MGT 292 Strategic Management .................................................................... 3
MGT 101 Quality Management Principles .................................................... 3

Choose a total of 6 hours from the following:
ENG 203 Business Writing .............................................................................. 3
BAS 120 Personal Finance .............................................................................. 3
MGT 200 Small Business Management .......................................................... 3
MGT 240 Business Ethics and Self-Management ............................................ 3
MGT 256 Operations Management .................................................................. 3
MGT 258 Project Management ........................................................................ 3
MGT 274 Human Resource Management ..................................................... 3
MGT 287 Supervisory Management ............................................................... (3)
MGT 288 Self Management ............................................................................ 3
MKT 155 Personal Selling ................................................................................ 3
MKT 290 Advertising and Promotion .............................................................. 3
MKT 291 Retail Management .......................................................................... 3
MKT 293 Buying and Merchandising ............................................................... 3
MGT 299 Selected Topics in Business Management: (Topic) ......................... 1-3
MKT 299 Selected Topics in Marketing: (Topic) ............................................. 1-3
IMD 275 Workplace Management ................................................................. 3
COE 199 Cooperative Education .................................................................... 3
ECO 202 Principles of Macroeconomics ....................................................... 3
REA 100 Real Estate Principles I ..................................................................... 3
REA 120 Real Estate Marketing .......................................................................  3
MA 123 Elementary Calculus .......................................................................... 3
STA 291 Statistical Methods ........................................................................... 3
PSY 110 General Psychology OR ................................................................. 3
SOC 101 Introduction to Sociology .................................................................. (3)

Subtotal 18

Total Credits 64-67

Equine Business Management Track – 520201718
(Offered at BLC)

Required:
EQS 110 Basic Equine Physiology .................................................................... 3
EQS 103 Racehorse Care .................................................................................. 1
EQS 104 Racehorse Care Lab OR ................................................................... 3
EQS 299 Equine Internship ................................................................................ (1-9)
EQS 118 Equine Bloodstock ............................................................................ 3
EQM 120 Introduction to Commercial Breeding Practices .............................. 3
EQS 130 Introduction to the Racing Industry ................................................... 3
EQS 240 Equine Legal and Business Principles .............................................. 3

Subtotal 19

Total Credits 65-68

Hospitality Management Track – 520201703
(Offered at BLC, BSC, WKC)

Available Completely Online

Required:
HOS 100 Introduction to Hospitality ............................................................... 3
CUL 100 Culinary Arts Profession ................................................................... 2
HOS 282 Tourism Marketing .......................................................................... 3

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

BAS 200 Small Business Management .......................................................... 3
BAS 274 Human Resource Management ....................................................... 3
BAS 290 Management, Ethics & Society ......................................................... 3
COE 199 Cooperative Education: Business Administration OR ................... 1-3
BAS 280 Business Internship ........................................................................ 1-3
CUL 200 Sanitation & Safety .......................................................................... 2
CUL 105 Applied Fundamental of the Culinary Arts Profession .................... 2
CUL 280 Cost & Control .................................................................................. 3
HOS 160 Security for the Hospitality Industry .............................................. 3
HOS 200 Cultural Heritage Tourism ............................................................... 3
HOS 210 Front Office Management ............................................................... 3
HOS 220 Housekeeping & Maintenance Management ................................... 3
CUL 270 Human Relations Management ....................................................... 3

Subtotal Credits 17

Total 63-66

Human Resource Management Track - 520201715
(Available Completely Online)

Required:
BAS 274 Human Resource Management ....................................................... 3
BAS 287 Supervisory Management ................................................................. 3
ACT 196 Payroll Accounting .......................................................................... 3

Choose 9 hours (not duplicated from the core) from the following Approved Technical Courses with no more than 3 credit hours from IFM courses to count towards graduation.

BAS 280 Business Internship OR ................................................................. 1-4
COE 199 Cooperative Education .................................................................... (1-4)
BAS 284 Applied Management Skills ............................................................ 3
BAS 288 Person & Organizational Leadership ................................................. 3
BAS 290 Management, Ethics & Society ......................................................... 3
BAS 299 Selected Topics in Management: (Track Topic) ................................. 1-3
ISX 100 Industrial Safety ................................................................................ 3
OST 275 Office Management ......................................................................... 3
QMS 101 Introduction to Quality Systems ..................................................... 3
QMS 202 Performance Management ............................................................ 3
PSY 180 Human Relations .............................................................................. 3
IFM 111 Client-Side Informatics Software ..................................................... 3
IFM 128 Principles of Informatics ................................................................. 3
IFM 130 Business Data Communications ..................................................... 3
IFM 211 Collaboration Software .................................................................... 3
### Informatics Track - 520201716
*(Offered at GTW, HEC, MYC, SMC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>IFM 128 Principles of Informatics</td>
<td>3</td>
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<tr>
<td>CT 170 Database Design Fundamentals</td>
<td>3</td>
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<tr>
<td>IFM 215 Information Systems Analysis</td>
<td>3</td>
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<tr>
<td>CIT 120 Computational Thinking</td>
<td>3</td>
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<tr>
<td>IFM 130 Business Data Communication</td>
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<tr>
<td>IFM 235 Information Systems and Business Intelligence</td>
<td>3</td>
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<tr>
<td>MGT 258 Project Management</td>
<td>3</td>
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<tr>
<td>IFM 111 Client-Side Informatics Software</td>
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<tr>
<td>IFM 225 Advanced Informatics</td>
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<td>IFM 211 Collaboration Software</td>
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<tr>
<td>CT 150 Internet Technologies</td>
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**Total Credits:** 64-67

### Management Track - 520201708
*(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

**Available Completely Online**

<table>
<thead>
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<tr>
<td>BAS 212 Introduction to Financial Management OR</td>
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<td>BAS 284 Applied Management Skills</td>
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<tr>
<td><em>Must be a General Education Quantitative Reasoning that is different from core Quantitative Reasoning selection.</em></td>
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</table>

**Choose 11-12 hours (not duplicated from the core) from the following Management and/or Technical Courses with no more than 3 hours selected from Technical Courses.**

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

### 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.

<table>
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<th>Course</th>
<th>Credits</th>
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<tr>
<td>MKT 155 Personal Selling OR</td>
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</tr>
<tr>
<td>COE 199 Cooperative Education</td>
<td>3</td>
</tr>
<tr>
<td>MKT 290 Advertising and Promotion</td>
<td>3</td>
</tr>
<tr>
<td>MKT 291 Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 293 Buying and Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>ENG 203 Business Writing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120 Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGT 200 Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 258 Project Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 288 Self Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 299 Selected Topics in Marketing: (Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>COE 199 Cooperative Education</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202 Principles of Macroeconomics</td>
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</table>

**Total Credits:** 63-67

### Office Systems Track - 520201705
*(Offered at BSC, ELC, HEC, HZC, MDC, MYC, SMC, WKC)*

**Available Completely Online**

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>OST 110 Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OST 210 Advanced Word Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>OST 215 Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OST 220 Administrative Office Simulations</td>
<td>3</td>
</tr>
<tr>
<td>OST 150 Transcription and Office Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 160 Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 216 Selected Topics in Office Systems: (Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>OST 235 Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 295 Office Systems Technology Internship OR</td>
<td>1-3</td>
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<tr>
<td>COE 199 Cooperative Education: (Business Technology) OR</td>
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<tr>
<td>BAS 280 Business Internship</td>
<td>3</td>
</tr>
<tr>
<td>OST 275 Office Management</td>
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</tbody>
</table>

**Total Credits:** 64-67
Real Estate Management Track - 520201706
(Offered at BSC, BLC, ELC, WKC)

Required:
REA 100 Real Estate Principles I .............................. 3
REA 121 Appraising .................................................. 3
REA 225 Real Estate Finance ........................................ 3
REA 230 Real Estate Law ............................................. 3

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Real Estate Program Coordinator.
REA 120 Real Estate Marketing...................................... 3
REA 122 Construction and Blueprints......................... 3
REA 200 Real Estate Principles II ................................. 3
REA 201 Property Management .................................... 3
REA 202 Real Estate Investments I ............................... 3
REA 203 Commercial and Industrial Property ............... 3
REA 204 Land Planning and Development .................... 3
REA 205 Farm Brokerage ........................................... 3
REA 212 Real Estate Investments II ............................ 3
REA 220 Real Estate Brokerage Management ................. 3
COE 199 Cooperative Education: (Business Administration) 1-4
OR
BAS 280 Business Internship ..................................... (1-4)

Subtotal 18

Total Credits 64-67

Diplomas

Accounting - 5202014049
(Offered at BSC, GTW, HPC, MYC, OWC, SMC, WKC)

General Education:

Area 1 =
ENG 101 Writing I ....................................................... 3
ENG 102 Writing II OR ................................................. 3
ENG 203 Business Writing OR (Excluding MAT 205, MAT 206, STA 200, STA 210) ............................................. 3
OST 235 Business Communications Technology .......... (3)
Oral Communications ...................................................... 3

Area 2 =
Quantitative Reasoning course .................................... 3

Subtotal 6

Required Technical:
CIT 130 Productivity Software OR ............................... 0-3
OST 240 Software Integration ....................................... (3)
ACC 201* Financial Accounting OR ............................... 3
ACT 101 Fundamentals of Accounting I AND .......... 3
ACT 102 Fundamentals of Accounting II ....................... (3)
ACT 279 Computerized Accounting Systems .................. 3
COE 199 Cooperative Education OR .............................. 3
BAS 280 Business Internship ....................................... (3)

Additional accounting hours approved by Program Coordinator ........................................... 6

Required Technical Subtotal 18-24

Total Credits 40-45

Informatics - 5202014059
(Offered at HEC, MYC, SMC)

General Education:

Area 1 =
ENG 101 Writing I ....................................................... 3
Area 2 =
ECO Any Economics Course ......................................... 3

Subtotal 6

Required Technical:
CIT 105 Introduction to Computers OR .......................... 3
OST 105 Introduction to Information Systems .................. (3)
ACC 201 Financial Accounting OR ............................... 3
ACT 101 Fundamentals of Accounting I AND .......... 3
ACT 102 Fundamentals of Accounting II ....................... (3)
BAS 160 Introduction to Business ................................. 3
OST 110 Document Formatting and Word Processing .... 3
OST 210 Advanced Word Processing Applications .......... 3
OST 213 Business Calculations for the Office Professional 3
OST 215 Office Procedures .......................................... 3
OST 220 Administrative Office Simulations .................. 3
CIT 130 Productivity Software OR ............................... 3
OST 240 Software Integration ....................................... (3)
BAS 280 Business Internship OR ................................. 1-4
COE 199 Cooperative Education ................................... (1-3)

Required Technical Subtotal 28-34

Office Systems - 5202014019
(Offered at BSC, HZC, MDC, SMC, WKC)

General Education:

Area 1 =
ENG 101 Writing I OR .................................................. 3
COM 181 Basic Public Speaking OR ............................. (3)
COM 252 Introduction to Interpersonal Communication .... (3)

Area 2 =
ECO Any Economics Course ......................................... 3

Subtotal 6

Required Technical:
CIT 105 Introduction to Computers OR .......................... 3
OST 105 Introduction to Information Systems .................. (3)
ACC 201 Financial Accounting OR ............................... 3
ACT 101 Fundamentals of Accounting I AND .......... 3
ACT 102 Fundamentals of Accounting II ....................... (3)
BAS 160 Introduction to Business ................................. 3
OST 110 Document Formatting and Word Processing .... 3
OST 210 Advanced Word Processing Applications .......... 3
OST 213 Business Calculations for the Office Professional 3
OST 215 Office Procedures .......................................... 3
OST 220 Administrative Office Simulations .................. 3
CIT 130 Productivity Software OR ............................... 3
OST 240 Software Integration ....................................... (3)
BAS 280 Business Internship OR ................................. 1-4
COE 199 Cooperative Education ................................... (1-3)

Required Technical Subtotal 28-34

*No course can be used to fulfill more than one requirement.
Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Office Systems Program Coordinator.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>OST 150</td>
<td>Transcription and Office Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 216</td>
<td>Selected Topics in Office Systems: (Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 295</td>
<td>Office Systems Technology Internship OR</td>
<td>1-3</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td>3</td>
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</table>

Approved Technical Courses: 6

Total Credits: 40-46

Organizational Leadership - 5202014029

(Offered at BSC, ELC, JFC, MDC, OWC, SKY, SMC, WKC)
Available Completely Online

General Education:

**Area 1**

<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 OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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**Area 2**

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General Education Subtotal: 6

**Required Technical**:

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<tbody>
<tr>
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<td>3</td>
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<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 283</td>
<td>Principles of Management</td>
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<tr>
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<td>Applied Management Skills</td>
<td>3</td>
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<td>BAS 287</td>
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<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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<tr>
<td>ACC 201</td>
<td>Financial Accounting OR</td>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I AND</td>
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<tr>
<td>BAS 280</td>
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<tr>
<td>COE 199</td>
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Required Technical Subtotal: 22-28

Choose 11-12 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

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<td>BAS 260</td>
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<td>BAS 267</td>
<td>Introduction to Business Law</td>
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<td>BAS 274</td>
<td>Human Resource Management</td>
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<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>
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<td>OST 275</td>
<td>Office Management</td>
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<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</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</td>
<td>(3)</td>
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<tr>
<td>QMS 101</td>
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<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
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Approved Technical Courses: 11-12

Total Credits: 39-46

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>Hours</th>
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<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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**Area 2**

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General Education Subtotal: 6

**Required Technical**:

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<td>OST 105</td>
<td>Introduction to Information Systems</td>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business OR</td>
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<tr>
<td>BAS 170</td>
<td>Entrepreneurship*</td>
<td>3</td>
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<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
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<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management * OR</td>
<td>3</td>
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<td>BAS 267</td>
<td>Second Quantitative Reasoning Course*</td>
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<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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<td>Financial Accounting OR</td>
<td>3</td>
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<td>ACT 177</td>
<td>Entrepreneurial Accounting OR</td>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I AND</td>
<td>3</td>
</tr>
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<td>ACT 102</td>
<td>Fundamentals of Accounting II</td>
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<tr>
<td>BAS 280</td>
<td>Business Internship OR</td>
<td>1-3</td>
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<td>COE 199</td>
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<td>(1-4)</td>
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Required Technical Subtotal: 25-31

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

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<tr>
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<td>Entrepreneurship*</td>
<td>3</td>
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<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
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<tr>
<td>BAS 284</td>
<td>Applied Management Skills</td>
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<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
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<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
<td>3</td>
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<tr>
<td>ACC 202</td>
<td>Managerial Accounting</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>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
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Approved Technical Courses: 6

Total Credits: 37-43

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

Certificates

Accounting - 5202013119

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

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I AND</td>
<td>3</td>
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<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
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</table>

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

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<td>Payroll Accounting</td>
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<tr>
<td>ACT 277</td>
<td>Managerial Accounting Topics</td>
<td>3</td>
</tr>
<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>ACT 290</td>
<td>Selected Topics in Accounting (Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
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<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
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Total Credits: 39-46
Accounting Recordkeeping Specialist - 5202013429
(Offered at ASC, BSC, ELC, HEC, OW, MDC, MYC, SEC, SKY, WKC)

Required:
- ACC 201 Financial Accounting OR .......................... 3
- ACT 101 Fundamentals of Accounting I AND ................. (3)
- ACT 102 Fundamentals of Accounting II ....................... (3)
- ACT 196 Payroll Accounting ........................................ 3
- ACT 279 Computerized Accounting Systems .................. 3
- ACT 281 Individual Taxation ........................................ 3
- ACT 286 Financial Accounting Topics ......................... 3
- CIT 105 Introduction to Computers OR ....................... 3
- OST 105 Introduction to Information Systems ............... (3)

Total Credits: 18-21

Advanced Business Administration - 5202013129
(Offered at ASC, BSC, ELC, HEC, HPC, MDC, MYC, OW, SEC, SMC, WKC)

Available Completely Online

Required:
- BAS 282 Principles of Marketing .................................... 3
- BAS 283 Principles of Management .................................. 3
- BAS 267 Introduction to Business Law .......................... 3
- BAS 284 Applied Management Skills ............................. 3
- CIT 130 Productivity Software OR ............................... 3
- OST 240 Software Integration ....................................... (3)

Total Credits: 18-21

Business Transfer - 5202013149
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OW, SEC, SKY, WKC)

Available Completely Online

Required:
- ACC 201 Financial Accounting ................................. 3
- ACC 202 Managerial Accounting ............................... 3
- ECO 201 Principles of Microeconomics ....................... 3
- ECO 202 Principles of Macroeconomics ....................... 3
- STA 220 Statistics .................................................... 3

Total Credits: 15

Entrepreneurship – 5202013379
(Offered at ELC, GTW, HEC, HPC, MDC, OW, SEC, SKY, WKC)

Required:
- ACC 201 Financial Accounting ....................................... 3
- ACT 177 Entrepreneurial Accounting ........................... (3)
- BAS 170 Entrepreneurship ........................................... 3
- BAS 282 Principles of Marketing ................................. 3
- BAS 288 Personal and Organizational Leadership ............. 3

Total Credits: 12

Equine Business Management – 5202013479
(Offered at BLC, HEC)

Required:
- EQM 100 Introduction to Equine Studies ..................... 3
- EQM 120 Introduction to Commercial Breeding ............. 3
- EQM 140 Equine Business Management I ...................... 2
- BAS 160 Introduction to Business .............................. 3
- EQM 240 Equine Business Management II .................... 2
- EQM 242 Equine Law .................................................. 3
- EQM 246 Current Trends in the Equine Industry .......... 1
- PSY 100 General Psychology .................................... 3
- MGT 101 Quality Management Principles .................. 3

Total Credits: 23

Financial Perspectives - 5202013159
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, MDC, MYC, OW, SEC, SMC, WKC)

Available Completely Online

Required:
- ACC 201 Financial Accounting OR ............................ 3
- ACT 101 Fundamentals of Accounting I AND ................. (3)
- ACT 102 Fundamentals of Accounting II ....................... (3)
- BAS 160 Introductions to Business .............................. 3
- BAS 120 Personal Finance .......................................... 3

Total Credits: 9-12

General Business - 5202013169
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, MDC, MYC, OW, 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)
- ACT 101 Fundamentals of Accounting I OR ................. (3)
- ACC 201 Financial Accounting .................................... 3
- CUL 100 Culinary Arts Profession ............................. 2
- CUL 280 Management, Ethics & Society .................... (1-3)
- CUL 200 Sanitation & Safety .................................... 2
- CUL 105 Applied Fundamentals of the Culinary Arts Profession 2
- CUL 280 Cost & Control ........................................... 3
- HOS 100 Introduction to Hospitality ........................... 3
- HOS 280 Tourism Marketing ........................................ 3

Choose 9 hours from the following Technical Courses.
Students may select other courses (HOS or CUL) as approved by the Business Administration Systems Program Coordinator.

- BAS 200 Small Business Management ........................................ 3
- BAS 274 Human Resource Management ............................. 3
- COE 199 Cooperative Education: Business Administration OR ..... 1-3
- BAS 280 Business Internship OR .................................. (1-4)
- BAS 290 Management, Ethics & Society .................... (1-3)
- CUL 200 Sanitation & Safety .................................... 2
- CUL 105 Applied Fundamentals of the Culinary Arts Profession 2
- CUL 280 Cost & Control ........................................... 3
- HOS 160 Security for the Hospitality Industry ............... 3
- HOS 200 Cultural Heritage Tourism ......................... 3
- HOS 210 Front Office Operations & Management .......... 3
- HOS 230 Housekeeping & Maintenance Management ....... 3
- CUL 270 Human Relations Management ........................ 3

Total Credits: 17

Hospitality Management - 5202013179
(Offered at BLC, BSC, HEC, SEC, WKC)

Required:
- HOS 100 Introduction to Hospitality ........................... 3
- CUL 100 Culinary Arts Profession ............................. 2

Choose 9 hours from the following Technical Courses.

Choose 9 hours from the following Technical Courses.

- BAS 274 Human Resource Management ............................. 3
- BAS 287 Supervisory Management ................................ 3
- ACT 196 Payroll Accounting ....................................... 3

Total Credits: 17

Human Resource Management - 5202013359
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, MDC, MYC, OW, SEC, SKY, WKC)

Required:
- BAS 274 Human Resource Management ............................. 3
- BAS 287 Supervisory Management ................................ 3
- ACT 196 Payroll Accounting ....................................... 3

Total Credits: 17
Choose 9 hours from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

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<td>COE 199</td>
<td>Cooperative Education</td>
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<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
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<td>BAS 284</td>
<td>Applied Management Skills</td>
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<tr>
<td>BAS 288</td>
<td>Person &amp; Organizational Leadership</td>
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<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
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<td>BAS 299</td>
<td>Selected Topics in Management: (Track Topic)</td>
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<td>OST 275</td>
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<td>Introduction to Quality Systems</td>
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<td>PSY 180</td>
<td>Human Relations</td>
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<td>IFM 111</td>
<td>Client-Side Informatics Software</td>
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**Total Credits: 18**

**General Education:**

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**Required Technical:**

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<td>INDT 120</td>
<td>Industrial Safety</td>
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<td>INDT 233</td>
<td>Statistical Process Control</td>
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<td>BAS 274</td>
<td>Human Resource Management</td>
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**Choose 6 hours from the approved Technical Courses:**

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<td>Introduction to Business</td>
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<td>INDT 220</td>
<td>Introduction to Industrial Psychology</td>
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<td>ENV 101</td>
<td>Fundamentals of Environment Science</td>
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<td>Environment Management</td>
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<tr>
<td>INDT 250</td>
<td>Team Dynamics &amp; Problem – Solving</td>
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**Total Credits: 30**

**Informatics Fundamentals - 5202013449 (Offered at HEC, MYC, SEC, SMC)**

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<td>CIT 170</td>
<td>Database Design Fundamentals</td>
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<td>IFM 215</td>
<td>Information Systems Analysis</td>
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**Total Credits: 9**

**Informatics Business Analyst – 5202013459 (Offered at HEC, MYC, SEC, SMC)**

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<td>Business Data Communications</td>
<td>3</td>
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<td>IFM 235</td>
<td>Information Systems and Business Intelligence</td>
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<tr>
<td>IFM 111</td>
<td>Client-Side Informatics Software</td>
<td>3</td>
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</table>

**Total Credits: 6**

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

**Available Completely Online**

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ECO Any Economics Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
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</table>

**Total Credits: 12**

**Management - 5202013209 (Offered at ASC, BSC, ELC, GTW, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)**

**Available Completely Online**

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management OR</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 &amp; Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>BAS 291</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 299</td>
<td>Selected Topics Management: (Track Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 202</td>
<td>Performance Management</td>
<td>3</td>
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</table>

**Total Credit Hours: 15**

**Office Systems - 5202013219 (Offered at BSC, HEC, HZC, MDC, SEC, SMC, WKC)**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<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>OST 215</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OST 220</td>
<td>Administrative Office Software</td>
<td>3</td>
</tr>
</tbody>
</table>

**Choose 6 hours 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>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 150</td>
<td>Transcription and Office Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 216</td>
<td>Selected Topics in Office Systems: (Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 295</td>
<td>Office Systems Technology Internship OR</td>
<td>1-3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: (Business Technology) OR</td>
<td>1-3</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship</td>
<td>1-4</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits: 18**
### Operations Management - 5202013369
(Offered at ASC, 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 236 Production Management ................................................3
- COM 252 Introduction to Interpersonal Skills .............................(3)

**Total Credits** 12

**Payroll Accounting Specialist - 5202013439**

(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, SEC, SKY, WKC)

**Required:**
- ACC 201 Financial Accounting OR.............................................3
- ACT 101 Fundamentals of Accounting I AND ...............................(3)
- ACT 102 Fundamentals of Accounting II .....................................(3)
- ACT 196 Payroll Accounting ....................................................3
- ACT 279 Computerized Accounting Systems ................................3

**Total Credits** 9-12

**Pre-Licensing Real Estate - 5202013239**
(Offered at ASC, 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.

- BAS 120 Real Estate Marketing ................................................3
- REA 200 Real Estate Principles II .............................................3
- REA 225 Real Estate Finance ....................................................3
- REA 230 Real Estate Law .........................................................3

**Total Credits** 6

**Real Estate Pre-Brokerage Management - 5202013489**
(Offered at BLC, SEC)

- REA 100 Real Estate Principles I ..............................................3
- REA 220 Brokerage Management ................................................3
- REA 230 Real Estate Law .........................................................3

**Subtotal** 9

**Choose 9 hours from the following list:**

- REA 120 Real Estate Marketing ................................................3
- REA 121 Appraising .................................................................3
- REA 122 Construction and Blueprints ........................................3
- REA 201 Property Management ................................................3
- REA 202 Real Estate Investments I ............................................3
- REA 225 Real Estate Finance ....................................................3

**Subtotal** 9

**Additional General Education Requirements**

Choose 6 hours from the following:

- PSY 110 General Psychology .....................................................3
- ECO 201 Principles of Microeconomics .......................................3
- ACC 201 Financial Accounting ................................................3
- CIT 130 Productivity Software OR ............................................3
- OST 240 Software Integration ..................................................(3)

**Subtotal** 6

**Total Credits** 24

### Residential Real Estate - 5202013249
(Offered at BSC, ELC, MDC, MYC, 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

**Sales - 5202013259**

(Offered at BSC, ELC, GTW, MYC, OWC, SMC)

**Required:**
- BAS 155 Personal Selling .........................................................3
- COM 181 Basic Public Speaking OR ............................................3
- COM 252 Introduction to Interpersonal Communication ................(3)

**Choose 6 hours from the following Technical Courses.**

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

- BAS 291 Retail Management ....................................................3
- CIT 155 Web Page Development ...............................................3
- QMS 201 Customer Service Improvement Skills ..........................3
- BAS 260 Professional Development and Protocol ..........................2
- COE 199 Cooperative Education OR .........................................3
- BAS 280 Business Internship ..................................................(1-4)

**Total Credits** 12

### Small Business Management - 5202013269
(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 235 Second Quantitative Reasoning Course from General Education ..................................................(3)
- BAS 282 Principles of Marketing ...............................................3
- ACC 201 Financial Accounting OR ............................................3
- ACT 177 Entrepreneurial Accounting OR ....................................3
- ACT 101 Fundamentals of Accounting I AND ...............................(3)
- ACT 102 Fundamentals of Accounting II ....................................(3)
- BAS 287 Supervisory Management OR ........................................3
- BAS 288 Personal & Organization Leadership ............................(3)

**Total Credits** 18-21

### Supervisory Management - 5202013279
(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
- BAS 274 Human Resource Management ....................................3
Choose 6 hours from the following Technical Courses.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 21

Team Leadership - 5202013309

(Offered at BLC, BSC, ELC, HEC, JFC, MDC, MYC, OWC, SEC, SKY,WKC) Available Completely Online

Required Courses:

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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<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></td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communication Technology</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal &amp; Organizational Leadership</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose 3 hours 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>Hours</th>
</tr>
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<tbody>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
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<tr>
<td>QMS 202</td>
<td>Performance Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 18

Medical Information Technology

Medical Information Technology graduates prepare medical records and reports, maintain paper and electronic files, order supplies, perform accounting procedures, work with medical insurance and coding, and receive patients in a variety of health care settings. Some of the degree tracks include Medical Administrative Assistant, Medical Insurance Cod- er, and Electronic Medical Records. Students enrolled in the degree or diploma programs are required to do an internship or capstone course.

Progression in the Medical Information Technology program is contingent upon achievement of a grade of “C” or better in each course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Medical Information Technology - 5107167019

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

General Education:

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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MAT 105</td>
<td>Business Math OR</td>
<td>3</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td></td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory**</td>
<td>4</td>
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Total 19

Technical Core:

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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>MIT 230</td>
<td>Medical Information Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>MIT 101</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin</td>
<td>3</td>
</tr>
<tr>
<td>MIT 104</td>
<td>Medical Insurance</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>3</td>
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<tr>
<td>MIT 224</td>
<td>Medical Practice Management</td>
<td>3</td>
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<tr>
<td>MIT 228</td>
<td>Electronic Medical Records</td>
<td>3</td>
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</tbody>
</table>

Subtotal 30

Medical Administrative Track - 510716705

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OW, SKY, SMC, WKC) Available Completely Online

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<th>Course</th>
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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Application</td>
<td>3</td>
</tr>
</tbody>
</table>

Course Approved by Program Coordinator 3

Subtotal: 15

Total: 64

Medical Coding Track - 510716706

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OW, SMC, WKC) Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>MIT 204</td>
<td>Medical Coding</td>
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<td>MIT 205</td>
<td>Advanced Medical Coding</td>
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<tr>
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<td>Business Communication Technology</td>
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Course Approved by Program Coordinator 3

Subtotal: 15

Total: 64

Electronic Medical Records Track - 510716707

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OW, SMC, WKC) Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Application</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
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Courses Approved by Program Coordinator 6

Subtotal: 15

Total: 64

Medical Office Management Track – 510716709

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OW, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
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Courses Approved by Program Coordinator 3

Subtotal: 15

Total: 64
### General Education/Applied Academics

#### Technical or Support Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACT 101 Fundamentals of Accounting OR</td>
<td>3</td>
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<tr>
<td>ACC 201 Financial Accounting</td>
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<tr>
<td>OST 110 Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OST 233 Business Calculation for Office Professionals OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 105 Business Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>Higher Quantitative reasoning course</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 233 Business Communications Technology</td>
<td>3</td>
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<td>MIT 230 Medical Information Management</td>
<td>3</td>
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<tr>
<td>OST 210 Advanced Word Processing Application</td>
<td>3</td>
</tr>
<tr>
<td>OST 240 Software Integration OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130 Productivity Software</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103 Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 295 Medical Information Technology Capstone</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 217 Medical Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MIT 228 Electronic Medical Records</td>
<td>3</td>
</tr>
<tr>
<td>OST 105 Introduction to Information Systems OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 105 Introduction to Computers</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
<td>(3)</td>
</tr>
<tr>
<td>Course Approved by Program Coordinator</td>
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</tbody>
</table>

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

### Medical Records Specialist - 5107164069

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, SMC, WKC)  
Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 135 Basic Anatomy and Physiology with Laboratory**</td>
<td>4</td>
</tr>
<tr>
<td>OST 108 Editing Skills for Office Professionals OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
<td>(3)</td>
</tr>
</tbody>
</table>

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

### Medical Transcription Track - 510716708

(Offered at BLC, BSC, ELC, HZC, MYC, OWC, SMC,WKC)  
Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MIT 106 Introduction to Medical Transcription</td>
<td>3</td>
</tr>
<tr>
<td>MIT 206 Medical Transcription</td>
<td>3</td>
</tr>
<tr>
<td>OST 210 Advanced Word Processing Application</td>
<td>3</td>
</tr>
<tr>
<td>OST 235 Business Communications Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Course Approved by Program Coordinator**

### Diplomas

Medical Administrative Assistant - 5107164019

(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MDC, MYC, SKY, SMC, WKC)  
Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 101 Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201 Financial Accounting</td>
<td>(3)</td>
</tr>
<tr>
<td>BIO 135 Basic Anatomy and Physiology with Laboratory**</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 230 Medical Information Management</td>
<td>3</td>
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<tr>
<td>OST 210 Advanced Word Processing Application</td>
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<td>OST 240 Software Integration OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130 Productivity Software</td>
<td>(3)</td>
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<tr>
<td>MIT 103 Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115 Medical Terminology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>CLA 131 Medical Terminology from Greek &amp; Latin</td>
<td>(3)</td>
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<tr>
<td>MIT 295 Medical Information Technology Capstone</td>
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<tr>
<td>MIT 217 Medical Office Procedures</td>
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<td>MIT 228 Electronic Medical Records</td>
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<tr>
<td>Total 7</td>
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</table>

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

### Medical Unit Coordinator - 5107163019

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWCC, SEC, SKY, SMC, WKC)  
Available Completely Online

<table>
<thead>
<tr>
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<tr>
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<td>BIO 135 Basic Anatomy and Physiology with Laboratory**</td>
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<td>OST 108 Editing Skills for Office Professionals OR</td>
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<td>(3)</td>
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<td>MIT 103 Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115 Medical Terminology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>CLA 131 Medical Terminology from Greek &amp; Latin</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 217 Medical Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MIT 224 Medical Practice Management</td>
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</tr>
<tr>
<td>MIT 228 Electronic Medical Records</td>
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<td>Total 31</td>
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**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, OWCC, SEC, SKY, SMC, WKC)  
Available Completely Online

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>OST 105 Introduction to Information Systems OR</td>
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<td>(3)</td>
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<td>CIT 110 Document Formatting and Word Processing</td>
<td>3</td>
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<td>MIT 230 Medical Information Management</td>
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<tr>
<td>MIT 103 Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115 Medical Terminology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>CLA 131 Medical Terminology from Greek &amp; Latin</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 217 Medical Office Procedures</td>
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<tr>
<td>MIT 224 Medical Practice Management</td>
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<td>MIT 228 Electronic Medical Records</td>
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### Available Completely Online

- **Medical Transcription Track - 510716708**
- **Medical Records Specialist - 5107164069**
- **Medical Administrative Assistant - 5107164019**
- **Medical Unit Coordinator - 5107163019**
- **Medical Receptionist - 5107163110**
### Medical Coding - 5107163079

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

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<th>Course Title and Description</th>
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<tbody>
<tr>
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<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Lab</td>
<td>4</td>
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<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>4</td>
</tr>
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<td>AHS 115</td>
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<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin</td>
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<td>MIT 104</td>
<td>Medical Insurance</td>
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<td>MIT 204</td>
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**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.**

### Medical Transcriptionist – 5107163089

(Offered by BLC, BSC, ELC, HZC, MDC, HPC, OW C, SKY, SMC, WKC)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title and Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>OST 108</td>
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<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>AHS 115</td>
<td>Medical Terminology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin</td>
<td>(3)</td>
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<td>MIT 106</td>
<td>Introduction to Medical Transcription</td>
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<td>Medical Transcription</td>
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<td>MIT 217</td>
<td>Medical Office Procedures</td>
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### Electronic Health Records Specialist – 5107163069

(Offered by ASC, BLC, ELC, HZC, MDC, HPC, OwC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title and Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 104</td>
<td>Medical Insurance</td>
<td>3</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MIT 224</td>
<td>Medical Practice Management</td>
<td>3</td>
</tr>
<tr>
<td>MIT 228</td>
<td>Electronic Medical Records</td>
<td>3</td>
</tr>
<tr>
<td>MIT 230</td>
<td>Medical Information Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>(3)</td>
</tr>
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<td>OST 105</td>
<td>Introduction to Information Systems OR</td>
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<td>CIT 105</td>
<td>Introduction to Computers</td>
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### Medical Scribe – 5107163099

(Offered by BSC, BLC, ELC, HZC, JFC, MDC, MYC, OwC, SKY, SMC)

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<tbody>
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<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Lab</td>
<td>4</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>(3)</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin OR</td>
<td>(3)</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>
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<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>3</td>
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<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>
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<td>OST 105</td>
<td>Introduction to Information Systems OR</td>
<td>3</td>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>(3)</td>
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</tbody>
</table>

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

### Supply Chain Management

The Supply Chain Management AAS degree incorporates knowledge of the field of logistics, supply chain management, quality management, lean concepts and application, business and operations management, critical communication skills, and digital literacy required for successful employment in the logistics industry. The program will prepare students to perform functions in the modern logistics and supply chain management environment as well as give the preparation to obtain two national industry credentials (CLA and CLT) as a result.

The Supply Chain Specialist Certificate program prepares students for skilled entry-level positions in the field of Logistics. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Quality Technician Certificate program prepares students with quality management knowledge and strategic concepts of planning as a proactive catalyst for organizational and quality improvement in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Operations Certificate program provides students with knowledge in business, operations, and project management leading to a variety of positions in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

### Associate in Applied Science

#### Supply Chain Management – 5202037029

(Offered at GTW)

<table>
<thead>
<tr>
<th>Category</th>
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<td>Business Communications</td>
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<td></td>
<td>BAS 160</td>
<td>Introduction to Business</td>
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<td>BAS 256</td>
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<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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<td>BAS 289</td>
<td>Operations Management</td>
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<td>LOM 101</td>
<td>Transportation</td>
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<td>Customer Improvement Skills</td>
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<td></td>
<td>QMS 212</td>
<td>Project Management OR</td>
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<td>MGT 258</td>
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**Total Credits** 60-66
### Certificate

**Supply Chain Specialist – 5202033059**  
*(Offered at GTW, HPC)*

<table>
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<tbody>
<tr>
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<tr>
<td>LOM 100 Introduction to Logistics Management</td>
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<tr>
<td>LOM 102 Supply Chain Management</td>
<td>3</td>
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<td>LOM 210 Lean for Logistics</td>
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<td>QMS 101 Introduction to Quality Systems</td>
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<tr>
<td>QMS 251 Strategic Quality Planning</td>
<td>3</td>
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<tr>
<td>OSM 235 Business Communications OR</td>
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<td>COM 252 Interpersonal Communications</td>
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### Certificate

**Logistics Quality Technician – 5202033069**  
*(Offered at GTW, HPC)*

<table>
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<th>Course</th>
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<tr>
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<td>LOM 100 Introduction to Logistics Management</td>
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<td>QMS 251 Strategic Quality Planning</td>
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<td>OSM 235 Business Communications OR</td>
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<td><strong>Total Credits</strong></td>
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### Certificate

**Logistics Operations – 5202033079**  
*(Offered at GTW, HPC)*

<table>
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<tbody>
<tr>
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<tr>
<td>LOM 100 Introduction to Logistics Management</td>
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<td>LOM 102 Supply Chain Management</td>
<td>3</td>
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<td>LOM 210 Lean for Logistics</td>
<td>3</td>
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<tr>
<td>BAS 289 Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>QMS 212 Project Management OR</td>
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</tr>
<tr>
<td>MGT 258 Project Management</td>
<td>3</td>
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<tr>
<td>OSM 235 Business Communications OR</td>
<td>3</td>
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<td>COM 252 Interpersonal Communications</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
<td><strong>21</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**  
*(Offered at ASC, BSC, OWC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
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<td>CPR 100 CPR for Healthcare Professionals</td>
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<tr>
<td>NAA 100 Nursing Assistant Skills I</td>
<td>3</td>
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<tr>
<td>PHB 152 Phlebotomy: Clinical Experience</td>
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<td><strong>Total</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**  
*(Offered at ASC, BSC, HZC, GTW, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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<td>ACT 101 Fundamentals of Accounting I AND</td>
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<tr>
<td>ACT 102 Fundamentals of Accounting II</td>
<td>3</td>
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<tr>
<td>ECO 201 Principles of Microeconomics OR</td>
<td>3</td>
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<tr>
<td>ECO 101 Contemporary Economic Issues OR</td>
<td>3</td>
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<td>ECO 202 Principles of Macroeconomics</td>
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Select 9 (nine) credit hours from the following technical courses*:

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<tr>
<td>BAS 290 Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288 Personal &amp; Organizational Leadership</td>
<td>3</td>
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<tr>
<td>QMS 240 Statistics for Quality</td>
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<td>QMS 212 Project Management</td>
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**BAS 290 pre-requisite is BAS 283 or Consent of Instructor. BAS 283 pre-requisite is BAS 160 or Consent of Instructor.**  
**QMS 240 pre-requisite is MAT 150.**

### Certified Medical Technician

The program bundles the current classes of NAA100, PHB152, PHB170 and CPR100. Once all of these classes are completed successfully the graduate will be eligible to receive the certified medical technician certificate. The program allows the graduate to either enter the healthcare field with a varied technical skill set and/or enter a healthcare program.

### Certificates

**Certified Medical Technician – 5108993039**  
*(Offered at MDC, SMC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CPR 100 CPR for Healthcare Professionals</td>
<td>1</td>
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<tr>
<td>NAA 100 Nursing Assistant Skills I</td>
<td>3</td>
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<tr>
<td>PHB 152 Phlebotomy: Clinical Experience</td>
<td>3</td>
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<tr>
<td>PHB 170 Applied Phlebotomy</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>
## 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

**Required**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II*</td>
<td>3</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer-Aided Design OR</td>
<td>3</td>
</tr>
<tr>
<td>ACH 185</td>
<td>Computer-Aided Drafting I</td>
<td>(3)</td>
</tr>
<tr>
<td>MA 109</td>
<td>College Algebra*</td>
<td>3</td>
</tr>
<tr>
<td>PHY 211</td>
<td>General Physics*</td>
<td>5</td>
</tr>
<tr>
<td>CET 160</td>
<td>Building Materials and Construction I</td>
<td>3</td>
</tr>
<tr>
<td>CET 225</td>
<td>Structures</td>
<td>3</td>
</tr>
<tr>
<td>CET 260</td>
<td>Hydrology and Drainage</td>
<td>3</td>
</tr>
<tr>
<td>MA 112</td>
<td>Trigonometry</td>
<td>2</td>
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**Total** 67

#### Technical Electives**

<table>
<thead>
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<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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<tr>
<td>ACH 160</td>
<td>Building Materials and Construction I</td>
<td>3</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Building Codes I</td>
<td>3</td>
</tr>
<tr>
<td>CET 280</td>
<td>Highway Design</td>
<td>3</td>
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<tr>
<td>CET 295</td>
<td>Independent Problems</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education: CET</td>
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</tr>
<tr>
<td>GIS 110</td>
<td>Spatial Data Analysis and Map Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>GIS 120</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GLY 220</td>
<td>Principles of Physical Geology</td>
<td>4</td>
</tr>
</tbody>
</table>

* Satisfies General Education requirement for AAS degree

**Other course(s) approved by program coordinator

## Community Dental Health Coordinator

This program is designed for Registered Dental Hygienists (RDHs) who are interested in working in community dental health as Community Dental Health Coordinators (CDHCs). A CDHC is a Community Health Worker (CHW) with a focused skill set pertaining to oral health. CDHCs provide oral health education, prevention intervention, and low level dental care while helping patients navigate the public health system in pursuit of oral health care.

### Certificate

#### Community Dental Health Coordinator – 5122083009

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDH 110</td>
<td>Dental Health Communication Skills</td>
<td>3</td>
</tr>
<tr>
<td>CDH 115</td>
<td>Dental Health Coordination, Reporting, and Finance</td>
<td>3</td>
</tr>
<tr>
<td>CDH 125</td>
<td>Dental Health Teaching and Learning Skills</td>
<td>2</td>
</tr>
<tr>
<td>CDH 220</td>
<td>Prevention of Periodontal Disease</td>
<td>3</td>
</tr>
<tr>
<td>CDH 245</td>
<td>Community Dental Health Coordinator Internship</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total** 17

### Computer Aided Drafting and Design

A computer aided drafter and designer is a technical specialist with a 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

**General Education:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Quantitative Reasoning (MAT 105 excluded)</td>
<td>3</td>
</tr>
<tr>
<td>MA 109</td>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>MA 112</td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>CET 160</td>
<td>Oral Communications Course*</td>
<td>3</td>
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</table>

**Total** 18

#### Technical Core:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 103</td>
<td>CAD Fundamentals (Digital Literacy Course) OR</td>
<td>4</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design AND</td>
<td>(3)</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer Aided Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 201</td>
<td>Parametric Modeling</td>
<td>4</td>
</tr>
<tr>
<td>CAD 298</td>
<td>Practicum OR</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Subtotal** 18
CAD 299 Cooperative Education ........................................... (1-3)
Technical Electives
(Choose from the Technical Electives List) .................................. 22
Subtotal 42-47

Total Credits 60-65

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

Technical Electives: (This list is not all inclusive, other courses may be taken as approved by the program coordinator such as courses with prefix ACH, BRX, CAR, SMT, and PLW.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 108</td>
<td>Introduction to Surveying</td>
<td>3</td>
</tr>
<tr>
<td>CAD 120</td>
<td>Introduction to Architecture</td>
<td>4</td>
</tr>
<tr>
<td>CAD 150</td>
<td>Programming in CAD</td>
<td>4</td>
</tr>
<tr>
<td>CAD 212</td>
<td>Industrial Drafting Processes</td>
<td>4</td>
</tr>
<tr>
<td>CAD 216</td>
<td>Building Information Modeling</td>
<td>4</td>
</tr>
<tr>
<td>CAD 222</td>
<td>Mechanical Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 220</td>
<td>Architectural Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 230</td>
<td>Construction Techniques</td>
<td>4</td>
</tr>
<tr>
<td>CAD 240</td>
<td>Advanced Dimensioning and Measurement</td>
<td>4</td>
</tr>
<tr>
<td>CAD 252</td>
<td>Commercial Detailing</td>
<td>4</td>
</tr>
<tr>
<td>CAD 262</td>
<td>Working Drawings</td>
<td>4</td>
</tr>
<tr>
<td>CAD 292</td>
<td>Industrial Applications</td>
<td>4</td>
</tr>
<tr>
<td>CAD 293</td>
<td>Special Problems</td>
<td>1-4</td>
</tr>
<tr>
<td>DPT 100</td>
<td>Introduction to 3D Printing Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Diploma

Computer Aided Drafting and Design - 1513014049
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, WKC)
Available Completely Online

General Education:
Area 1: Written Communication, Oral Communications or Humanities/Heritage .................................. 3
Area 2: Quantitative Reasoning (MAT 105 excluded) .................................. 3
Subtotal 6

Technical Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 103</td>
<td>CAD Fundamentals (Digital Literacy Course)</td>
<td>4</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design AND</td>
<td>3</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer Aided Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 201</td>
<td>Parametric Modeling</td>
<td>4</td>
</tr>
<tr>
<td>CAD 298</td>
<td>Practicum OR</td>
<td>1-3</td>
</tr>
<tr>
<td>CAD 299</td>
<td>Cooperative Education</td>
<td>1-3</td>
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</tbody>
</table>
| Technical Electives
(Choose from the Technical Electives List) .................................. 22
| CAD 108    | Introduction to Surveying                       | 3       |
| CAD 120    | Introduction to Architecture                     | 4       |
| CAD 130    | Descriptive Geometry                             | 4       |
| CAD 150    | Programming in CAD                               | 4       |
| CAD 212    | Industrial Drafting Processes                    | 4       |
| CAD 216    | Building Information Modeling                    | 4       |
| CAD 222    | Mechanical Design                                | 4       |
| CAD 220    | Architectural Design                             | 4       |
| CAD 230    | Construction Techniques                          | 4       |
| CAD 240    | Advanced Dimensioning and Measurement            | 4       |
| CAD 252    | Commercial Detailing                             | 4       |

Subtotal 42-47

Total Credit 48-53

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

Technical Electives: (This list is not all inclusive, other courses may be taken as approved by the program coordinator such as courses with prefix ACH, BRX, CAR, SMT, and PLW.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 262</td>
<td>Working Drawings</td>
<td>4</td>
</tr>
<tr>
<td>CAD 292</td>
<td>Industrial Applications</td>
<td>4</td>
</tr>
<tr>
<td>CAD 293</td>
<td>Special Problems</td>
<td>1-4</td>
</tr>
<tr>
<td>DPT 100</td>
<td>Introduction to 3D Printing Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Certificates

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

General Education:
Written Communication, Oral Communications, or Humanities/Heritage .................................. 3
Quantitative Reasoning (MAT 105 excluded) .................................. 3
Subtotal 6

Technical Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 103</td>
<td>CAD Fundamentals (Digital Literacy Course)</td>
<td>4</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer Aided Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 201</td>
<td>Parametric Modeling</td>
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<tr>
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<td></td>
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</table>

Subtotal 20

Total Credits 26

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

General Education:
Written Communication, Oral Communications, or Humanities/Heritage .................................. 3
Quantitative Reasoning (MAT 105 excluded) .................................. 3
Subtotal 6

Technical Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 103</td>
<td>CAD Fundamentals (Digital Literacy Course)</td>
<td>4</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals</td>
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<td>Engineering Graphics</td>
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Subtotal 8

Total Credits 14

Civil Drafter - 1513013049
(Offered at ASC, BLC, BSC, HZC, SEC)

General Education:
Quantitative Reasoning (MAT 105 excluded) .................................. 3
Subtotal 3
Technical Core:

<table>
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<th>Course</th>
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<tr>
<td>CAD 103</td>
<td>CAD Fundamentals (Digital Literacy Course)</td>
<td>4</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals</td>
<td>4</td>
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<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
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Subtotal 12

Surveying Core:

Choose 9-12 hours from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 108</td>
<td>Introduction to Surveying</td>
<td>3</td>
</tr>
<tr>
<td>CAD 130</td>
<td>Descriptive Geometry</td>
<td>4</td>
</tr>
<tr>
<td>SMT 110</td>
<td>Principles of Surveying</td>
<td>4</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
<tr>
<td>SMT 160</td>
<td>Construction Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 210</td>
<td>Advanced Surveying Measurement</td>
<td>3</td>
</tr>
<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>
</tbody>
</table>

Subtotal 9-12

Total Credits 24-27

3D Modeler – 1513013099

(Offered at BLC, ELC, HPC, HZC, JFC, SEC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>CAD 100</td>
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<td>3</td>
</tr>
<tr>
<td>CAD 103</td>
<td>CAD Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate CAD</td>
<td></td>
</tr>
<tr>
<td>CAD 201</td>
<td>Parametric Modeling</td>
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<tr>
<td></td>
<td>Technical Electives</td>
<td>5-7</td>
</tr>
</tbody>
</table>

Total Credits 16-19

Computer & Information Technologies


This program includes tracks in Business Software and Support, Data Center Technologies, Geospatial Technologies, Informatics, Information Security, Internet Technologies, Network Administration, Networking 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, Internet technologies, database design, and collaborative system development. In addition to core courses, students take specialty courses for their selected track.

- Students graduating with a degree or certificate in Computer & Information Technologies may only use a course with a grade of “C” or higher (or a “Pass” for Pass/Fail courses) to fulfill a core or track graduation requirement.

- The Computer & Information Technologies department does not accept non-Gen Ed courses older than 5 years from returning or transfer students without consent from the local program coordinator.

- Students may not use one course to fulfill multiple requirements.

The Business Software and Support Track emphasizes several aspects of application software. It includes such productivity applications as: word processing, spreadsheets, database management, presentation, geograph-

ic 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.

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 DoL Geospatial Technology Competency Model (GTCM) and the NSF funded GeoTech Center model courses. Completers of the Associate of Applied Science degree 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.

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 Network Technologies track provides the concepts and skills needed to set up, maintain, and expand networked computer systems. This track requires sequences in Microsoft Windows, Cisco, and UNIX/Linux as well as courses providing deeper insight into Internet protocols and network security. Employment opportunities include entry-level positions in installation and administration of local area networks in medium to large organizations and as computer network administrators in small business.

The Programming track prepares students to design, develop, and maintain computer programs written in current and emerging programming
languages. With tracks in Information Systems and Software Development, students successfully completing this track are prepared for entry-level positions in computer programming.

Information Systems - This track is designed with an emphasis on programming for a business environment. Students completing the Information Systems track study basic business concepts, one programming language at an advanced level, and two programming languages at an introductory level.

Software Development - This track emphasizes computer software development. Students completing the Software Development track study a minimum of two computer programming languages at an advanced level and additional programming language(s) at an introductory level. Flexibility within this track allows students to focus on a specific area of software development by means of the programming languages they choose to study (object-oriented programming, database programming, game development, etc.). The Computer Science track prepares students interested in an advanced study of computer programming. The curriculum couples the study of programming with computer science concepts such as computational complexity, advanced data structures, and proof techniques. The curriculum may also be used to prepare students for entry into bachelor-level programs in computer science.

The Video Game Design track prepares students to design, develop, and market digital games and simulations. This track focuses on game development with an emphasis on game programming.

The Data Center Technologies track provides experience with Cloud computing areas such as virtualization, storage, security, high availability and adherence to standards in provisioning of computing resources that meet business and organizational needs. The curriculum may be used to prepare students for entry level positions in organizations that manage and design data centers.

Computer Technician Certificate
The Computer Technician Certificate offers students the opportunity to earn a credential demonstrating computer technician competencies. This certificate consists of the core skills that students need to achieve the industry A+ and Security+ certifications. In addition, this certificate will provide a way for professionals currently in the industry to update their technician skills and for new students to show progress in the CIT program.

CIT Fundamentals Certificate
The CIT Fundamentals Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computers. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency.

Productivity Software Specialist Certificate
The Productivity Software Specialist Certificate offers students the opportunity to earn a credential demonstrating productivity software competencies. This certificate consists of the core skills that students need to effectively use various productivity software products. In addition, this certificate will provide a way for professionals currently in the industry to update their productivity software skills and for new students to show progress in the CIT program.

Computer Tech Basic Certificate
The Computer Tech Basic Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer information technology. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency. The Computer Tech Basic Certificate prepares students for the CompTIA A+ and Net+ certification exams which are recognized by the computer industry around the world.

Computer Support Technician Certificate
The Computer Support Technician Certificate offers students the opportunity to earn a credential demonstrating computer support technician competencies. The certificate consists of the core skills that students need for computer and end-user support. In addition, this certificate will provide a way for professionals currently in the industry to update their computer support technician skills and for new students to show progress in the CIT program.

Information Security Specialist Certificate
The Information Security Specialist Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their information security skills and for new students to show progress in the CIT program.

Microsoft Network Administrator Certificate
The Microsoft Network Administrator Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program.

CISCO Networking Associate Certificate
The CISCO Networking Associate Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA exam which is recognized by the computer industry around the world.

Network Technologies Specialist Certificate
The Network Technologies Specialist Certificate offers students the opportunity to earn a credential demonstrating 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.
Net+ Prep Certificate
The Net+ Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Net+ Certificate prepares students for the CompTIA Net+ exam which is recognized by the computer industry around the world.

Security + Prep Certificate
The Security+ Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Security+ Certificate prepares students for the CompTIA Security+ exam which is recognized by the computer industry around the world.

CISCO Networking Enhanced Certificate
The CISCO Networking Enhanced Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA and Net+ exams which are recognized by the computer industry around the world.

A+ Prep Certificate
The A+ Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer hardware and software. The certificate consists of one course that prepares students for the CompTIA A+ certification exams which are recognized by the computer industry around the world. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of proficiency.

Microsoft Enterprise Administrator Certificate
The Microsoft Enterprise Administrator certificate offers students the opportunity to earn a credential demonstrating skills in the administration and design of Microsoft enterprise networks. This certificate consists of the core skills that students need to effectively plan, build, and maintain a Microsoft network. In addition, this certificate will provide a way for professionals currently in the industry to update their Microsoft network administrator skills.

Programming Certificate
The Software Developer Certificate offers students the opportunity to earn a credential demonstrating programming competencies. This certificate consists of the core skills that students need to effectively develop programs using multiple computer languages. In addition, this certificate will provide a way for professionals currently in the industry to update their programming skills and for new students to show progress in the CIT program.

Web Programming Certificate
The Web Programming Certificate offers students the opportunity to earn a credential demonstrating web programming competencies. This certificate consists of the core skills that students need to effectively develop websites using web programming. In addition, this certificate will provide a way for professionals currently in the industry to update their web programming skills and for new students to show progress in the CIT program.

Web Administration Certificate
The Web Administration Certificate offers students the opportunity to earn a credential demonstrating web administration competencies. This certificate consists of the core skills that students need to effectively maintain web sites through network and web server administration. In addition, this certificate will provide a way for professionals currently in the industry to update their web administration skills and for new students to show progress in the CIT program.

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

Digital Forensics Certificate
The Digital Forensics Certificate offers students the opportunity to earn a credential demonstrating skills in digital forensics. Digital forensics covers the retrieval and investigation of material found in digital devices. Digital material refers to all methods of electronic data storage and transfer devices, including computers, laptops, cell phones, tablets, gaming consoles, and portable storage devices. The goal of digital forensics is to ensure the integrity of that digital material while thoroughly examining it. Digital forensics requires in-depth knowledge of the understanding of the legal as well as the technical aspects of cyber-crime. This certificate consists of the core skills that students need to demonstrate in basic digital 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.

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.

Video Game Design Certificate
The Video Game Design Certificate prepares students to design, develop, and market digital games and simulations.

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

This certificate offers students the opportunity to earn a credential demonstrating informatics programming competencies. It consists of core abilities that students need to design well-structured databases and effectively develop secure applications using an object-oriented programming language to interface with databases.

Associate in Applied Science

Computer and Information Technologies - 1101017089

(Offered at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, 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

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
CIT 204 Approved Level I Networking Course ...............4
CIT 212 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, BSC, HZC, HEC, HPC, JFC, MDC, MYC, OWC, SEC, WKC)

CIT 130 Productivity Software ....................................3
CIT 234 Advanced Productivity Software ....................3
CIT 236 Advanced Data Organization Software ............3
CIT 253 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 ..................................................3
Oral Communications Course ...................................3
Subtotal 9

Information Security Track - 110101712

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

CIT 182 Perimeter Defense ............................................3
CIT 184 Attacks and Exploits ........................................3
CIT 217 Approved Network Elective Course ..................6
Approved Security Elective Course ..............................3
Approved CIT Technical Course(s) ...........................3
Track Subtotal 21
Total 60

Internet Technologies Track - 110101710

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

Complete two of the following not taken in the program core:

CIT 150 Internet Technologies ........................................3
CIT 155 Web Page Development ................................3
CIT 157 Web Site Design and Production ....................3
Subtotal 6

CIT 257 Applied Internet Technologies OR .....................3
CIT 258 Internet Technologies Seminar .......................3
Completion of an Internet Technologies Track Course Sequence in:
Web Programming OR
Web Administration ................................................12
Track Subtotal 21
Total 60

*Internet Technologies Track Course Sequences:

Web Programming Course Sequence:

Approved Level I Web Programming Language Course ........3
Approved Level II Web Programming Language Course ......3
CIT 171 SQL I .................................................................3
CIT 253 Data Driven Web Pages: Topic .......................3
Sequence Subtotal 12

Web Administration Course Sequence:

CIT 219 Internet Protocols .............................................3
CIT 255 Web Server Administration .............................3
CIT 214 Microsoft Server Configuration AND ................3
CIT 215 Microsoft Server Administration .....................3
OR
CIT 214 Microsoft Server Configuration AND ................3
CIT 216 Microsoft Server Advanced Services .................3
OR
CIT 217 LINUX/Linux Administration AND ..................3
CIT 218 LINUX/Linux Net Infrastructure .......................3
Sequence Subtotal 12

Subtotal 60
Network Administration Track - 110101708
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKY)
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

Network Administration Track Course Sequences:

Microsoft Windows Administration Course Sequence

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>CIT 213</td>
<td>Microsoft Client Configuration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 214</td>
<td>Microsoft Server Configuration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 215</td>
<td>Microsoft Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 216</td>
<td>Microsoft Server Advanced Series</td>
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Cisco Networking Associate Course Sequence

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<thead>
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<th>Course</th>
<th>Title</th>
<th>Credit</th>
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<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>4</td>
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<tr>
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<td><strong>12</strong></td>
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Network Technologies Track - 110101713
(Offered at ASC, BLC, HEC, MDC, MYC, OWC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>CIT 219</td>
<td>Internet Protocols</td>
<td>3</td>
</tr>
<tr>
<td>CIT 288</td>
<td>Network Security</td>
<td>3</td>
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<tr>
<td>Select 15 hours from the courses listed below. At least 8 hours must be from single platform and at least 4 hours must be from a different platform:</td>
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<td></td>
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<tr>
<td>CIT 214</td>
<td>Microsoft Server Configuration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 215</td>
<td>Microsoft Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 216</td>
<td>Microsoft Server Advanced Series</td>
<td>3</td>
</tr>
<tr>
<td>Other Microsoft networking courses as approved by local Program coordinator</td>
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Total 60-63

Approved Network Technologies Course Sequences *

Microsoft Platform

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>CIT 213</td>
<td>Microsoft Client Configuration</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 214</td>
<td>Microsoft Server Configuration</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 215</td>
<td>Microsoft Server Administration</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 216</td>
<td>Microsoft Server Advanced Series</td>
<td>(3)</td>
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UNIX/Linux Platform

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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<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>Credit</th>
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<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>(4)</td>
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</table>

Data Center Platform

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</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>
<td>(3)</td>
</tr>
<tr>
<td>CIT 205</td>
<td>Cloud Infrastructure and Services</td>
<td>(3)</td>
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Programming Track - 110101709
(Offered at BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKY)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>3</td>
</tr>
<tr>
<td>Approved CIT Technical Courses</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Approved Management or Business Course</td>
<td>3</td>
<td></td>
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<tr>
<td>Approved Business Course</td>
<td>3</td>
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<td><strong>Sequence Subtotal</strong></td>
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Programming Software Development

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CIT 150</td>
<td>Internet Technologies OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development OR</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 157</td>
<td>Web Site Design and Production</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 253</td>
<td>Data-Driven Web Pages, Topic</td>
<td>3</td>
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<tr>
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Video Game Design Track - 110101715
(Offered at BLC, HEC, HZC, MDC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>CIT/IMD  124</td>
<td>Seminar in Game Development</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD  221</td>
<td>Computer Graphics AND</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD  222</td>
<td>3D Modelling AND</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD  223</td>
<td>3D Animation AND</td>
<td>3</td>
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<tr>
<td>CIT/IMD  273</td>
<td>Game Production AND</td>
<td>3</td>
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<td>CIT/IMD  290</td>
<td>Video Game Design Elective</td>
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Total 60

Data Center Technologies Track – 110101716
(Offered at BLC, JFC, WKY)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<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 203</td>
<td>Microsoft Server Configuration</td>
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</tr>
<tr>
<td>CIT 214</td>
<td>Unix/Linux Administration</td>
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<tr>
<td>CIT 217</td>
<td>Introduction to Virtualization</td>
<td>3</td>
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<tr>
<td>CIT 203</td>
<td>VMware Optimize and Scale</td>
<td>3</td>
</tr>
<tr>
<td>CIT 204</td>
<td>Cloud Infrastructure and Services</td>
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Total 61

Geospatial Technologies Track– 110101718
(Offered at BLC, JFC, WKY)

<table>
<thead>
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<th>Course</th>
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<tr>
<td>CIT 125</td>
<td>Introduction to Digital Maps</td>
<td>3</td>
</tr>
<tr>
<td>CIT 225</td>
<td>GIS Software Tools</td>
<td>3</td>
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<tr>
<td>GIS 145</td>
<td>Remote Sensing</td>
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<td>GIS 255</td>
<td>Geospatial Programming</td>
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<td>GIS 260</td>
<td>GIS Web Mapping</td>
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<td>CIT 229</td>
<td>Selected Topics in GIS</td>
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<td>CIT 290</td>
<td>Internship</td>
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Total 60
Informatics Track - 110101719

(Offered at)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>CIT 150</td>
<td>Internet Technologies OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development OR</td>
<td>3</td>
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<td>CIT 157</td>
<td>Web Site Design and Production</td>
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<tr>
<td>CIT 249</td>
<td>Java II OR</td>
<td>3</td>
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<tr>
<td>INF 260</td>
<td>Object-Oriented Programming I</td>
<td>3</td>
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<td></td>
<td>Business OR</td>
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<td>Data Science OR</td>
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<td></td>
<td>Informatics Programming</td>
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Informatics Track Course Sequences:

**Business:**

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<tbody>
<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 OR</td>
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<tr>
<td>INF 138</td>
<td>Principles of Informatics (3)</td>
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<tr>
<td>IFM 211</td>
<td>Collaborative Software OR</td>
<td>3</td>
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<td>IFM 225</td>
<td>Advanced Informatics OR</td>
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</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting OR</td>
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<td>ACC 202</td>
<td>Managerial Accounting OR</td>
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<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics OR</td>
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<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
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**Data Science:**

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<tr>
<td>MAT 155</td>
<td>Trigonometry</td>
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<tr>
<td>MAT 174</td>
<td>Calculus I OR</td>
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<tr>
<td>MA 113</td>
<td>Calculus I (4)</td>
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<tr>
<td>CS 275</td>
<td>Discrete Math OR</td>
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<td>STA 210</td>
<td>Statistics: A Force in Human Judgement OR</td>
<td>3</td>
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<tr>
<td>STA 220</td>
<td>Statistics OR</td>
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<td>STA 296</td>
<td>Statistical Methods and Motivations</td>
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**Informatics Programming:**

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<td>CIT 253</td>
<td>Data Driven Web Pages</td>
<td>3</td>
</tr>
<tr>
<td>CS 215</td>
<td>Introduction to Program Design, Abstraction, and Problem Solving OR</td>
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</tr>
<tr>
<td>CIT 242</td>
<td>C++ II OR</td>
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<tr>
<td>CIT 243</td>
<td>C# II</td>
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<tr>
<td>CS 216</td>
<td>Introduction to Software Engineering OR</td>
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<td>STA 210</td>
<td>Statistics: A Force in Human Judgement OR</td>
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**Course Choice Lists**

**Approved Business Courses**

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<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
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<tr>
<td>ACT 101</td>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
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<td>Principles of Informatics</td>
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<td>Collaboration Software</td>
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**Approved Management Courses**

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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
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<td>BAS 287</td>
<td>Supervisory Management</td>
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<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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<td>OST 275</td>
<td>Office Management</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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**Approved Level I Networking Courses**

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<td>CIT 160</td>
<td>Intro to Networking Concepts</td>
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<td>Introduction to Networks</td>
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**Approved Network Elective Courses**

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<td>CIT 167</td>
<td>Routing &amp; Switching Essentials</td>
<td>4</td>
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<td>CIT 209</td>
<td>Scaling Networks</td>
<td>4</td>
</tr>
<tr>
<td>CIT 212</td>
<td>Connecting the Networks</td>
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<tr>
<td>CIT 214</td>
<td>Microsoft Server Configuration</td>
<td>3</td>
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<td>CIT 215</td>
<td>Microsoft Server Administration</td>
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<td>Microsoft Server Advanced Services</td>
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<td>CIT 218</td>
<td>UNIX/Linux Net Infrastructure</td>
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<tr>
<td>CIT 219</td>
<td>Internet Protocols</td>
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<td>CIT 260</td>
<td>Network Hardware Installation and Troubleshooting</td>
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<td>CIT 263</td>
<td>Advanced Microsoft Topics</td>
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<td>Computer Forensics</td>
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<td>Windows OS Security</td>
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<tr>
<td>CIT 286</td>
<td>UNIX/Linux OS Security</td>
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<td>CIT 287</td>
<td>Cisco OS Security</td>
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**Approved Level I Programming Language Courses**

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<tr>
<td>CIT 141</td>
<td>PHP I</td>
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<tr>
<td>CIT 142</td>
<td>C+++I</td>
<td>3</td>
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<tr>
<td>CIT 143</td>
<td>C# I</td>
<td>3</td>
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<tr>
<td>CIT 144</td>
<td>Python I</td>
<td>3</td>
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<tr>
<td>CIT 145</td>
<td>Perl I</td>
<td>3</td>
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<tr>
<td>CIT 146</td>
<td>Swift I</td>
<td>3</td>
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<tr>
<td>CIT 147</td>
<td>Programming I: Language</td>
<td>3</td>
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<tr>
<td>CIT 148</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>
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<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>3</td>
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<tr>
<td>CIT 237</td>
<td>iOS Programming</td>
<td>3</td>
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<tr>
<td>CIT 238</td>
<td>Android Programming</td>
<td>3</td>
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<tr>
<td>CIT 241</td>
<td>PHP II</td>
<td>3</td>
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<tr>
<td>CIT 242</td>
<td>C++ II</td>
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<td>CIT 243</td>
<td>C# II</td>
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<tr>
<td>CIT 244</td>
<td>Python II</td>
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<tr>
<td>CIT 247</td>
<td>Programming II: Language</td>
<td>3</td>
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<tr>
<td>CIT 248</td>
<td>Visual Basic II</td>
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<tr>
<td>CIT 249</td>
<td>Java I</td>
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<td>CIT 271</td>
<td>SQL II</td>
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**Approved Level II Programming Language Courses**

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<tr>
<td>CIT 277</td>
<td>Programming III: Language</td>
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<td>CIT 278</td>
<td>Visual Basic III</td>
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<td>CIT 284</td>
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**Approved Level III Programming Language Courses**

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<td>PHP II</td>
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<td>CIT 244</td>
<td>Python II</td>
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<td>CIT 248</td>
<td>Visual Basic II</td>
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<tr>
<td>CIT 249</td>
<td>Java I</td>
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### Approved Social Media Courses*

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
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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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### Approved Video Game Design Electives*

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<tr>
<td>CIT 238</td>
<td>Android Programming</td>
<td>3</td>
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### Approved CIT Technical Courses*

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<td>Additional CIT Course(s)</td>
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*Or other courses approved by Computer & Information Technologies Program Coordinator

Note: Students may not use one course to fulfill multiple requirements.

Students may choose CIT 290 or COE 199 for a maximum of 3 credit hours.

### Certificates

#### Computer Technician - 1101013289

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

<table>
<thead>
<tr>
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<td>Introduction to Computing</td>
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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 180</td>
<td>Security Fundamentals</td>
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#### CIT Fundamentals - 1101013309

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

<table>
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<tr>
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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computing</td>
<td>3</td>
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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 120</td>
<td>Computing Thinking</td>
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<td>CIT 170</td>
<td>Database Design Fundamentals</td>
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#### Productivity Software Specialist - 1101013299

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

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<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
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<td>CIT 234</td>
<td>Advanced Productivity Software</td>
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<td>CIT 236</td>
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#### Computer Tech Basic - 1101013319

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

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#### Computer Support Technician - 1101013329

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

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<td>CIT 111</td>
<td>Computer Hardware and Software</td>
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<td>CIT 232</td>
<td>Help Desk Operations</td>
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<td>Advanced Productivity Software</td>
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#### Information Security Specialist - 1101013339

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

<table>
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<tr>
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<tr>
<td>CIT 182</td>
<td>Security Fundamentals</td>
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<td>CIT 184</td>
<td>Attacks and Exploits</td>
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#### Microsoft Network Administrator - 1101013349

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

<table>
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<tbody>
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<td>Microsoft Client Configuration</td>
<td>3</td>
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<tr>
<td>CIT 214</td>
<td>Microsoft Server Configuration</td>
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<tr>
<td>CIT 215</td>
<td>Microsoft Server Administration</td>
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<tr>
<td>CIT 216</td>
<td>Microsoft Server Advanced Services</td>
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#### CISCO Networking Associate - 1101013359

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

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<td>CIT 167</td>
<td>Routing and Switching Essentials</td>
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<td>CIT 209</td>
<td>Scaling Networks</td>
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#### Network Technologies Specialist - 1101013369

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

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<td>Internet Protocols</td>
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<td>Network Security</td>
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<td>CIT 204</td>
<td>VMWare Optimize and Scale</td>
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<td>CIT 205</td>
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<tr>
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<td>Web Site Design and Production</td>
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<td>CIT 234</td>
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A+ Prep - 1101013529

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Net+ Prep - 1101013539

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Security+ Prep - 1101013549

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Microsoft Enterprise Administrator - 1101013149

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Social Media Specialist – 1101013469

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Digital Forensics – 1101013459

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Mobile Apps Development – 1101013559

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Informatics Advanced – 1101013509

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Informatics Generalist – 1101013499  
(Offered at)

CIT 105 Introduction to Computers ..................................................3  
CIT 120 Computational Thinking ..................................................3  
CIT 130 Productivity Software ......................................................3  
CIT 170 Database Design Fundamentals OR ..................................3  
INF 282 Introduction to Databases .................................................3  
IFM 215 Information Systems Analysis .........................................3  
Total: 15

Informatics Programming – 1101013489  
(Offered at BLC, BSC, HEC, 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 AND .................................................................(3)  
CS 115 Intro to Computer Programming AND ..................................(3)  
CS 215 Intro Program Design, Instruction, and Problem Solving (4)  
CIT 142 C++ I AND .................................................................(3)  
CIT 242 C++ II AND .................................................................(3)  
CIT 148 Visual Basic I AND .......................................................(3)  
CIT 248 Visual Basic II AND .......................................................(3)  
CIT 143 C# I AND ...................................................................(3)  
CIT 243 C# II AND ...................................................................(3)  
Total: 12-13

Video Game Design - 1101013519  
(Offered at)

CIT 105 Introduction to Computing ..................................................3  
CIT 120 Computational Thinking ..................................................3  
CIT/IMD 124 Introduction to Game Development ......................3  
CIT/IMD 221 Computer Graphics .................................................3  
CIT/IMD 222 3D Modeling for Video Games .................................3  
CIT/IMD 223 Computer Animation .................................................3  
CIT/IMD 273 Game Production ......................................................3  
CIT/IMD 274 Seminar in Game Development .................................3  
Video Game Design Elective .........................................................3  
Total: 30

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, HPC, HZC, JFC, MYC, OWC, SKY, WKC)

General Education:

ENG 101 Writing I .................................................................3  
MAT 116 Technical Mathematics .................................................3  
MAT 126 Technical Algebra and Trigonometry or Higher .................(3)  
Heritage/Humanities ...............................................................3  
Natural Sciences ....................................................................3  
Social/Behavioral Sciences ....................................................3  
Subtotal: 15

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 Advanced Machining I OR .........................................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 ..................................................6  
CMM 220 Advanced Industrial Machining I AND .......................4  
CMM 222 Advanced Industrial Machining II OR ..........................2  
CMM 224 Advanced Industrial Machining ....................................6  
CMM 2301 Intro to Conversational Programming AND .................3  
CMM 2302 Conversational Editing and Subroutines OR ...............3  
CMM 230 Conversational Programming OR ..................................6  
CMM 234 CNC Machines and Coding Practices .........................6  
CMM 2401 Intro to 3-D Code Sequencing and Setup Practices ..........3  
CMM 2402 Advanced 3-D Code Sequencing and Macro Systems OR 3  
CMM 240 Intro to 3-D Programming OR ....................................6  
CMM 244 Advanced Programming/Setup Practices ....................6  
BRX 110 Basic Blueprint Reading for Machinist AND ...................2  
BRX 210 Mechanical Blueprint Reading for Machinist OR ...........2  
BRX 112 Blueprint Reading for Machinist ....................................4  
Subtotal: 48-51

Total Credits: 64-67

*Diploma

CNC Machinist - 4805034069  
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, 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

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**Electives (Technical or General Education)** (Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

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**Subtotal**: 55-58

**Total Credits**: 55-58

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**Subtotal**: 36-39

**Total Credits**: 43-46

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**Certificates**

**Exploratory Machining I - 4805033199**

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

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**Subtotal**: 11-12

**Total Credits**: 17-19

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**Machine Tool Operator I - 4805033109**

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

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**Subtotal**: 6-8

**Total Credits**: 25-30

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**Machine Tool Operator II - 4805033119**

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

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**Subtotal**: 6-8

**Total Credits**: 17-19

---

**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)** (6)

**Subtotal**: 12
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**

**General Education Requirements:**
- Written Communication ............................................ 3
- Business Mathematics OR
- Higher level Quantitative Reasoning course ..................... 3
- Social/Behavioral Sciences .......................................... 3
- Heritage/Humanities ............................................... 3
- Natural Sciences ..................................................... 3
- Oral Communications ............................................. 3
- **Subtotal** ......................................................... 18

**Technical Requirements:**
- Digital Literacy or demonstrated competency ............... 0-3
- **Subtotal** ......................................................... 18
- **Total** .............................................................. 42-47

**Construction Technology - 4605033129**

**CMM 110 Fundamentals of Machine Tools A**

**CMM 112 Fundamentals of Machine Tools B**

**CMM 114 Fundamentals of Machine Tools C**

**CMM 118 Metrology/Control Charts**

**CMM 130 Manual Programming AND**

**CMM 132 CAD/CAM/CNC OR**

**CMM 134 Manual Programming CAD/CAM/CNC OR**

**CMM 138 Intro to Programming & CNC Machines**

**CMM 2301 Intro to Conversational Programming AND**

**CMM 2302 Conversational Editing and Subroutines OR**

**CMM 230 Conversational Programming OR**

**CMM 234 CNC Machines and Coding Practices**

**BRX 110 Basic Blueprint Reading for Machinist OR**

**BRX 112 Blueprint Reading for Machinist**

**Computer/Digital Literacy* OR ........................................ 0-3
**MAT 116 Technical Mathematics or ............................... 3
**MAT 126 Technical Algebra and Trigonometry or Higher ...... (3)

**Total Credits** 25-30

**Tool & Die Apprentice - 4605033130**

**CMM 150 Shop Theory OR ............................................. 2
**CMM 110 Fundamentals of Machine Tools A .......................................................... (3)
**CMM 118 Metrology/Control Charts ................................................................. 2
**CMM 151 Machinery’s Handbook/Metallurgy OR ............................... 3
**CMM 112 Fundamentals of Machine Tools B ............................................ (4)
**CMM 152 Jigs, Fixtures and Gaging OR .................................................... 3
**CMM 120 Applied Machining I ................................................................. (3)
**CMM 153 Mold Theory ................................................................. 3
**CMM 154 Die Theory ................................................................. 3
**CMM 130 Manual Programming ....................................................... 3
**CMM 132 CAD/CAM/CNC OR .................................................. 3
**BRX 110 Basic Blueprint Reading for Machinist OR ........................................ 2
**BRX 210 Mechanical Blueprint Reading .................................................... 2
**MAT 116 Technical Mathematics .............................................................. 3
**WLD 151 Basic Welding A OR ..................................................... 2
**Computer/Digital Literacy* OR ........................................... 0-3
**IEX 295 Special Problems III ...................................................... (3)

**Total Credits** 29-34

**CNC Machining & Waterjet Technology - 4605033189**

**CMM 138 Intro to Programming and CNC Machines**

**CMM 234 CNC Machines & Coding Practices**

**CMM 244 Advance Programming/Setup Practices**

**Total Credits** 18

* 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.
Diploma

Construction Carpenter - 4602014019
(Offered at BLC, BSC, ELC, JFC, MYC, SEC, SMC)

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

Note: WPP 200 or EFM 100 may be taken for 3 credit hours of Social/Behavioral Sciences to meet the Diploma General Education requirements.

Technical Requirements:

Digital Literacy course OR demonstrated competency ............... 0-3
BRX 220 Blueprint Reading for Construction .................................................. 3
CAR 136 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

NOTE: Digital Literacy must be demonstrated either by competency exam or by completing a digital literacy course.

*Technical Electives: (This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Carpentry instructor.)

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

Note: WPP 200 or EFM 100 may be taken for 3 credit hours of Social/Behavioral Sciences to meet the Diploma General Education requirements.

Technical Requirements:

Digital Literacy course OR demonstrated competency ............... 0-3
INF 105 Introduction to Painting ................................................................. 2
INF 111 Advanced Painting ................................................................. 2
INF 115 Introduction to Wall covering ...................................................... 2
INF 121 Advanced Wall Covering ............................................................. 2
INF 125 Introduction to Drywall ................................................................. 2
INF 131 Advanced Drywall ................................................................. 2
INF 205 Introduction to Acoustical Carpentry ........................................... 3
INF 211 Advanced Acoustical Carpentry ................................................. 2
INF 220 Customer Relations ................................................................. 2
INF 298 Practicum (or) ................................................................. 2
CAR 299 Cooperative Education in Construction ........................................... (2-4)

Subtotal 24-29

Total Credits 30-35

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

Certificates

Carpenter Helper - 4602013109
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

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

*Suggested Technical Electives:
(This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Construction Technology Program Coordinator.)

BRX 120 Basic Blueprint Reading ................................................................. (3)
ISX 100 Industrial Safety ................................................................. (3)
CAR 140 Construction Surveying and Foundation Systems ................................ (3)
CAR 141 Construction Surveying and Foundation Systems-Lab ...................... (2)
CAR 150 Construction Formwork .............................................................. (3)
CAR 151 Construction Formwork-Lab ......................................................... (2)
CAR 190 Light Frame Construction I-Floors and Walls-Lab ............................ (3)
CAR 191 Light Frame Construction I-Floors and Walls-Lab ............................ (2)
CAR 196 Light Frame Construction II-Ceilings and Roofs ................................ (3)
CAR 197 Light Frame Construction II-Ceilings and Roofs-Lab ........................... (2)
CAR 198 Special Topics in Construction ...................................................... (1-6)
CAR 200 Light Frame Construction III-Exterior and Interior Finish ................ (3)
CAR 201 Light Frame Construction III-Exterior and Interior Finish-Lab ............... (2)
CAR 240 Light Frame Construction IV-Cabinetry and Trim Carpentry Techniques ............................................. (2)
CAR 241 Light Frame Construction IV-Cabinetry and Trim Carpentry Techniques (Lab) .................................................. (2)
DLC 100 Digital Literacy ........................................................................ (3)

*Suggested General Education Electives:

TEC 200 Technical Communications .......................................................... (3)
COM 181 Basic Public Speaking ................................................................. (3)
COM 252 Intro to Interpersonal Communications ........................................ (3)
MAT 105 Business Mathematics ............................................................. (3)
MAT 110 Applied Mathematics ................................................................. (3)
MAT 116 Technical Mathematics ............................................................... (3)
PHX 150 Introductory Physics ................................................................. (3)
EFM 100 Personal Financial Management ................................................ (3)
WPP 200 Workplace Principles ............................................................... (3)

Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.
### Residential Carpenter - 4602013059
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

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*Suggested Technical Electives:

(This list is not all inclusive. Other courses (technical or general education) may be taken as approved by Construction Technology Program Coordinator.)

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### Residential Roofer - 4602013069
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

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### Residential Site Layout Assistant - 4602013079
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

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### Rough Carpenter - 4602013089
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

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### Basic Carpenter - 4602013099
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

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<td>CAR 140</td>
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### Acoustical Carpenter - 4602013099
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

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### Dry Waller - 4602013099
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

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### Painter, Interior Finish - 4602013049
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

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<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>INF 105</td>
<td>3</td>
</tr>
<tr>
<td>INF 111</td>
<td>2</td>
</tr>
<tr>
<td>Electives: *Technical Electives</td>
<td>2</td>
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<tr>
<td>Total Credits</td>
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### Painter, Paper Hanger - 46020130129
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INF 105</td>
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</tr>
<tr>
<td>INF 111</td>
<td>2</td>
</tr>
<tr>
<td>INF 115</td>
<td>2</td>
</tr>
<tr>
<td>INF 121</td>
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<tr>
<td>Total Credits</td>
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### Green Building Technology - 4602013159
(Offered at HZC, JFC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>BRX 220</td>
<td>3</td>
</tr>
<tr>
<td>CAR 270</td>
<td>3</td>
</tr>
<tr>
<td>CAR 126</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>1</td>
</tr>
<tr>
<td>Electives: *Suggested General Education Electives</td>
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<tr>
<td>Total Credits</td>
<td>20</td>
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</table>
**Suggested Technical Electives:**

Select a minimum of 10 credit hours. (This list is not all inclusive. Other courses may be taken as approved by Construction Technology Instructor.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
<td>3</td>
</tr>
<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I – Floors and Walls</td>
<td>3</td>
</tr>
<tr>
<td>CAR 191</td>
<td>Light Frame Construction I – Floors and Walls (Lab)</td>
<td>2</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II – Ceilings and Roofs</td>
<td>3</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Construction II – Ceilings and Roofs (Lab)</td>
<td>2</td>
</tr>
<tr>
<td>CAR 200</td>
<td>Light Frame Construction III-Exterior and Interior Finish</td>
<td>3</td>
</tr>
<tr>
<td>CAR 201</td>
<td>Light Frame Construction III-Exterior and Interior Finish-Lab</td>
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**NCCER Skills Standard Level I – 4602013169**

*(Offered at HZC, SEC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction OR</td>
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<tr>
<td>BRX 2201</td>
<td>Basic Construction Prints AND</td>
<td>(1)</td>
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<tr>
<td>BRX 2202</td>
<td>Construction Blueprints</td>
<td>(2)</td>
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<tr>
<td>CAR 126</td>
<td>Introduction to Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Introduction to Construction-Lab</td>
<td>1</td>
</tr>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I – Floors and Walls</td>
<td>3</td>
</tr>
<tr>
<td>CAR 191</td>
<td>Light Frame Construction I – Floors and Walls (Lab)</td>
<td>2</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II – Ceilings and Roofs</td>
<td>3</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Construction II – Ceilings and Roofs (Lab)</td>
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<tr>
<td>CAR 2001</td>
<td>Light Frame Construction III – Interior AND</td>
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<tr>
<td>CAR 2011</td>
<td>Light Frame Construction III – Lab Interior OR</td>
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<tr>
<td>CAR 2002</td>
<td>Light Frame Construction III – Exterior AND</td>
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<tr>
<td>CAR 2012</td>
<td>Light Frame Construction III – Lab Exterior OR</td>
<td>(1)</td>
</tr>
<tr>
<td>CAR 200</td>
<td>Light Frame Construction III AND</td>
<td>(3)</td>
</tr>
<tr>
<td>CAR 201</td>
<td>Light Frame Construction III-Laboratory</td>
<td>(2)</td>
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<tr>
<td>CAR 299</td>
<td>Cooperative Education in Construction</td>
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<tr>
<td>ISX 100</td>
<td>Industrial Safety OR Approved Safety course by Program Coordinator</td>
<td>3</td>
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</tbody>
</table>

**Total Credits 24-29**

---

**Cosmetology**

Knowledge of the theories of hair, skin, and nail care is coupled with practice of the various techniques used in salons.

Any person enrolling in a cosmetology program shall meet KCTCS admission requirements and complete an application for enrollment provided by the Board of Hairdressers and Cosmetologists. As required by the Board of Hairdressers and Cosmetologists, the applicant shall furnish proof that he or she has earned a high diploma or its equivalent.

Documentation of digital literacy as defined by KCTCS is required prior to graduation for the diploma credential.

Progression in the Cosmetology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

After successful completion of the prescribed 1800 hours of instruction and the six-month apprenticeship, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed cosmetologists.

After successful completion of the prescribed 1000 hours of instruction, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed nail technicians.

After successful completion of the prescribed 600 hours of instruction, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed estheticians.

---

**Diploma**

**Cosmetologist - 1204014019**

*(Offered at ASC, BLC, BSC, GTW, HZC, JFC, MYC, SMC, WKC)*

**General Education:**

<table>
<thead>
<tr>
<th>Area</th>
<th>Courses</th>
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<tbody>
<tr>
<td>Area 1</td>
<td>Written Communication, Oral Communications, or Humanities/Heritage</td>
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<tr>
<td>Area 2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
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**Subtotal 6**

**Total Credits 60**

**Technical Courses:**

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<tr>
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<th>Course Title</th>
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<tr>
<td>COS 116</td>
<td>Cosmetology II</td>
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</tr>
<tr>
<td>COS 218</td>
<td>Cosmetology III</td>
<td>14</td>
</tr>
<tr>
<td>COS 220</td>
<td>Cosmetology IV</td>
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**Subtotal 54**

**Electives:**

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COS 135</td>
<td>Individual Requirements I</td>
<td>1-8</td>
</tr>
<tr>
<td>COS 235</td>
<td>Individual Requirements II</td>
<td>1-8</td>
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</table>

**Certificates**

**Cosmetologist - 1204013039**

*(Offered at ASC, BLC, BSC, GTW, HZC, JFC, MYC, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COS 114</td>
<td>Cosmetology I</td>
<td>14</td>
</tr>
<tr>
<td>COS 116</td>
<td>Cosmetology II</td>
<td>14</td>
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<tr>
<td>COS 218</td>
<td>Cosmetology III</td>
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<td>Cosmetology IV</td>
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**Total Credits 54**

**Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COS 135</td>
<td>Individual Requirements I</td>
<td>1-8</td>
</tr>
<tr>
<td>COS 235</td>
<td>Individual Requirements II</td>
<td>1-8</td>
</tr>
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</table>

**Apprentice Cosmetology Instructor - 1204013019**

*(Offered at ASC, BLC, HZC, JFC, MYC, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>COS 210</td>
<td>Student Teaching I</td>
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<tr>
<td>COS 212</td>
<td>Student Teaching II</td>
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<tr>
<td>COS 214</td>
<td>Student Teaching III</td>
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**Total Credits 39**

**OR**

<table>
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<tr>
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<tr>
<td>COS 216</td>
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<tr>
<td>COS 217</td>
<td>Teaching II</td>
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**Total Credits 40**

**Electives:**

<table>
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<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>COS 135</td>
<td>Individual Requirements I</td>
<td>1-8</td>
</tr>
<tr>
<td>COS 235</td>
<td>Individual Requirements II</td>
<td>1-8</td>
</tr>
</tbody>
</table>

**Nail Technician - 1204013029**

*(Offered at ASC, BLC, HZC, JFC, MYC, SMC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COS 150</td>
<td>Basic Nail Tech</td>
<td>13</td>
</tr>
<tr>
<td>COS 152</td>
<td>Applied Nail Technology</td>
<td>13</td>
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**Total Credits 26**
Electives:
- COS 135 Individual Requirements I .................................... 1-8
- COS 235 Individual Requirements II .................................. 1-8

**Esthetician - 1204093019**
*(Offered at BLC)*
- COS 105 Esthetician I ................................................... 14
- COS 205 Esthetician II .................................................. 14
- COS 275 Esthetician III ................................................. 13

**Total Credits** 41

**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 with a foundation of theory, principles, and techniques employed by the criminal justice agencies. Graduates who complete an AAS Criminal Justice Degree may seek job opportunities on the federal, state, county, municipal levels of government, and private sectors of the criminal justice field.

Progression in the Criminal Justice Program is contingent upon the achievement of a grade of “C” or better in each CRJ course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale). The grading scale for criminal justice courses with a Pass/Fail scale, the grade of “P or Pass” meets the requirement for the Criminal Justice Program.

Criminal Justice Program Certificates are embedded in the Criminal Justice AAS Degree. The certificates are not stand alone certificates; therefore a student cannot receive financial aid for just a certificate. The student must be a Criminal Justice AAS Degree seeker in order to obtain program certificates.

Criminal background checks are currently not required for the Criminal Justice AAS Program; however students should understand that certain disqualifiers may hinder employment in the field of criminal justice. Such disqualifiers include, but are not limited to the following: criminal convictions, substance abuse, offensive social media activities, excessive traffic related offenses, and visible tattoos and body piercings. Students seeking employment in the criminal justice field or related field should research the requirements and disqualifiers of their desired areas or agencies of employment.

**Associate in Applied Science**

**Criminal Justice - 4301037039**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)*

**Available Completely Online**

**General Education:**
- ENG 101 Writing I .......................................................... 3
- ENG 102 Writing II ......................................................... 3
- COM 181 Basic Public Speaking OR ......................... 3
- COM 252 Introduction to Interpersonal Communication .............. 3
- Quantitative Reasoning Course ....................................... 3
- Natural Sciences Course .................................................. 3
- Heritage/Humanities Course ......................................... 3
- POL 101 American Government OR ............................... 3

**POL 255** State Government ............................................... 1
**PSY 110** General Psychology ............................................. 3
**SOC 101** Introduction to Sociology .................................... 3
**Elective Courses** (Can be Technical or General Education Elective courses) ............................................. 6

**Subtotal:** 33

- Digital Literacy OR General Education Elective ................. 3
- (Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course; if student does not have to take a digital literacy class then the student must choose a general education elective for the completion of the three (3) hours).

**Subtotal:** 3

**Technical Core Requirements:**
- CRJ 100 Introduction to Criminal Justice ......................... 3
- CRJ 202 Issues and Ethics in Criminal Justice ..................... 3
- CRJ 204 Criminal Investigations .................................... 3
- CRJ 216 Criminal Law .................................................. 3
- CRJ 217 Criminal Procedures ......................................... 3
- CRJ 295 Criminal Justice Capstone ................................... 1

**Subtotal:** 16

**Criminal Justice Track - 430103701**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)*

**Track Electives: (Choose 9 credit hours from the following courses)**
- CRJ 102 Introduction to Corrections .................................... 3
- CRJ 108 Advanced Firearms and Less Than Lethal Weapons ........ 4
- CRJ 110 Principles of Asset Protection .................................. 3
- CRJ 201 Introduction to Criminalistics .................................. 3
- CRJ 203 Community Corrections/Probation & Parole ................. 3
- CRJ 208 Delinquency and the Juvenile Justice System ............... 3
- CRJ 210 Physical Security Technology and Systems ................. 3
- CRJ 211 Liability and Legal Issues ..................................... 3
- CRJ 215 Introduction to Law Enforcement ............................ 3
- CRJ 218 Police Supervision ............................................. 3
- CRJ 219 Police Recruit Defensive Tactics .................................. 4
- CRJ 220 Introduction to Computer Forensics .......................... 3
- CRJ 222 Prison and Jail Administration .................................. 3
- CRJ 224 Basic Traffic Collision Investigation ......................... 4
- CRJ 225 Driving and Traffic Enforcement for Law Enforcement .......... 4
- CRJ 230 Criminal Justice Courtroom Procedures ....................... 3
- CRJ 231 Legal Aspects of Corrections ................................... 3
- CRJ 240 Introduction to Corporate and Industrial Security ............ 3
- CRJ 245 Introduction to Business and Financial Fraud ............... 3
- CRJ 277 Introduction to Criminology .................................... 3
- CRJ 279 Terrorism and Political Violence ............................... 3
- CRJ 290 Internship in Criminal Justice .................................. 3
- CRJ 299 Selected Topics in Criminal Justice ......................... 1-3

**Subtotal:** 9

- Technical Elective ........................................................... 0-3

**Subtotal:** 0-3

**Total Credits** 61-64

**Law Enforcement Track - 430103702**
*(Offered at ASC, BLC, 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

Corrections Track - 430103703
(Offered at ASC, BLC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Required:
CRJ 102 Introduction to Corrections ........................................ 3
Subtotal 3

Track Electives: (Choose 6 credit hours from the following courses)

CRJ 203 Community Corrections/Probation & Parole .................... 3
CRJ 208 Delinquency and the Juvenile Justice System .................. 3
CRJ 220 Introduction to Computer Forensics .............................. 3
CRJ 222 Prison and Jail Administration ................................... 3
CRJ 231 Legal Aspects of Corrections ..................................... 3
CRJ 277 Introduction to Criminology ....................................... 3
CRJ 290 Internship in Criminal Justice .................................... 3
CRJ 299 Selected Topics in Criminal Justice ................................ 1-3
Subtotal 9
Technical Elective.......................................................... 0-3
Subtotal 0-3
Total Credits 61-64

Security and Loss Prevention Track - 430103704
(Offered at ASC, BLC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
Available Completely Online

Required courses:
CRJ 110 Principles of Asset Protection ...................................... 3
Subtotal 3

Track Electives: (Choose 6 credit hours from the following courses)

CRJ 210 Physical Security Technology and Systems ..................... 3
CRJ 211 Liability and Legal Issues .......................................... 3
CRJ 220 Introduction to Computer Forensics .............................. 3
CRJ 240 Introduction to Corporate and Industrial Security .......... 3
CRJ 245 Introduction to Business and Financial Fraud ............... 3
CRJ 290 Internship in Criminal Justice .................................... 3
CRJ 299 Selected Topics in Criminal Justice ................................ 1-3
Subtotal 9
Technical Elective.......................................................... 0-3
Subtotal 0-3
Total Credits 61-64

Certificates

Computer Forensics - 4301033019
(Offered ASC, BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SMC, WKC)

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 ....................................... 3
CTT 160 Introduction to Networking Concepts OR ......................... (4)
CTT 161 Introduction to Networks .................................................. 4
CIT 180 Security Fundamentals .................................................. 3
Total: 23

Criminal Justice Core – 4301033029
(Offered ASC, BLC, BSC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

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

Law Enforcement – 4301033049
(Offered ASC, BLC, BSC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

CRJ 201 Introduction to Criminalistics OR .............................................. 3
CRJ 204 Criminal Investigations ......................................................... (3)
CRJ 208 Delinquency and the Juvenile Justice System .................. 3
CRJ 211 Liability and Legal Issues .................................................... 3
CRJ 215 Introduction to Law Enforcement ..................................... 3
CRJ 218 Police Supervision .................................................. 3
Total: 15

Security and Loss Prevention – 4301033059
(Offered ASC, BLC, BSC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

CRJ 110 Principles of Asset Protection ........................................ 3
CRJ 210 Physical Security Technology & Systems ....................... 3
CRJ 211 Liability and Legal Issues .................................................... 3
CRJ 220 Introduction to Computer Forensics .............................. 3
CRJ 240 Introduction to Corporate Security ............................... 3
Total: 15

Advanced Law Enforcement – 4301033069
(Offered BSC, BLC, MDC, MYC, SEC, SMC)

CRJ 107 Introduction to Firearms .................................................... 1
CRJ 108 Advanced Firearms and Less Than Lethal Weapons .......... 4
CRJ 204 Criminal Investigations ......................................................... (3)
CRJ 215 Introduction to Law Enforcement ..................................... 3
CRJ 219 Police Recruit Defensive Tactics ...................................... 4
CRJ 224 Basic Traffic Collision Investigation ............................. 4
CIT 180 Security Fundamentals .................................................. 3
Total: 23

NOTE: CRJ 107 Introduction to Firearms I may be used as a technical elective only.
Course will not substitute for track elective.
The KCTCS Culinary Arts program is designed to prepare students for careers in the Culinary Arts, Food and Beverage Management, Restaurant Management, Catering, Institutional Food Service, and as Professional Chefs. Course work covers a broad spectrum: the preparation of basic and specialized foods, catering and special event planning, international cuisine, baking and pastry arts, nutrition, sanitation, management techniques and functions, cost control, purchasing and culinary fundamentals. Students work in commercial kitchen/laboratory and dining room through the course of study. The program uses the teaching philosophy of the American Culinary Federation, the Academy of Chefs, the National Restaurant Association Education Foundation, and the American Personal Chef Association. The program competencies are those of the American Culinary Federation.

Progression in the Culinary Arts program is contingent upon achievement of a grade of "C" or better in each CUL and NFS courses.

**Associate in Applied Science**

**Culinary Arts - 1205037029**

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

**General Education**

- Quantitative Reasoning ............................................. 3
- Natural Sciences .................................................... 3
- Social/Behavioral Sciences ........................................ 3
- Heritage/Humanities .................................................. 3
- Written Communication ............................................ 3
- Oral Communication ................................................. 3
- Required General Education Hours ................................ 18

**Culinary Arts Technical Core**

- CUL 100 Introduction to Culinary Arts OR ................. 2
- CUL 105 Applied Introduction to Culinary Arts OR ...... (2)
- CUL 250 Gastronomy .................................................... 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 OR ...................... (4)
- Digital Literacy* .................................................. 0-3
- Required Technical Core Hours ..................................... 32-36

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

**Culinary Arts Degree Track - 120503702**

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

**General Education** .................................................. 18
- Technical Core .................................................... 32-36
- CUL 220 Advanced Baking and Pastry Arts ............... 4
- CUL 260 International and Classical Cuisine ............. 4
- CUL 298 Culinary Arts Practicum Experience OR ....... (2-3)
- Total Hours .......................................................... 60-65

**Food and Beverage Management Degree Track - 120503703**

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

**General Education** .................................................. 18
- 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)
- Total Hours .......................................................... 61-66

**Catering and Personal Chef Degree Track - 120503701**

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

**General Education** .................................................. 18
- Technical Core .................................................... 32-36
- CUL 220 Advanced Baking and Pastry Arts ............... 4
- BAS 170 Entrepreneurship AND ....................... (3)
- BAS 295 Doing Business as a Personal Chef OR ...... (3)
- BAS 160 Introduction to Business AND .......... (3)
- BAS 283 Principles of Management ............... (3)
- CUL 298 Culinary Arts Practicum Experience OR .... 2-3
- CUL 299 Culinary Arts Cooperative Education Experience ...... (2-3)
- Total Hours .......................................................... 62-67

**Diplomas**

**Culinary Arts - 1205034029**

(Offered at ASC, BSC, ELC, MYC, SKY, SMC, WKC)

**General Education***

- Area 1 = Written/Oral Communications, Humanities, or Heritage .... 3
- Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ............. 3
- Subtotal .................................................. 6

* If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:
- WPP 200 Workplace Principles (Area 2) OR .......... 3
- EFM 100 Personal Financial Management (Area 2) .......... (3)
- TEC 200 Technical Communications (Area 1) .......... 3

**Technical or Support Courses**

- Technical Core .................................................... 32-36
- CUL 220 Advanced Baking and Pastry Arts ............... 4
- CUL 260 International and Classical Cuisine ............. 4
- CUL 298 Culinary Arts Practicum Experience OR ....... 2-3
- CUL 299 Culinary Arts Cooperative Education Experience ...... (2-3)
- Technical/Support Total .................................................. 42-47

**Total Hours for Culinary Arts Diploma** .................................. 48-53

**Food and Beverage Management - 1205034039**

(Offered at ASC, 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
* If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPP 200</td>
<td>Workplace Principles (Area 2) OR</td>
<td>3</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management (Area 2)</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications (Area 1)</td>
<td>3</td>
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</tbody>
</table>

Technical or Support Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BAS 170</td>
<td>Entrepreneurship OR</td>
<td>3</td>
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<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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</table>

Technical/Support Total 44-49

Total Hours 49-54

Catering and Personal Chef - 1205034019

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

General Education*

| Area 1 = Written/Oral Communications, Humanities, or Heritage | 3 |
| Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning | 3 |

Subtotal 6

* If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:

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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
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<td>BAS 170</td>
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<td>BAS 283</td>
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<tr>
<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
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<tr>
<td>CUL 299</td>
<td>Culinary Arts Cooperative Education Experience</td>
<td>(2-3)</td>
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Technical Support Total 44-49

Total Hours 50-55

Certificates

Fundamentals of Culinary Arts - 1205033029

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>CUL 100</td>
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</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>
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<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>
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Total Hours 16

Catering - 1205033059

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

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<tr>
<td>CUL 105</td>
<td>Applied Introduction to Culinary Arts</td>
<td>(2)</td>
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<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 215</td>
<td>Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>CUL 290</td>
<td>Front of the House/Catering</td>
<td>4</td>
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Total Hours 16

Advanced Catering - 1205030379

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

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<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CUL 211</td>
<td>Basic Food Production</td>
<td>4</td>
</tr>
<tr>
<td>CUL 220</td>
<td>Advanced Baking and Pastry Arts</td>
<td>4</td>
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<tr>
<td>CUL 240</td>
<td>Meats, Seafood, Poultry</td>
<td>4</td>
</tr>
<tr>
<td>CUL 260</td>
<td>International and Classical Cuisine</td>
<td>4</td>
</tr>
<tr>
<td>CUL 270</td>
<td>Human Relations Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business AND</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>(3)</td>
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Total Hours 32-36

Culinary Arts - 1205033049

(Offered at ASC, ELC, MYC, OWC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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<tbody>
<tr>
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<td>Introduction to Culinary Arts</td>
<td>2</td>
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<tr>
<td>CUL 105</td>
<td>Applied Fundamentals of the Culinary Arts</td>
<td>2</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 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>BAS 160</td>
<td>Introduction to Business AND</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Marketing</td>
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</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
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<td>3</td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
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Total Hours 41-44

Advanced Culinary Arts - 1205033069

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

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<tbody>
<tr>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
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Total Hours 42-47

Food and Beverage Management - 1205033039

(Offered at ASC, ELC, MYC, OWC, SKY, SMC, WKC)

<table>
<thead>
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<tr>
<td>CUL 100</td>
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<tr>
<td>CUL 105</td>
<td>Applied Fundamentals of the Culinary Arts</td>
<td>2</td>
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<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 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>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business AND</td>
<td>3</td>
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<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
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</table>

Total Hours 31-34

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

Advanced Food and Beverage Management - 1205033089

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

<table>
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<th>Course</th>
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<th>Hours</th>
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</tr>
<tr>
<td>CUL 105</td>
<td>Applied Fundamentals of the Culinary Arts</td>
<td>2</td>
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<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>
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<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness</td>
<td>(3)</td>
</tr>
<tr>
<td>CUL 240</td>
<td>Meats, Seafood, and Poultry</td>
<td>4</td>
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<tr>
<td>CUL 270</td>
<td>Human Relations Management</td>
<td>3</td>
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<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>CUL 285</td>
<td>Front of the House OR</td>
<td>(3)</td>
</tr>
<tr>
<td>CUL 290</td>
<td>Front of the House/Catering</td>
<td>4</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business AND</td>
<td>3</td>
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<tr>
<td>BAS 170</td>
<td>Entrepreneurship OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
</tr>
<tr>
<td>CUL 299</td>
<td>Culinary Arts Cooperative Education Experience</td>
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Total Hours 43-45
### Dental Assisting/Dental Hygiene Integrated Program

The Dental Assisting/Dental Hygiene Integrated Program prepares students to function as dental hygienists on a dental team under the general supervision of a dentist. The curriculum includes courses in general education and in dental hygiene as required by the Commission on Dental Accreditation. Students may apply scientific knowledge in the performance of dental hygiene procedures. Students enrolled in the Dental Hygiene program must achieve a minimum grade of “C” in each Dental Hygiene and approved science course. Documentation of computer literacy as defined by KCTCS and Cardiopulmonary resuscitation (CPR) are required prior to admission to DHP courses.

### General Education Core

<table>
<thead>
<tr>
<th>Course</th>
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<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 I*</td>
<td>4</td>
</tr>
<tr>
<td>BIO 226</td>
<td>Principles of Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
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#### Subtotal Credits

29

### Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DHP 120</td>
<td>Dental Hygiene I**</td>
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</tr>
<tr>
<td>DHP 121</td>
<td>Oral Biology I</td>
<td>3</td>
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<tr>
<td>DHP 122</td>
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<td>DHP 130</td>
<td>Dental Hygiene II</td>
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<td>DHP 131</td>
<td>Oral Biology II</td>
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<td>DHP 135</td>
<td>Dental Radiology</td>
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<tr>
<td>DHP 136</td>
<td>Periodontics I</td>
<td>2</td>
</tr>
<tr>
<td>DHP 220</td>
<td>Dental Hygiene III</td>
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<td>DHP 222</td>
<td>Special Needs Patients</td>
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<td>DHP 224</td>
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<td>DHP 226</td>
<td>Periodontics II</td>
<td>2</td>
</tr>
<tr>
<td>DHP 230</td>
<td>Dental Hygiene IV</td>
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<tr>
<td>DHP 235</td>
<td>Principles of Practice</td>
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<tr>
<td>DHP 238</td>
<td>Community Dental Health</td>
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</table>

#### Subtotal Credits

39

### Total Program Credits

68

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1. **Prerequisites apply**
2. *The Dental Hygiene Program at BCTC requires that BIO 137 & BIO 139 or their equivalents be successfully completed with a grade of C or higher prior to beginning DHP 120.
3. **Documentation of computer/digital literacy as defined by KCTCS is required prior to admission to DHP courses. CPR certification for the healthcare provider must be obtained prior to enrolling in DHP 120 and certification must be kept current throughout the Program.**

---

### Academic Curricula

**Culinary Arts**

- **Professional Development - 1205033099** *(Offered at SKY, SMC, WKC)*
  - CUL 100: Introduction to Culinary Arts...OR (2)
  - CUL 105: Applied Introduction to Culinary Arts (4)
  - CUL 125: Sanitation and Safety (2)
  - CUL 215: Basic Baking (4)
  - CUL 220: Advanced Baking (4)

#### Subtotal Credits

12

**Baking - 1205033109** *(Offered at ASC, MYC, SKY, SMC, WKC)*

- CUL 100: Introduction to Culinary Arts...OR (2)
- CUL 105: Applied Introduction to Culinary Arts (4)
- CUL 125: Sanitation and Safety (2)
- CUL 215: Basic Baking (4)
- CUL 220: Advanced Baking (4)

#### Subtotal Credits

12

---

**Dental Hygiene**

This program prepares students to function as dental hygienists on a dental team under the general supervision of a dentist. The curriculum includes courses in general education and in dental hygiene as required by the Commission on Dental Accreditation and Kentucky state dental practice act. The program provides comprehensive educational experiences through lectures, clinical and related study in order that students may apply scientific knowledge in the performance of dental hygiene procedures. Students enrolled in the Dental Hygiene program must achieve a minimum grade of “C” in each Dental Hygiene and approved science course. Documentation of computer literacy as defined by KCTCS and Cardiopulmonary resuscitation (CPR) are required prior to admission to DHP courses.

---

**Associate in Applied Science**

**Dental Hygiene - 5106027019** *(Offered at BLC)*

#### General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I*</td>
<td>4</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology I*</td>
<td>4</td>
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<tr>
<td>BIO 226</td>
<td>Principles of Microbiology</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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#### Subtotal Credits

29

#### Technical Courses

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<td>DHP 121</td>
<td>Oral Biology I</td>
<td>3</td>
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<tr>
<td>DHP 122</td>
<td>Dental Nutrition</td>
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<td>DHP 130</td>
<td>Dental Hygiene II</td>
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<tr>
<td>DHP 131</td>
<td>Oral Biology II</td>
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</tr>
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<td>DHP 135</td>
<td>Dental Radiology</td>
<td>3</td>
</tr>
<tr>
<td>DHP 136</td>
<td>Periodontics I</td>
<td>2</td>
</tr>
<tr>
<td>DHP 220</td>
<td>Dental Hygiene III</td>
<td>3</td>
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<td>DHP 222</td>
<td>Special Needs Patients</td>
<td>3</td>
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<td>DHP 224</td>
<td>Dental Materials</td>
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<td>DHP 226</td>
<td>Periodontics II</td>
<td>2</td>
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<td>Dental Hygiene IV</td>
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<td>DHP 238</td>
<td>Community Dental Health</td>
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#### Subtotal Credits

39

#### Total Program Credits

68

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**Recommended Electives (Not Required)**

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<tr>
<td>ENG 102</td>
<td>Writing II</td>
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<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness</td>
<td>(3)</td>
</tr>
</tbody>
</table>

---

The Dental Assisting/Dental Hygiene Integrated Program prepares students to function as dental hygienists on a dental team under the general supervision of a dentist. The curriculum includes courses in general education and dental hygiene as required by the Commission on Dental Accreditation. Students enrolled in the Dental Hygiene program must achieve a minimum grade of “C” in each Dental Hygiene and approved science course. Documentation of computer literacy as defined by KCTCS and Cardiopulmonary resuscitation (CPR) are required prior to admission to DHP courses. CPR certification for the healthcare provider must be obtained prior to enrolling in DHP 120 and certification must be kept current throughout the Program.

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The Dental Assisting/Dental Hygiene Integrated Program prepares graduates to function as dental auxiliaries.

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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.

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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.

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The programs are accredited by the Commission on Dental Accreditation, a specialized accrediting body of the American Dental Association. The commission is nationally recognized by the U.S. Department of Education to accredit dental and dental related educational programs at the post-secondary level.
### Associate in Applied Science

**Dental Hygiene - 5106027040**

*(Offered in West Consortium – Credential granted by Henderson CC but also taught at West KY CTC)*

*(Offered in East Consortium – Credential granted by Big Sandy CTC but also taught at Somerset CC)*

<table>
<thead>
<tr>
<th>General Education Classes:</th>
<th></th>
</tr>
</thead>
<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>BIO 137 Human Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139 Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO 225 Medical Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>PSY 110 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110 Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150 College Algebra and Functions</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Elective</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DHG 221 Local Anesthesia and Nitrous Oxide Sedation</td>
<td>2</td>
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</table>

**Diploma**

**Dental Assisting - 5106024019**

*(Offered in West Consortium – Credential granted by Ashland CTC, Big Sandy CTC, West KY CTC but also taught at Henderson CC)*

**Program Related Classes**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

*Required at Bluegrass CTC, recommended at West Kentucky CTC

**Subtotal**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAS 125</td>
<td>Dental Assisting I</td>
<td>6</td>
</tr>
<tr>
<td>DAS 130</td>
<td>Seminar I</td>
<td>2</td>
</tr>
<tr>
<td>DAS 225</td>
<td>Dental Assisting II</td>
<td>2</td>
</tr>
<tr>
<td>DAS 230</td>
<td>Seminar II</td>
<td>1</td>
</tr>
<tr>
<td>DAS 245</td>
<td>Preventive Dentistry</td>
<td>2</td>
</tr>
<tr>
<td>DAS 250</td>
<td>Clinical Externship</td>
<td>5</td>
</tr>
</tbody>
</table>

**Total Credit Hours**

| 38-45 |

**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 cerebrovascular, 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.
### General Education:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 150</td>
<td>College Algebra or higher mathematics course</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</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 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>PHY 151</td>
<td>Introductory Physics I OR</td>
<td>3</td>
</tr>
<tr>
<td>PHY 152</td>
<td>Introductory Physics II OR</td>
<td>(3)</td>
</tr>
<tr>
<td>PHY 171</td>
<td>Applied Physics</td>
<td>(4)</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>19-24</strong></td>
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</table>

### General/Vascular Sonography Track – 510910705

(Offered at ELC, HZC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS 120</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>DMS 109</td>
<td>Sonography I</td>
<td>7</td>
</tr>
<tr>
<td>DMS 115</td>
<td>Sonography II</td>
<td>6</td>
</tr>
<tr>
<td>DMS 119</td>
<td>Ultrasonic Physics and Instrumentation</td>
<td>6</td>
</tr>
<tr>
<td>DMS 199</td>
<td>Online Physics Review AND/OR</td>
<td>1</td>
</tr>
<tr>
<td>DMS 201</td>
<td>Online Abdomen Review AND/OR</td>
<td>(1)</td>
</tr>
<tr>
<td>DMS 202</td>
<td>Online OB/GYN Review</td>
<td>(1)</td>
</tr>
<tr>
<td>DMS 255</td>
<td>Vascular Technology</td>
<td>6</td>
</tr>
<tr>
<td>DMS 260</td>
<td>Vascular Clinical Education</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>19-24</strong></td>
</tr>
</tbody>
</table>

A total of 17 credit hours must be completed from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS 126</td>
<td>Clinical Education I</td>
<td>(3-4)</td>
</tr>
<tr>
<td>DMS 230</td>
<td>Clinical Education II</td>
<td>(5-8)</td>
</tr>
<tr>
<td>DMS 240</td>
<td>Clinical Education III</td>
<td>(5-8)</td>
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<tr>
<td><strong>Subtotal</strong></td>
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<td><strong>50-52</strong></td>
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</tbody>
</table>

Total 69-76

### Cardiac Sonography Track – 510910708

(Offered at ELC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS 120</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>DMS 105</td>
<td>Introduction to Cardiology</td>
<td>13</td>
</tr>
<tr>
<td>DMS 145</td>
<td>Cardiac Sonography I</td>
<td>12</td>
</tr>
<tr>
<td>DMS 205</td>
<td>Cardiac Sonography II</td>
<td>6</td>
</tr>
<tr>
<td>DMS 215</td>
<td>Cardiac Sonography III</td>
<td>6</td>
</tr>
<tr>
<td>DMS 245</td>
<td>Cardiac Sonography IV</td>
<td>6</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</table>

Total 63-68

### Certificates

### Basic Vascular Sonography Technology – 5109103069

(Offered at SKY)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS 280</td>
<td>Basic Vascular Technology</td>
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Total 3

### Vascular Sonography – 5109103099

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS 111</td>
<td>Abdominal Sonography</td>
<td>7</td>
</tr>
<tr>
<td>DMS 116</td>
<td>OB/GYN Sonography</td>
<td>6</td>
</tr>
<tr>
<td>DMS 121</td>
<td>Sonography Physics and Instrumentation</td>
<td>6</td>
</tr>
<tr>
<td>DMS 199</td>
<td>Online Physics Review</td>
<td>1</td>
</tr>
<tr>
<td>DMS 201</td>
<td>Online Abdomen Review</td>
<td>1</td>
</tr>
<tr>
<td>DMS 202</td>
<td>Online OB/GYN Review</td>
<td>1</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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<td><strong>43</strong></td>
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</table>

A total of 17 credit hours must be completed from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS 126</td>
<td>Clinical Education I</td>
<td>(3-4)</td>
</tr>
<tr>
<td>DMS 230</td>
<td>Clinical Education II</td>
<td>(5-8)</td>
</tr>
<tr>
<td>DMS 240</td>
<td>Clinical Education III</td>
<td>(5-8)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>39</strong></td>
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</table>

### General Sonography -5109103089

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS 117</td>
<td>Vascular Sonography I</td>
<td>7</td>
</tr>
<tr>
<td>DMS 118</td>
<td>Vascular Sonography II</td>
<td>6</td>
</tr>
<tr>
<td>DMS 121</td>
<td>Sonography Physics and Instrumentation</td>
<td>6</td>
</tr>
<tr>
<td>DMS 136</td>
<td>Vascular Clinical Education I</td>
<td>4</td>
</tr>
<tr>
<td>DMS 199</td>
<td>Online Physics Review</td>
<td>1</td>
</tr>
<tr>
<td>DMS 204</td>
<td>Online Vascular Review</td>
<td>2</td>
</tr>
<tr>
<td>DMS 206</td>
<td>Online Vascular Sonography III</td>
<td>3</td>
</tr>
<tr>
<td>DMS 236</td>
<td>Vascular Clinical Education II</td>
<td>8</td>
</tr>
<tr>
<td>DMS 237</td>
<td>Vascular Clinical Education III</td>
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<tr>
<td><strong>Subtotal</strong></td>
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<td><strong>42</strong></td>
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### Basic Cardiac Ultrasound Technology - 5109103059

(Offered at SKY)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS 217</td>
<td>Basic Cardiac Ultrasound Technology</td>
<td>3</td>
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</table>

Total 3

### Academic Curricula

### Total Academic Hours

- General Education: 43
- Cardiac Sonography Track: 44
- General/Vascular Sonography Track: 43
- Total: 62-67
**Diesel Technology**

Emphasizes the skills needed to analyze malfunctions and repair, rebuild and maintain construction equipment, agriculture equipment, or medium and heavy trucks in this program of study. Provides instruction and experience in systems such as diesel engines, fuel injection, onboard computers, transmissions, steering and suspension, and brakes.

A student must receive a grade of “C” or better to receive credit for successful completion of courses in the diesel technology curriculum.

**Associate in Applied Science**

**Diesel Technology - 4706057039**  
*(Offered at ELC, HPC, OWC, SEC)*

**General Education:**
- 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 ...................................... 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 HPC, OWC, SEC)*

**DIP**
- 152 Powertrain for Construction Equipment .............. 3
- 153 Powertrain for Construction Equipment Lab .......... 2
- 121 Introduction to Maintenance Welding Lab OR ........ 2
- 100 Welding for Maintenance AND ........................... 3
- 101 Welding for Maintenance Lab ............................ 2
- 120 Shielded Metal Arc Welding (SMAW) AND ........... 3
- 121 Shielded Metal Arc Welding (SMAW) Lab ............ 2

**Subtotal 8-10**

**Total 62-64**

**Construction Equipment Technician Track - 470605702**  
*(Offered at ELC, OWC, SEC)*

**DIT**
- 121 Introduction to Maintenance Welding Lab OR ........ 3
- 100 Welding for Maintenance AND ........................... 3
- 101 Welding for Maintenance Lab ............................ 2
- 120 Shielded Metal Arc Welding (SMAW) AND ........... 3
- 121 Shielded Metal Arc Welding (SMAW) Lab ............ 2
- 123 Undercarriage Lab ........................................... 3
- 152 Powertrain for Construction Equipment .............. 3
- 153 Powertrain for Construction Equipment Lab .......... 2

**Subtotal 11-13**

**Total 65-67**

**Medium and Heavy Truck Technician Track - 470605703**  
*(Offered at ELC, OWC, SEC)*

**DIT**
- 180 Brakes .......................................................... 3
- 181 Brakes Lab ...................................................... 2
- 160 Steering and Suspension ................................... 3
- 161 Steering and Suspension Lab ............................. 2
- 121 Introduction to Maintenance Welding Lab OR ........ 3
- 100 Welding for Maintenance AND ........................... 3
- 101 Welding for Maintenance Lab ............................ 2
- 120 Shielded Metal Arc Welding (SMAW) AND ........... 3
- 121 Shielded Metal Arc Welding (SMAW) Lab ............ 2
- 123 Undercarriage Lab ........................................... 3
- 152 Powertrain for Construction Equipment .............. 3
- 153 Powertrain for Construction Equipment Lab .......... 2
- 105 Mechanical Concepts OR .................................... 1
- 100 Precision Measurement ....................................... 3
- 193 Special Problems I ............................................ 1
- 195 Special Problems II .......................................... 2
- 197 Special Problems III .......................................... 3
- 198 Practicum ...................................................... 1
- 298 Practicum II .................................................... 2
- 199 Cooperative Education ....................................... 1
- 299 Cooperative Education II ..................................... 2

**Subtotal 10**

**Total 64**

**Recommended Technical Electives (Program Coordinator Approval required)**

**DIT**
- 180 Brakes .......................................................... 3
- 181 Brakes Lab ...................................................... 2
- 160 Steering and Suspension ................................... 3
- 161 Steering and Suspension Lab ............................. 2
- 121 Introduction to Maintenance Welding Lab OR ........ 3
- 100 Welding for Maintenance AND ........................... 3
- 101 Welding for Maintenance Lab ............................ 2
- 120 Shielded Metal Arc Welding (SMAW) AND ........... 3
- 121 Shielded Metal Arc Welding (SMAW) Lab ............ 2
- 123 Undercarriage Lab ........................................... 3
- 152 Powertrain for Construction Equipment .............. 3
- 153 Powertrain for Construction Equipment Lab .......... 2
- 105 Mechanical Concepts OR .................................... 1
- 100 Precision Measurement ....................................... 3
- 193 Special Problems I ............................................ 1
- 195 Special Problems II .......................................... 2
- 197 Special Problems III .......................................... 3
- 198 Practicum ...................................................... 1
- 298 Practicum II .................................................... 2
- 199 Cooperative Education ....................................... 1
- 299 Cooperative Education II ..................................... 2

**Total 6**

**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 .................................... 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 ................ 2

**Total 62-64**
### 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 |

#### Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DIT 101</td>
<td>Preventive Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 111</td>
<td>Introduction to Diesel Engines AND</td>
<td>3</td>
</tr>
<tr>
<td>DAX 170</td>
<td>Basic Automotive Elec. 1</td>
<td>3</td>
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<tr>
<td>DAX 171</td>
<td>Basic Automotive Elec. 1 Lab</td>
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<tr>
<td>DAX 190</td>
<td>Basic Automotive Elec. 2</td>
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<tr>
<td>DAX 191</td>
<td>Basic Automotive Elec. 2 Lab</td>
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<tr>
<td>ECT 100</td>
<td>Circuits I</td>
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<tr>
<td>ECT 101</td>
<td>Circuits I Lab</td>
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</table>

### Subtotal
50-55 credits

---

### Medium and Heavy Truck Technician - 4706054049
*(Offered at ASC, BSC, ELC, GTW, HZC, MYC, OWC, 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 |

#### Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DAX 170</td>
<td>Basic Automotive Elec. 1</td>
<td>3</td>
</tr>
<tr>
<td>DAX 171</td>
<td>Basic Automotive Elec. 1 Lab</td>
<td>3</td>
</tr>
<tr>
<td>BAX 100</td>
<td>Basic Electricity for Non-Majors AND</td>
<td>3</td>
</tr>
<tr>
<td>BAX 101</td>
<td>Basic Electricity for Non-Majors OR</td>
<td>2</td>
</tr>
<tr>
<td>DAX 290</td>
<td>Basic Automotive Elec. 2 AND</td>
<td>2</td>
</tr>
<tr>
<td>DAX 291</td>
<td>Basic Automotive Elec. 2 Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>ECT 100</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ECT 101</td>
<td>Circuits I Lab</td>
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### Subtotal
54 credits

---

### Recommended Technical Electives (Program Coordinator Approval required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>DAX 180</td>
<td>Brakes</td>
<td>3</td>
</tr>
<tr>
<td>DAX 181</td>
<td>Brakes Lab</td>
<td>3</td>
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<tr>
<td>DAX 182</td>
<td>Steering and Suspension</td>
<td>3</td>
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<tr>
<td>DAX 183</td>
<td>Steering and Suspension Lab</td>
<td>2</td>
</tr>
<tr>
<td>DAX 290</td>
<td>Basic Automotive Elec. 2 AND</td>
<td>3</td>
</tr>
<tr>
<td>DAX 291</td>
<td>Basic Automotive Elec. 2 Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>DAX 120</td>
<td>Undercarriage Lab AND</td>
<td>3</td>
</tr>
<tr>
<td>DAX 121</td>
<td>Undercarriage Lab Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>DAX 140</td>
<td>Hydraulics AND</td>
<td>3</td>
</tr>
<tr>
<td>DAX 141</td>
<td>Hydraulics Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>FAX 100</td>
<td>Fluid Power AND</td>
<td>3</td>
</tr>
<tr>
<td>FAX 101</td>
<td>Fluid Power Lab</td>
<td>2</td>
</tr>
<tr>
<td>DAX 190</td>
<td>Electrical Systems for Diesel Equipment AND</td>
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### Subtotal
53-58 credits
<table>
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<tr>
<td>DIT 298</td>
<td>Practicum II........................................</td>
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<td>DIT 199</td>
<td>Cooperative Education ................................</td>
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<tr>
<td>DIT 299</td>
<td>Cooperative Education II ................................</td>
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</table>

(Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)

**Certificate**

**Agriculture Equipment Mechanic Helper - 4706053109**

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

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ADX 150</td>
<td>Engine Repair AND ....................................</td>
<td>3</td>
</tr>
<tr>
<td>ADX 151</td>
<td>Engine Repair Lab OR ..................................</td>
<td>2</td>
</tr>
<tr>
<td>DIT 110</td>
<td>Introduction to Diesel Engines AND ...............</td>
<td>3</td>
</tr>
<tr>
<td>DIT 111</td>
<td>Introduction to Diesel Engines Lab ................</td>
<td>2</td>
</tr>
<tr>
<td>ADX 260</td>
<td>Electrical Systems AND ................................</td>
<td>3</td>
</tr>
<tr>
<td>ADX 261</td>
<td>Electrical Systems Lab OR ................................</td>
<td>2</td>
</tr>
<tr>
<td>DIT 190</td>
<td>Electrical Systems for Diesel Equipment AND .......</td>
<td>3</td>
</tr>
<tr>
<td>DIT 191</td>
<td>Electrical Systems for Diesel Equipment Lab ......</td>
<td>2</td>
</tr>
<tr>
<td>DIT 112</td>
<td>Diesel Engine Repair ..................................</td>
<td>3</td>
</tr>
<tr>
<td>DIT 113</td>
<td>Diesel Engine Repair Lab ................................</td>
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</tr>
<tr>
<td>DIT 152</td>
<td>Powertrain for Construction Equipment .............</td>
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</tr>
<tr>
<td>DIT 153</td>
<td>Powertrain for Construction Equipment Lab .........</td>
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</table>

**Total** 20

**Construction Equipment Mechanic Helper - 4706053019**

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

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ADX 150</td>
<td>Engine Repair AND ....................................</td>
<td>3</td>
</tr>
<tr>
<td>ADX 151</td>
<td>Engine Repair Lab OR ..................................</td>
<td>2</td>
</tr>
<tr>
<td>DIT 110</td>
<td>Introduction to Diesel Engines AND ...............</td>
<td>3</td>
</tr>
<tr>
<td>DIT 111</td>
<td>Introduction to Diesel Engines Lab ................</td>
<td>2</td>
</tr>
<tr>
<td>ADX 260</td>
<td>Electrical Systems AND ................................</td>
<td>3</td>
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<tr>
<td>ADX 261</td>
<td>Electrical Systems Lab OR ................................</td>
<td>2</td>
</tr>
<tr>
<td>DIT 190</td>
<td>Electrical Systems for Diesel Equipment AND .......</td>
<td>3</td>
</tr>
<tr>
<td>DIT 191</td>
<td>Electrical Systems for Diesel Equipment Lab ......</td>
<td>2</td>
</tr>
<tr>
<td>DIT 112</td>
<td>Diesel Engine Repair ..................................</td>
<td>3</td>
</tr>
<tr>
<td>DIT 113</td>
<td>Diesel Engine Repair Lab ................................</td>
<td>2</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>
<td>2</td>
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<tr>
<td>DIT 123</td>
<td>Undercarriage Lab .....................................</td>
<td>3</td>
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</table>

**Total** 23

**Diesel Engine Mechanic - 4706053079**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DIT 110</td>
<td>Introduction to Diesel Engines AND ...............</td>
<td>3</td>
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<tr>
<td>DIT 111</td>
<td>Introduction to Diesel Engines Lab ................</td>
<td>2</td>
</tr>
<tr>
<td>ADX 150</td>
<td>Engine Repair AND ....................................</td>
<td>3</td>
</tr>
<tr>
<td>ADX 151</td>
<td>Engine Repair Lab OR ..................................</td>
<td>2</td>
</tr>
<tr>
<td>DIT 112</td>
<td>Diesel Engine Repair ..................................</td>
<td>3</td>
</tr>
<tr>
<td>DIT 113</td>
<td>Diesel Engine Repair Lab ................................</td>
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<tr>
<td>Electives (Diesel Courses/Industrial Education Core)</td>
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</table>

**Total** 12

**Diesel Mechanics Assistant - 4706053189**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab ................................</td>
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<td>DIT 110</td>
<td>Introduction to Diesel Engines .....................</td>
<td>3</td>
</tr>
<tr>
<td>DIT 111</td>
<td>Introduction to Diesel Engines Lab ................</td>
<td>2</td>
</tr>
<tr>
<td>DIT 112</td>
<td>Diesel Engine Repair ..................................</td>
<td>3</td>
</tr>
<tr>
<td>DIT 113</td>
<td>Diesel Engine Repair Lab ................................</td>
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</tr>
<tr>
<td>DIT 160</td>
<td>Steering and Suspension ................................</td>
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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>
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</tr>
<tr>
<td>DIT 190</td>
<td>Electrical Systems for Diesel Equipment ..........</td>
<td>3</td>
</tr>
<tr>
<td>DIT 191</td>
<td>Electrical Systems for Diesel Equipment Lab ......</td>
<td>2</td>
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</table>

**Total** 27

**Diesel Steering & Suspension Mechanic - 4706053179**

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

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>Steering and Suspension ................................</td>
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<td>DIT 161</td>
<td>Steering and Suspension Lab ................................</td>
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**Total** 12

**Electrical/Electronics Systems Mechanic - 4706053059**

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

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>BEX 100</td>
<td>Basic Electricity for Non-Majors AND ............</td>
<td>3</td>
</tr>
<tr>
<td>BEX 101</td>
<td>Basic Electricity Lab for Non-Majors OR ..........</td>
<td>2</td>
</tr>
<tr>
<td>ADX 120</td>
<td>Basic Automotive Electricity AND ..................</td>
<td>3</td>
</tr>
<tr>
<td>ADX 121</td>
<td>Basic Automotive Electricity Lab ..................</td>
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<tr>
<td>ENGT 110</td>
<td>Circuits I ............................................</td>
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</tr>
<tr>
<td>DIT 190</td>
<td>Electrical Systems for Diesel Equipment ..........</td>
<td>3</td>
</tr>
<tr>
<td>DIT 191</td>
<td>Electrical Systems for Diesel Equipment Lab ....</td>
<td>2</td>
</tr>
<tr>
<td>ADX 260</td>
<td>Electrical Systems AND ................................</td>
<td>3</td>
</tr>
<tr>
<td>ADX 261</td>
<td>Electrical Systems Lab OR ................................</td>
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**Total** 12

**Fluid Power Mechanic - 4706053119**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
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<td>FXP 100</td>
<td>Fluid Power OR ........................................</td>
<td>3</td>
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<tr>
<td>DIT 140</td>
<td>Hydraulics ............................................</td>
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<tr>
<td>FXP 101</td>
<td>Fluid Power Lab OR ...................................</td>
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<tr>
<td>DIT 141</td>
<td>Hydraulics Lab ........................................</td>
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<tr>
<td>Electives (Diesel Courses/Industrial Education Core)</td>
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**Total** 12

**Heavy Duty Brake Mechanic - 4706053039**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DIT 180</td>
<td>Brakes ................................................</td>
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<tr>
<td>DIT 181</td>
<td>Brakes Lab .............................................</td>
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<tr>
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**Total** 12

**Heavy Duty Drive Train Mechanic - 4706053089**

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

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>DIT 150</td>
<td>Power Trains .........................................</td>
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<tr>
<td>DIT 151</td>
<td>Power Trains Lab ......................................</td>
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<tr>
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**Total** 12

**Medium and Heavy Truck Mechanic Helper - 4706053149**

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

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<th>Course Title</th>
<th>Credits</th>
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<td>ADX 120</td>
<td>Basic Automotive Electricity AND ...................</td>
<td>3</td>
</tr>
<tr>
<td>ADX 121</td>
<td>Basic Automotive Electricity Lab ...................</td>
<td>2</td>
</tr>
<tr>
<td>BEX 100</td>
<td>Basic Electricity for Non-Majors AND ............</td>
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<td>BEX 101</td>
<td>Basic Electricity Lab for Non-Majors OR ..........</td>
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<td>ELT 110</td>
<td>Circuits I ............................................</td>
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</tr>
<tr>
<td>ADX 150</td>
<td>Engine Repair AND ....................................</td>
<td>3</td>
</tr>
<tr>
<td>ADX 151</td>
<td>Engine Repair Lab OR ..................................</td>
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<tr>
<td>DIT 110</td>
<td>Introduction to Diesel Engines AND ...............</td>
<td>3</td>
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<tr>
<td>DIT 111</td>
<td>Introduction to Diesel Engines Lab ................</td>
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</tr>
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<td>ADX 260</td>
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<td>ADX 261</td>
<td>Electrical Systems Lab OR ................................</td>
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<td>DIT 190</td>
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**Total** 30
Digital Game and Simulation Design

Provides students with a thorough understanding of techniques for designing advanced 3D games and simulations. Courses will cover 2D and 3D graphics, animation, character development, texturing, rigging, scripting and game setup using state-of-the-art software development tools.

Completing students will have developed the skills necessary to create sophisticated 3D graphics and a simple application that can be used for games and simulations.

Certificate

Digital Game and Simulation Design - 1108033029

(Offered at JFC)

DGD 131 3D Texturing and Lighting I .................................................. 3
DGD 132 Introduction to Digital 3D Graphics ......................................... 3
DGD 231 3D Texturing and Lighting II ................................................... 3
DGD 232 3D Character Development .................................................... 3
DGD 233 3D Character Rigging ............................................................ 3
DGD 234 3D Animation ...................................................................... 3
DGD 235 3D Special Effects .............................................................. 3
DGD 236 Game Engines I ................................................................. 3
DGD 237 Game Engines II ................................................................. 3

Subtotal 27-30

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 SMC)

DPT 100 Introduction to 3D Printing Technology OR .................................. 3
DPT 102 3D Printing Technology Fundamentals AND ................................ (2)
CIT 105 Introduction to Computers .......................................................... 3
BAS 160 Introduction to Business OR ...................................................... 3
BAS 170 Entrepreneurship ................................................................... 3
DPT 150 Introduction to Engineering Mechanics for 3D Printing .......... 3
DPT 280 Special Projects for 3D Printing, Level I .................................. 1
Elective: Any technical, entry level course within a field where 3D printing applications exist .... 3
Elective: Any technical, entry level course within a field where 3D printing applications exist .... 3

Total 16-18

Education

The Associate in Applied Science Degree (AAS) – Education: Educator Preparation is a pathway designed for students who wish to begin coursework at a community and technical college and then apply for transfer admission to a teacher education program at a four-year college or university.

Associate in Applied Science

Education - 1315017019

Educator Preparation Track - 131501703

(Offered at BLC, BSC, ELC, GTW, JFC, SEC)

General Education

ENG 101 Writing I ................................................................................. 3
ENG 102 Writing II ............................................................................ 3
COM 181 Basic Public Speaking ......................................................... 3
COM 252 Introduction to Interpersonal Communications ................. (3)
– Arts and Humanities1 .................................................................. 3-4
HIS 108 History of the United States Through 1865 ................... 3
HIS 109 History of the United States Since 1865 ............................. (3)
MAT 146 Contemporary College Mathematics .................................. 3
MAT 150 College Algebra ................................................................. 3
OR
MA 109 College Algebra ................................................................... 3
OR
MA 111 Contemporary Mathematics .............................................. (3)
Natural Sciences1 ........................................................................... 6
PSY 110 General Psychology ........................................................... 3
Social/Behavioral Sciences1 ......................................................... 6

Subtotal 34-35
Emergency Medical Services - Paramedic

Provides a comprehensive course of study that prepares the graduate for licensure as a Paramedic (EMTP). The curriculum is structured based on the National EMS Education Standards and regulations set forth by the Kentucky Board of Emergency Medical Services (KBEMS). The three-phase curriculum is designed to provide the student with the cognitive knowledge, psychomotor skills, and affective behaviors necessary to competently perform as a Paramedic. The EMS program prepares students to function in the emergency medical profession as a Paramedic in a variety of environments. Graduates primarily provide pre-hospital emergency care to acutely ill and/or injured individuals while working on an ambulance, mobile advanced life support unit, industrial on-site unit, fire department, emergency department, and other agencies. Graduates are eligible to apply to take the National Registry Paramedic Exam. Students may earn either a Certificate or Associate in Applied Science Degree at the Paramedic level. Credit may be awarded to currently practicing paramedics towards the Associate in Applied Science Degree. Enrollment in this program is limited; therefore, a selective admissions process is followed. Students are required to hold current unrestricted certification as an EMT in Kentucky or hold current unrestricted registration with the National Registry EMT as an EMT to be eligible for paramedic program admission.

Acceptance into the EMS-Paramedic Program is based upon a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Applicants must present current, unrestricted state certification or proof of National Registry of EMT eligibility to become state certified. Licensed paramedics may receive credit towards the Associate of Applied Science in Emergency Medical Services – Paramedic. When eligible, the licensed paramedic will be awarded thirty-eight (38) semester credit hours upon the completion of: a) applying to the college of choice; b) submitting a letter of intent and a copy of the required licensure/certification document to the program coordinator with subsequent validation by the Registrar; and c) completing at least nine (9) credit hours from the degree-granting institution. Credit will be awarded as follows: 1 credit hour/EMS 200 Introduction to Paramedicine; 3 credit hours/EMS 210 Emergency Pharmacology; 3 credit hours/EMS 220 Cardiovascular Emergencies; 4 credit hours/EMS 230 Traumatic Emergencies; 3 credit hours/EMS 240 Medical Emergencies I; 3 credit hours/EMS 250 Medical Emergencies II; 3 credit hours/EMS 260 Special Populations; 1 credit hour/EMS 270 EMS Operations; 1 credit hour/EMS 275 Seminar in ALS; 5 credit hours/EMS 285 Field Internship & Summation; 2 credit hours/EMS 211 Fundamentals Lab; 1 credit hour/EMS 221 Cardiac & Trauma Lab; 1 credit hour/EMS 231 Medical Lab; 1 credit hour/EMS 215 Clinical Experience I; 1 credit hour/EMS 225 Clinical Experience II; 2 credit hours/EMS 235 Clinical Experience III. Students must meet the twenty-five percent (25%) residency requirements of the degree-granting institution.

Students select their career option preference, certificate or degree, either during advising or upon admission to the program, but may choose to change their career path while in the program without reapplying for admission to the college.

Student can receive a certificate as an Electrocardiogram Technician by completing EMS 150. EMS 150 will prepare students to perform and interpret electrocardiograms in a hospital or clinical setting.

Associate in Applied Science

Emergency Medical Services - Paramedic - 5109047029

(Offered at GTW, HPC, HZC, JFC, MDC, OWC, SMC)

General Education:

ENG 101 Writing I ...............................................................3
PSY 110 General Psychology ..................................................3
BIO 135 Basic Anatomy and Physiology with Laboratory* .................4
CLA 131 Medical Terminology from Greek and Latin .......................3
EMB 200 Introduction to Paramedicine .....................................4
EMB 210 Emergency Pharmacology .........................................3
EMB 211 Fundamentals Lab ..................................................2
EMB 215 Clinical Experience I ..............................................1
EMB 220 Cardiovascular Emergencies ....................................3
EMB 221 Cardiac and Trauma Lab .........................................1
EMB 225 Clinical Experience II .............................................1
EMB 230 Traumatic Emergencies ..........................................4
EMB 231 Medical Lab .........................................................1
EMB 235 Clinical Experience III ..........................................2
EMB 240 Medical Emergencies I ..........................................3
EMB 250 Medical Emergencies II .........................................3
EMB 260 Special Populations ................................................3
EMB 270 EMS Operations ..................................................1
EMB 275 Seminar in Advanced Life Support (ALS) ......................1
EMB 285 Field Internship & Summation ..................................5-6
AHS 201 Management Principles for Allied Health Providers ..........3

Total Credits 63-67

*BIO 137 & BIO 139 may be substituted for BIO 135

Certificate

Emergency Medical Services - Paramedic - 5109043040

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

BIO 135 Basic Anatomy and Physiology with Laboratory* .................4
AHS 115 Medical Terminology OR ..........................................3
CLA 131 Medical Terminology Greek/Latin ................................3
FHM 100 Dosage Calculations OR ...........................................2
MAT 110 Applied Mathematics ...............................................3
EMB 200 Introduction to Paramedicine .....................................4
EMB 210 Emergency Pharmacology .........................................3
EMB 211 Fundamentals Lab ..................................................2
EMB 215 Clinical Experience I ..............................................1
EMB 220 Cardiovascular Emergencies ....................................3
EMB 221 Cardiac and Trauma Lab .........................................1
EMB 225 Clinical Experience II .............................................1

Total Credits 63-67
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.

Energy Management - 1505034019

General Education

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<tr>
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<td>Energy Analysis and Efficiency</td>
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<tr>
<td>ENM 250</td>
<td>Regulatory and Environmental Issues</td>
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<tr>
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<td>Air Conditioning and Refrigeration Regulations</td>
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<td>Principles of Management OR</td>
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Subtotal 46

Total Credits 52

Certificates

Fundamentals of Energy Production – 150503089

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<td>Air Conditioning and Refrigeration Regulations</td>
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Total Credits 15
Energy Technologies

Offers an option for students to build a career in the energy field. The degree incorporates multiple tracks for certificates associated with different energy careers, allowing students to match their strengths and interests with an appropriate plan of study. It is focused on preparing graduates to enter the workforce in positions such as an entry-level utility apprentice, line maintenance technician, transformer/relay technician, fiber optic technician, outside plant fiber optic technician, network communications technician, voice and data wiring technician, or renewable energy and energy efficiency specialist. The degree provides a broad foundation across many facets of utility and communications technologies, resulting in a multi-skilled technician valued by the workforce. Hands-on instruction is used to teach students aspects of smart grid technology, fiber optics installation, utility operation, line maintenance, underground operations, substation operations, transmission distribution, solar/photovoltaic systems installation, design and placement of wind energy systems, energy efficiency analysis, electrical energy efficiency control technologies, and job safety. The technical certificate tracks are complemented by an operations management certificate, which provides background knowledge of business operations.

**Associate in Applied Science**

**Energy Technologies - 1505030709**

(Offered at GTW)

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**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.

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**Total Credits** 60-64

**Certificate**

**Energy Efficiency Electrical Controls Technician – 150503049**

(Offered at GTW)

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**Outside Plant Technician – 150503039**

(Offered at GTW)

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**Energy Utility Technician – 150503029**

(Offered at GTW)

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**Wind System Technologies – 150503059**

(Offered at BSC, BLC, GTW)

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**Solar/Photovoltaic Technologies – 150503069**

(Offered at BSC, BLC, GTW)

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</table>
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**

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**Electronics Track - 150399707**
*(Offered at BLC, ELC, HPC, JFC, OWC, SMC)*

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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

---

**Computer Maintenance Track - 150399703**
*(Offered at BLC, ELC, JFC, SMC)*

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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

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**Apprenticeship Track - 150399701**
*(Offered at JFC)*

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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

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**Mechanical Track - 150399706**
*(Offered at JFC, OWC)*

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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

---

**Industrial Track - 150399704**
*(Offered at BLC, HPC, JFC, OWC)*

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*Technical Electives: Any EET, ELT, IMT, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

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**Computer Aided Design Track - 150399702**
*(Offered at HPC, JFC)*

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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
### Robotics and Automation Track – 150399705
(Offered at BLC, HPC, JFC, SKY)

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<td>ELT 244</td>
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<td>EET 270</td>
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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

### Communications Track – 150399708
(Offered at BLC, ELC)

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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

### Instrumentation Track – 150399709
(Offered at ELC)

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ELT 220</td>
<td>Digital II</td>
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<tr>
<td>ISM 102</td>
<td>Fundamentals of Instrumentation</td>
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</tr>
<tr>
<td>ISM 210</td>
<td>Fundamentals of Process Control</td>
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<td></td>
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</table>

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

### Apprenticeship – 1503994059
(Offered at JFC)

**General Education:**

| Area 1: | Written Communication or Oral Communications | 3 |
|        | AND                                       |   |

**Area 2:**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<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>
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<td>Higher Level Quantitative Reasoning Course</td>
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<td><strong>Total:</strong></td>
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</table>

### Diplomas

**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:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
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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>
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<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
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<tr>
<td></td>
<td><strong>Total:</strong></td>
<td><strong>55-57</strong></td>
</tr>
</tbody>
</table>

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

**Industrial Electronics – 1503994079**
(Offered at BLC, HPC, JFC, OWC, SEC)

**General Education:**

| Area 1: | Written Communication or Oral Communications | 3 |
|        | AND                                       |   |

**Area 2:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<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></td>
<td>Higher Level Quantitative Reasoning Course</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal:</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>
General Education:

Core:
ELT 110 Circuits I .............................................................. 5
ELT 114 Circuits II ............................................................ 5
ELT 210 Devices I ............................................................... 4
ELT 120 Digital I ............................................................... 3
CAD 100 Introduction to Computer Aided Design OR .......... 3
CAD 103 CAD Fundamentals OR .......................................(4)
BRX 120 Basic Blueprint Reading OR ..................................(3)
Equivalent Course with Consent of Program Coordinator(3-4)
ELT 289 Engineering and Electronics Technology Capstone Course.... 1
Digital Literacy ................................................................ 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. (3)
COED 198 Practicum OR ..................................................... 1-2
COE 199 Cooperative Education OR .................................... (1-2)
Equivalent Course with Consent of Program Coordinator(1-2)
Subtotal: 25-27

Total 54-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Communications – 1503994029
(Offered at BLC, ELC, JFC, OWC, SEC, SMC)

General Education:

Area 1: Written Communication or Oral Communications ............3
AND
Area 2:
MAT 150 College Algebra OR ............................................ 3
MAT 126 Technical Algebra and Trigonometry OR ......................(3)
Higher Level Quantitative Reasoning Course ............................(3)
Subtotal: 25-27

Total 54-57

Core:
ELT 110 Circuits I .............................................................. 5
ELT 114 Circuits II ............................................................ 5
ELT 210 Devices I ............................................................... 4
ELT 120 Digital I ............................................................... 3
CAD 100 Introduction to Computer Aided Design OR .......... 3
CAD 103 CAD Fundamentals OR .......................................(4)
BRX 120 Basic Blueprint Reading OR ..................................(3)
Equivalent Course with Consent of Program Coordinator(3-4)
ELT 289 Engineering and Electronics Technology Capstone Course.... 1
Digital Literacy ................................................................ 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. (3)
COED 198 Practicum OR ..................................................... 1-2
COE 199 Cooperative Education OR .................................... (1-2)
Equivalent Course with Consent of Program Coordinator(1-2)
Subtotal: 25-27

Total 54-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Computer Maintenance – 1503994049
(Offered at BLC, ELC, JFC, OWC, SEC, SMC)

General Education:

Area 1: Written Communication or Oral Communications ............3
AND
Area 2:
MAT 150 College Algebra OR ............................................ 3
MAT 126 Technical Algebra and Trigonometry OR ......................(3)
Higher Level Quantitative Reasoning Course ............................(3)
Subtotal: 25-27

Total 54-57

Core:
ELT 110 Circuits I .............................................................. 5
ELT 114 Circuits II ............................................................ 5
ELT 210 Devices I ............................................................... 4
ELT 120 Digital I ............................................................... 3
CAD 100 Introduction to Computer Aided Design OR .......... 3

Subtotal: 25-27

Total 54-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
General Education:
Area 1: Written Communication or Oral Communications ................. 3
Area 2: MAT 150 College Algebra OR ........................................ (3)
MAT 126 Technical Algebra and Trigonometry OR ...................... (3)
Higher Level Quantitative Reasoning Course ......................... (3)
Subtotal: 6
Core:
ELT 110 Circuits I ....................................................................... 5
ELT 114 Circuits II ..................................................................... 5
ELT 210 Devices I ...................................................................... 4
ELT 120 Digital I ...................................................................... 3
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
Subtotal: 25-27
Total 55-57
*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Instrumentation – 1503994099
(Offered at ELC)

General Education:
Area 1: Written Communication or Oral Communications ................. 3
AND
Area 2: MAT 150 College Algebra OR ........................................ (3)
MAT 126 Technical Algebra and Trigonometry OR ...................... (3)
Higher Level Quantitative Reasoning Course ......................... (3)
Subtotal: 6
Core:
ELT 110 Circuits I ....................................................................... 5
ELT 114 Circuits II ..................................................................... 5
ELT 210 Devices I ...................................................................... 4
ELT 120 Digital I ...................................................................... 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
Subtotal: 25-27
Total 55-57
*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, 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 ....................................................................... 5
ELT 114 Circuits II ..................................................................... 5
ELT 210 Devices I ...................................................................... 4
ELT 120 Digital I ...................................................................... 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
Subtotal: 25-27
Total 55-57
*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. (3)

COED 198 Practicum OR ............................................. 1-2
COE 199 Cooperative Education OR ...................... (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27

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, or any other course as approved by the program coordinator.

**Digital Telephony - 1503994109**

General Education:
Area 1: Written Communication or Oral Communications ............ 3
AND

Area 2:
MAT 150 College Algebra OR ..................................... 3
MAT 126 Technical Algebra and Trigonometry OR ................. (3)
Higher Level Quantitative Reasoning Course .................. (3)
Subtotal: 6

Core:
ELT 110 Circuits I .................................................. 5
ELT 114 Circuits II .................................................. 5
ELT 210 Devices I .................................................. 4
ELT 120 Digital I ................................................... 3
CAD 100 Introduction to Computer Aided Design OR ............. 3
CAD 103 CAD Fundamentals OR ................................ (4)
BRX 120 Basic Blueprint Reading OR .......................... (3)
Equivalent Course with Consent of Program Coordinator (3-4)
ELT 289 Engineering and Electronics Technology Capstone Course 1
Digital Literacy .................................................. 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. (3)

COED 198 Practicum OR ............................................. 1-2
COE 199 Cooperative Education OR ...................... (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27

ELT 222 Mechanics of Telephony .................................. 3
ELT 224 Basic Telecommunications Installation and Maintenance .. 3
ELT 226 Safety in the Workplace OR ............................. 2
ISX 100 Industrial Safety OR ........................................ (3)
Equivalent Course with Consent of Program Coordinator ... (3)
ELT 214 Devices II .................................................. 4
ELT 220 Digital II .................................................. 3
Subtotal: 15-16

Total 46-49

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

**Electronics Technician - 1503993069**

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY, SMC)

ELT 110 Circuits I .................................................. 5
ELT 114 Circuits II .................................................. 5
ELT 210 Devices I .................................................. 4
ELT 214 Devices II .................................................. 4
ELT 120 Digital I .................................................... 3
ELT 220 Digital II .................................................. 3
Total 25

**Maintenance Technician – 1503993059**

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY)

CAD 100 Introduction to Computer Aided Design OR ............. 3
CAD 103 CAD Fundamentals OR ................................ (4)
BRX 120 Basic Blueprint Reading OR .......................... (3)
Equivalent Course with Consent of Program Coordinator (3-4)
ELT 110 Circuits I .................................................. 5
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)
ELT 250 Programmable Logic Controllers OR .................. 4
EET 276 Programmable Logic Controllers AND ............... (2)
EET 277 Programmable Logic Controllers Lab ................ (2)
Total 24-25

**Robotics and Automation Technician – 1503993099**

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY, SMC)

ELT 110 Circuits I .................................................. 5
ELT 114 Circuits II .................................................. 5
ELT 210 Devices I .................................................. 4
ELT 120 Digital I .................................................... 3
ELT 265 Applied Fluid Power ...................................... 3
ELT 260 Robotics and Industrial Automation ...................... 5
EET 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)
Total 33

**Digital Telephony Technician – 1503993119**

(Offered at BSC, JFC, SEC)

ELT 222 Mechanics of Telephony .................................. 3
ELT 224 Basic Telecommunications Installation and Maintenance .. 3
ELT 226 Safety in the Workplace OR ............................. 2
ISX 100 Industrial Safety OR ........................................ (3)
ELT 110 Circuits I .................................................. 5
ELT 120 Digital I .................................................... 3
Digital Literacy .................................................. 3
Total 19-20

**Computer Maintenance Technician – 1503993029**

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SMC)

ELT 110 Circuits I .................................................. 5
ELT 120 Digital I .................................................... 3
Digital Literacy .................................................. 3
CIT 111 Computer Hardware and Software OR ................. 4
ELT 234 Computer Hardware Maintenance AND .............. (3)
ELT 232 Computer Software Maintenance ....................... (3)
Total 15-17

**Certificates**

**Electronics Tester – 1503993089**

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SKY, SMC)

ELT 110 Circuits I .................................................. 5
ELT 114 Circuits II .................................................. 5
ELT 120 Digital I .................................................... 3
Total 13

**Academic Curricula**
### Industrial Electronics Technician I – 1503993129
*(Offered at BLC, BSC, HEC, HFC, JFC, OWC, SEC, SKY)*

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ELT 110</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 250</td>
<td>Programmable Logic Controllers OR</td>
<td>4</td>
</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
<td>2</td>
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<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
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<td><strong>Total</strong></td>
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### Industrial Electronics Technician II – 1503993139
*(Offered at BLC, BSC, HFC, JFC, OWC, SEC, SKY)*

<table>
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<tr>
<td>ELT 122</td>
<td>Mechanical Power Transmission Systems AND</td>
<td>3</td>
</tr>
<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment I AND</td>
<td>3</td>
</tr>
<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment I Lab</td>
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<td>ELT 265</td>
<td>Applied Fluid Power</td>
<td>3</td>
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<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer Aided Drafting</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

### 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 any academic program thereof regardless of economic or social status, and without discrimination on the basis of race, color, religion, sex, marital status, beliefs, age, national origin, sexual orientation, or physical or mental disability.

In order to be admitted to the Environmental Science Technology (EST) Program, each student must be admitted to Bluegrass Community and Technical College.

In order to be admitted to the Environmental Science Technology Program, a student must:

1. Complete EST 150, EST 160, and MA 109 with a passing grade or transfer credit from an accredited institution for comparable courses (to be assessed by EST Coordinator), and
2. Attend a pre-admission conference with the EST Program coordinator or the coordinator’s designee.

### Associate in Applied Science

#### Environmental Science Technology - 1505077019
*(Offered at BLC)*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ENG 101</td>
<td>Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II*</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra*</td>
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</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
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</tbody>
</table>
Environmental Technology

The environmental technology program has been developed in concert with various regulatory agencies, state universities and businesses and industries. Environmental Technicians conduct tests and field investigations to obtain data for use by environmental, engineering, and scientific personnel in determining sources and methods of controlling pollutants in air, water and soil, by utilizing knowledge of agriculture, chemistry, meteorology, engineering principles and applied technologies.

Certificates

Hazardous Materials Technician - 1505073019
(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENV 100</td>
<td>Environmental Mathematics</td>
<td>3</td>
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<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 120</td>
<td>Environmental Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ENV 121</td>
<td>Environmental Chemistry Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
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<tr>
<td>ENV 280</td>
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<td>6</td>
</tr>
<tr>
<td>ENV 281</td>
<td>Water Treatment Technology Lab</td>
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Electives:

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<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENV 293</td>
<td>Special Problems I</td>
<td>(1)</td>
</tr>
<tr>
<td>ENV 295</td>
<td>Special Problems II</td>
<td>(2)</td>
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<tr>
<td>ENV 297</td>
<td>Special Problems III</td>
<td>(3)</td>
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</tbody>
</table>

Total Credits 36

Waste Processing Attendant - 1505073029

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
<td>4</td>
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<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 260</td>
<td>Hazardous Materials Lab</td>
<td>6</td>
</tr>
<tr>
<td>ENV 261</td>
<td>Hazardous Materials Lab</td>
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Electives:

<table>
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<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENV 293</td>
<td>Special Problems I</td>
<td>(1)</td>
</tr>
<tr>
<td>ENV 295</td>
<td>Special Problems II</td>
<td>(2)</td>
</tr>
<tr>
<td>ENV 297</td>
<td>Special Problems III</td>
<td>(3)</td>
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</tbody>
</table>

Total Credits 37

Wastewater Treatment Plant Attendant - 1505073039

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENV 100</td>
<td>Environmental Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 120</td>
<td>Environmental Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ENV 121</td>
<td>Environmental Chemistry Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 270</td>
<td>Treatment and Disposal Technologies</td>
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<td>ENV 271</td>
<td>Wastewater Treatment Technology Lab</td>
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</table>

Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENV 293</td>
<td>Special Problems I</td>
<td>(1)</td>
</tr>
<tr>
<td>ENV 295</td>
<td>Special Problems II</td>
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<tr>
<td>ENV 297</td>
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Total Credits 20

Wastewater Treatment Plant Operator - 1505073049

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENV 100</td>
<td>Environmental Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 120</td>
<td>Environmental Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ENV 121</td>
<td>Environmental Chemistry Lab</td>
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</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
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<td>ENV 280</td>
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Electives:

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<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV 293</td>
<td>Special Problems I</td>
<td>(1)</td>
</tr>
<tr>
<td>ENV 295</td>
<td>Special Problems II</td>
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<tr>
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Total Credits 36

Water Treatment Plant Attendant - 1505073059

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<td>ENV 111</td>
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</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
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<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
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<td>ENV 280</td>
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<td>6</td>
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<tr>
<td>ENV 281</td>
<td>Water Treatment Technology Lab</td>
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Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV 293</td>
<td>Special Problems I</td>
<td>(1)</td>
</tr>
<tr>
<td>ENV 295</td>
<td>Special Problems II</td>
<td>(2)</td>
</tr>
<tr>
<td>ENV 297</td>
<td>Special Problems III</td>
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</table>

Total Credits 20
**Water Treatment Plant Operator - 1505073069**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENV 100</td>
<td>Environmental Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 120</td>
<td>Environmental Chemistry</td>
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<tr>
<td>ENV 121</td>
<td>Environmental Chemistry Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 270</td>
<td>Treatment and Disposal Technologies</td>
<td>3</td>
</tr>
<tr>
<td>ENV 280</td>
<td>Water Treatment Technology</td>
<td>6</td>
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<tr>
<td>ENV 281</td>
<td>Water Treatment Technology Lab</td>
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<tr>
<td>TEC 200</td>
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<td>3</td>
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**Electives:**

| ENV 293     | Special Problems I                               | 1       |
| ENV 295     | Special Problems II                              | 2       |
| ENV 297     | Special Problems III                             | 3       |

**Total Credits 36**

---

**Equine Studies**

The Equine Studies Program prepares students for entrance into the equine workforce with a focus on the thoroughbred racing industry. A core curriculum provides students with a foundation of knowledge applicable to any career in the equine workforce. Students will learn the basics of horse care, anatomy and physiology, lameness, health and nutrition and equine business principles. Students will also learn all aspects of the equine industry as it relates to the thoroughbred industry including organizations, regulations, and the life skills necessary for successful careers in the industry.

The program of study provides a foundation of education and training geared toward the expectations of employers in the equine/thoroughbred industries within two degree areas: Jockey Track and Horseman Track. Imbedded within the curriculum for each track are diplomas and certificates that provide the basic foundational skills for entry or mid-level employment in the respective area of the industry.

**Jockey Track**

Jockey Track degree and diploma graduates will have the knowledge and skills for a career as a professional rider. Students will learn principles of balance as it relates to efficient racehorse exercise; proper position and use of hands, arms, feet, legs, back and head when riding or exercising a racehorse; requirements for advancing to a professional jockey career; and life skills necessary to be a professional racehorse rider or jockey. Imbedded within the Jockey Track curriculum is the Exercise Rider Certificate that provides basic skills and techniques to prepare the student to become a professional exercise rider.

**Horseman Track**

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. Lec-
Academic Curricula

Approved Technical Electives

Any EQM or EQS course from alternate track. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.

SPA 101 Elementary Spanish .................................................. 4
EQM 120 Introduction to Commercial Breeding Practices ................. 3
EQS 118 Equine Bloodstock .................................................... 3
EQS 299 Equine Cooperative Education (internship) ...................... 1-9

Diplomas

Equine Studies - 0105074019
(Offers at BLC)

General Education Core

Area I (Written Communication / Oral Communications, or Humanities/Heritage) ............................................................. 3
Area II (Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning) .......................................................... 3
General Education Total .................................................................. 6

Technical Core

Computer/Digital Literacy ........................................................ 0-3
EQS 101 Introduction to the Thoroughbred .................................. 3
EQS 103 Racehorse Care .......................................................... 1
EQS 104 Racehorse Care Lab ...................................................... 3
EQS 110 Basic Equine Physiology ................................................ 3
EQS 125 Equine Nutrition .......................................................... 3
EQS 130 Introduction to the Racing Industry ................................ 3
EQS 200 Lameness in Racehorses .............................................. 3
EQS 240 Equine Legal and Business Principles ......................... 3
EQS 299 Equine Cooperative Education (1 credit hour min required in diploma. Additional credits may count toward elective credits) .......................................................... 1
Technical Electives ....................................................................... 6
Total Technical Core .................................................................... 29-32

Jockey Track - 010507401
(Offers at BLC)

EQS 111 Introduction to Riding Racehorses ................................ 1
EQS 112 Racehorse Riding Skills I .............................................. 4
EQS 121 Racehorse Riding Principles ......................................... 3
EQS 212 Racehorse Riding Techniques ....................................... 2
EQS 215 Life Skills for Jockeys .................................................. 3
Subtotal Jockey Track ..................................................................... 17
Total Jockey Track Diploma .......................................................... 52-55

Horseman Track - 010507402
(Offers at BLC)

EQS 118 Equine Bloodstock .................................................... 3
EQS 121 Introduction to Breaking and Training Racehorses .......... 1
EQS 122 Yearling Breaking and Training .................................... 3
EQS 123 Breaking and Training Yearlings/TwoYear Olds ............ 3
EQS 223 Training Principles and Practices .................................. 4
EQS 225 Life Skills for Horsemen .............................................. 3
Subtotal Horseman Track ................................................................ 17
Total Horseman Track .................................................................... 52-55

Approved Technical Electives

Any EQM or EQS course from alternate track. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.

SPA 101 Elementary Spanish .................................................. 4
EQM 120 Introduction to Commercial Breeding Practices ................. 3
EQS 118 Equine Bloodstock .................................................... 3
EQS 299 Equine Cooperative Education (internship) ...................... 1-9

Certificate

Exercise Rider - 0105073019
(Offers at BLC)

EQS 101 Introduction to the Thoroughbred .................................. 3
EQS 103 Racehorse Care .......................................................... 1
EQS 104 Racehorse Care Lab ...................................................... 3
EQS 110 Basic Equine Physiology ................................................ 3
EQS 111 Introduction to Riding Racehorses ................................ 1
EQS 112 Racehorse Riding Skills I .............................................. 4
EQS 113 Racehorse Riding Skills II ............................................ 4
EQS 130 Introduction to the Racing Industry ................................ 3
Total Credits ..................................................................... 22

Racehorse Care and Breaking – 0105073049
(Offers at BLC)

EQS 101 Introduction to the Thoroughbred .................................. 3
EQS 103 Racehorse Care .......................................................... 1
EQS 104 Racehorse Care Lab ...................................................... 3
EQS 299 Equine Co-op ............................................................. (3)
EQS 110 Basic Equine Physiology ................................................ 3
EQS 121 Introduction to Breaking and Training Racehorses .......... 1
EQS 123 Breaking and Prepping TwoYear Olds ......................... 3
EQS 125 Equine Nutrition .......................................................... 3
EQS 130 Introduction to the Racing Industry ................................ 3
Total Credits ..................................................................... 20

Equine Industry Workforce - 0105073039
(Offers at BLC)

EQS 101 Introduction to the Thoroughbred .................................. 3
EQS 103 Racehorse Care .......................................................... 1
EQS 104 Racehorse Care Lab OR .............................................. 3
EQS 299 Equine Co-op ............................................................. (3)
EQS 110 Basic Equine Physiology ................................................ 3
EQS 130 Introduction to the Racing Industry ................................ 3
EQS 200 Lameness in Racehorses .............................................. 3
Total Credits ..................................................................... 16

Veterinary Assistant - 0105073059
(Offers at BLC)

ENG 101 Writing I ........................................................................ 3
ENG 103 Racehorse Care .......................................................... 1
ENG 104 Racehorse Care Lab ...................................................... 3
ENG 299 Equine Co-op ............................................................. (3)
CHE 112 Introduction to Biology ................................................ 3
CHE 140 Introductory General Chemistry ................................... 3
CHE 145 Introductory General Chemistry Lab ......................... 1
COM 181 Basic Public Speaking ................................................ 3
MAT 116 Technical Mathematics ............................................. 3
AGR 240 Introduction to Animal Science ................................... 3
EQS 103 Racehorse Care .......................................................... 1
EQS 104 Racehorse Care Lab ...................................................... 3
EQS 110 Basic Equine Physiology ................................................ 3
EQS 299 Equine Co-op ............................................................. (1)
Total Credits ..................................................................... 27

151
Exercise Science

The Personal Trainer Certificate Program is comprised of American Council on Exercise (ACE) curricula, and will provide real-world experiences, skills, and knowledge needed to assess, design, and implement a personalized exercise program for clients. Graduates are eligible to take the ACE Personal Trainer Exam to become ACE-certified personal trainers.

Certificate

Personal Trainer – 5109993029
(Offered at BSC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
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<tr>
<td>CPR 100</td>
<td>CPR for the Healthcare Professional</td>
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<tr>
<td>SFA 100</td>
<td>Safety and First Aid</td>
</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management OR</td>
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<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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<tr>
<td>MSG 100</td>
<td>Musculoskeletal Anatomy and Physiology OR</td>
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<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
</tr>
<tr>
<td>KHP 150</td>
<td>Personal Health Behavior</td>
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<tr>
<td>KHP 160</td>
<td>Personal Nutrition and Fitness</td>
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<tr>
<td>KHP 225</td>
<td>Exercise Techniques and Physical Training</td>
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<tr>
<td>KHP 235</td>
<td>Personal Trainer Practicum</td>
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<td>Total Credits</td>
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</table>

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>
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<tr>
<th>Course</th>
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<tr>
<td>SPA 101</td>
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<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
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<tr>
<td>OST 235</td>
<td>Business Communication Technology OR</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance OR</td>
</tr>
<tr>
<td>BAS 294</td>
<td>Money and Financial Institutions</td>
</tr>
<tr>
<td>Total Credits</td>
<td>13</td>
</tr>
</tbody>
</table>

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, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

General Education:

<table>
<thead>
<tr>
<th>Area</th>
<th>Courses</th>
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<tbody>
<tr>
<td>1</td>
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<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
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Technical Courses:

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<th>Credits</th>
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<tbody>
<tr>
<td>FRS 101</td>
<td>Introduction to Fire Service</td>
</tr>
<tr>
<td>FRS 102</td>
<td>Firefighters Basic Skills I</td>
</tr>
<tr>
<td>FRS 103</td>
<td>Firefighters Basic Skills II</td>
</tr>
<tr>
<td>FRS 104</td>
<td>Firefighters Intermediate Skills I</td>
</tr>
<tr>
<td>FRS 105</td>
<td>Firefighters Intermediate Skills II</td>
</tr>
<tr>
<td>FRS 201</td>
<td>Firefighters Advanced Skills I</td>
</tr>
<tr>
<td>FRS 202</td>
<td>Firefighters Advanced Skills II</td>
</tr>
<tr>
<td>FRS 203</td>
<td>Firefighters Advanced Skills III</td>
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<tr>
<td>FRS 204</td>
<td>EMT First Responder</td>
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<tr>
<td>FRS 205</td>
<td>Fire Officer I</td>
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<td>FRS 206</td>
<td>Fire Officer II</td>
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<td>FRS 207</td>
<td>Fire Officer III</td>
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</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, ELC, GTW, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

General Education:

<table>
<thead>
<tr>
<th>Area</th>
<th>Courses</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Written Communication, Oral Communications, or Humanities/Heritage</td>
</tr>
<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
</tr>
<tr>
<td>Subtotal</td>
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</tbody>
</table>
Academic Curricula

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.

Certificate

Basic Firefighter - 4302033019

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

FRS 101 Introduction to Fire Service ........................................... 3
FRS 102 Firefighters Basic Skills I ............................................. 3
FRS 103 Firefighters Basic Skills II ........................................... 3
FRS 104 Firefighters Intermediate Skills I ................................. 3
FRS 105 Firefighters Intermediate Skills II ................................. 3

Total Credits 12

NOTE: All FRS courses are available in modules; see course description section.

Advanced Firefighter - 4302033029

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

FRS 101 Introduction to Fire Service ........................................... 3
FRS 102 Firefighters Basic Skills I ............................................. 3
FRS 103 Firefighters Basic Skills II ........................................... 3
FRS 104 Firefighters Intermediate Skills I ................................. 3
FRS 105 Firefighters Intermediate Skills II ................................. 3
FRS 201 Firefighters Advanced Skills I ....................................... 3
FRS 202 Firefighters Advanced Skills II ....................................... 3
FRS 203 Firefighters Advanced Skills III ..................................... 3

Total Credits 24

NOTE: All FRS courses are available in modules; see course description section.

Fire Officer - 4302033039

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

FRS 2051 Fire Prevention, Public Education and Fire Cause Determination II .................................................. 0.5
FRS 2052 Firefighter Survival and Rescue ....................................... 1.1
FRS 2053 Hazardous Materials Technician .................................... 3.4
FRS 2062 Managing Company Tactical Operations: Decision Making ............................................................. 1.0
FRS 2063 Instructional Techniques for Company Officers ............... 1.0
FRS 2071 Company Officer .......................................................... 3.5
FRS 2072 Incident Command System (ICS) .................................. 0.9
FRS 2073 Leadership I: Strategies for Company Success ............ 0.8
FRS 2074 Fire/Arson Detection (Arson I) ....................................... 0.8

Total Credits 13

NOTE: All FRS courses are available in modules; see course description section.

Emergency Medical Technician - 5109042010

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

FRS 2061 Emergency Medical Technician OR ................................ 6
EMS 105 Emergency Medical Technician ..................................... 6

Total Credits 6

NOTE: Contact faculty concerning pre-requisites.
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

**Global Studies**

The Associate of Applied Science Degree in Global Studies (Transfer) is designed to prepare students to be more globally aware and globally literate employees and citizens of the Commonwealth of Kentucky, the United States, and the world. It exposes students to a diverse set of courses and competencies which will prepare them to live and work in settings with diverse ethnic and cultural populations and to function more effectively as members of an increasingly interconnected world.

**Associate in Applied Science**

Global Studies - 3020017019

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing II AND</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 105</td>
<td>Writing: An Accelerated Course¹ and</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics¹ OR</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra¹</td>
<td>3</td>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>COM 254</td>
<td>Introduction to Intercultural Communication¹</td>
<td>3</td>
</tr>
<tr>
<td>GBS 290</td>
<td>Global Studies Capstone Course</td>
<td>3</td>
</tr>
</tbody>
</table>

4 Select from Global Studies Heritage list.
5 Select from Global Studies Natural Science list.
6 Select from Global Studies Social Interaction list.

**Certificate**

Global Studies - 3020013010

(Offered at ELC, JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 254</td>
<td>Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global Studies Heritage¹</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Global Studies Humanities/Fine Arts¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Global Studies Natural Science/Business¹</td>
<td>3</td>
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</tr>
<tr>
<td>Global Studies Social Interaction¹</td>
<td>3</td>
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</tr>
</tbody>
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Total 19

2 Select from Global Studies Humanities/Fine Arts list.
4 Select from Global Studies Heritage list.
5 Select from Global Studies Natural Science list.
6 Select from Global Studies Social Interaction list.

**Health Care Foundations**

This certificate will prepare entry-level health care workers with basic health care knowledge and skills in the areas of health care delivery and management, health care communication, basic skills I & II, pharmacology, clinical pathophysiology and medical terminology.

**Certificate**

Health Care Foundations-Basic - 5139023209

(Offered at ASC, JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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</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>
<td>3</td>
</tr>
<tr>
<td>HST 123</td>
<td>Health Care Basic Skills II</td>
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Subtotal 11-11.5

Health Care Foundations-Intermediate - 5139023219

(Offered at ASC, JFC)

<table>
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<td>Health Care Basic Skills I OR</td>
<td>3</td>
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<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical</td>
<td>3</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>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HST 121</td>
<td>Pharmacology</td>
<td>2</td>
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<tr>
<td>HST 122</td>
<td>Clinical Pathophysiology</td>
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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
(Offered at HZC)

Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Lab</td>
<td>4</td>
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</table>

Subtotal 10

Practice Workflow/Redesign Specialist Track – 510707301
(Offered at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>HCS 110</td>
<td>Culture of Healthcare</td>
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<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>
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<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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Total 19

Clinician/Practitioner Consultant Track – 510707302
(Offered at HZC)

<table>
<thead>
<tr>
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<th>Title</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>
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<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
<td>1</td>
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Total 18

Implementation Manager Track – 510707303
(Offered at HZC)

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<tbody>
<tr>
<td>HCS 110</td>
<td>Culture of Healthcare</td>
<td>1</td>
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<tr>
<td>HCS 125</td>
<td>History in Healthcare</td>
<td>1</td>
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<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>
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<tr>
<td>HCS 280</td>
<td>Project Management &amp; Teams</td>
<td>1</td>
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<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>
<td>1</td>
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</table>

Total 18

Technical Software Support Specialist Track – 510707304
(Offered at HZC)

<table>
<thead>
<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 HIT 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>
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<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
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</table>

Total 20

Implementation Support Specialist Track – 510707305
(Offered at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<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 HIT Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 230</td>
<td>Vendor Specific Systems</td>
<td>2</td>
</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
<td>1</td>
</tr>
</tbody>
</table>

Total 19

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 Program at Jefferson Community and Technical College is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). Additional information may be found at CAHIIM’s website URL: http://cahiim.org.

Associate in Applied Science

Health Information Technology - 510777019
(Offered at BLC, GTW, HZC, JFC)

General Education Requirements:

<table>
<thead>
<tr>
<th>Code</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>BIO 135</td>
<td>Human Anatomy and Physiology [with laboratory]</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
<td>(4)</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>(3)</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>(3)</td>
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<tr>
<td>Heritage/Humanities</td>
<td>3</td>
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Subtotal 16-20
Technical Course Requirements:

CTT 105 Introduction to Computers OR ........................................... 3
OST 105 Introduction to Information Systems ..................................... (3)
CLA 131 Medical Terminology from Greek or Latin OR ......................... 3
MIT 103 Medical Office Terminology OR ......................................... (3)
AHS 115 Medical Terminology ....................................................... (3)
HIT 100 Introduction to Health Information Technology ......................... 3
HIT 105 Patho/Pharm for Health Information Professionals ...................... 4
CIT 130 Productivity Software OR ................................................... 3
OST 240 Software Integration ......................................................... (3)
HIT 109 Clinical Classification Systems I ........................................... 4
HIT 110 Legal/Ethical Issues in Health Information .................................. 2
HIT 112 Reimbursement Methodologies ............................................. 3
HIT 200 Information Systems in Healthcare ....................................... 3
HIT 202 Clinical Classification Systems II ......................................... 3
HIT 205 Performance Improvement in Health Information ......................... 3
HIT 207 Clinical Classification Systems III ........................................... 3
HIT 211 Health Care Management & Statistics .................................... 3
HIT 215 Clinical Practicum OR ....................................................... 4
HIT 2151 Clinical Practicum I AND .................................................. (2)
HIT 2152 Clinical Practicum II ....................................................... (2)
Subtotal ...................................................................................... 44
Total Credits ............................................................................. 60-64

NOTE: BIO 137 and BIO 139 are required at JCTC.

Certificate

HIT Coding- 5107073089

(Offered at BLC, GTW, HZC, JFC)

CLA 131 Medical Terminology from Greek or Latin OR ......................... 3
MIT 103 Medical Office Terminology OR ......................................... (3)
AHS 115 Medical Terminology ....................................................... (3)
BIO 135 Human Anatomy and Physiology with laboratory OR ............... 4
BIO 137 Human Anatomy and Physiology I AND ................................. (4)
BIO 139 Human Anatomy and Physiology II ...................................... (4)
HIT 100 Introduction to Health Information Technology ......................... 3
HIT 105 Patho/Pharm for Health Information Professionals ...................... 4
HIT 109 Clinical Classification Systems I ........................................... 4
HIT 110 Legal/Ethical Issues in Health Information .................................. 2
HIT 112 Reimbursement Methodologies ............................................. 3
HIT 202 Clinical Classification Systems II ......................................... 3
HIT 207 Clinical Classification Systems III ........................................... 3
HIT 215 Clinical Practicum .............................................................. 4
Subtotal ...................................................................................... 33-37

Release of Information Data Specialist – 5107073099

(Offered at BLC, GTW, HZC, JFC)

HIT 100 Introduction to Health Information Technology ......................... 3
HIT 110 Legal/Ethical Issues in Health Information .................................. 2
BIO 135 Human Anatomy and Physiology with laboratory OR ............... 4
BIO 137 Human Anatomy and Physiology I AND ................................. (4)
BIO 139 Human Anatomy & Physiology II .......................................... (4)
CLA 131 Medical Terminology from Greek or Latin OR ......................... 3
MIT 103 Medical Office Terminology OR ......................................... (3)
AHS 115 Medical Terminology ....................................................... (3)
Subtotal ...................................................................................... 12-16

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 who is looking to broaden their skills for career enhancement. Graduates will possess marketable skills for direct services as well as the foundation to understand current healthcare delivery. Many of the general education and core courses 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, ELC, HPC, JFC, MDC, WKC)

General Education

MAT 150 College Algebra and Functions OR ....................................... 3
MAT 110 Applied Math ...................................................................... (3)
ENG 101 Writing I ............................................................................ 3
FYE 105 Achieving Academic Success .............................................. 3
BIO 135 Basic Human Anatomy OR .............................................. 4
BIO 137 Human Anatomy & Physiology I AND ................................. (4)
BIO 139 Human Anatomy & Physiology II ...................................... (4)
PSY 110 General Psychology .......................................................... 3
English and Communications ........................................................ 3

Technical Core:

CLA 131 Medical Terminology from Greek and Latin OR ....................... 3
AHS 115 Medical Terminology ....................................................... (3)
MIT 103 Medical Office Terminology ............................................... (3)
NAA 100 Nursing Assistant Skills I ................................................... 3
Digital Literacy# ........................................................................... 0-3
Health Science Technical Courses** ............................................... 29-30
Subtotal ...................................................................................... 35-39

Total .......................................................................................... 60-68

# Digital Literacy must be demonstrated by computer exam or successfully completing a digital literacy course.

** Health Science Technical Course selection must result in final attainment of a minimum of three (3) certificate credentials.

Students may be able to earn certificates that are already present in other curricula, including but not limited to:

Nursing Assistant
Advanced Nursing Assistant
Phlebotomy for the Healthcare Worker
Pharmacy Technician I
Medical Coding
Medical Office Radiology

Student may take the following courses to meet the required 60 credit hours needed for the Health Science Technology degree:

AHS 100 BIO 137 EFM 100 HST 122 PHY 172
AHS 105 BIO 139 HST 101 HST 123 PLW 130
AHS 115 BIO 225 HST 102 NAA 102 PLW 135
AHS 201 CIT 105 HST 101 OST 110 PLW 140
AHS 203 COM 181 HST 104 PHY 152 TEC 200
BAS 120 COM 252 HST 121 PHY 171 WPP 200
Healthcare Facilities Leadership

The Healthcare Facilities Leadership program prepares students for a highly innovative and rapidly changing professional career as a Healthcare Facilities Leader/Manager. Students receive an education in office and hospital procedures, client relations and communications, leadership, finances, energy management, public speaking, construction, infection control, maintenance operations, and codes and compliance. This knowledge can be used to gain employment locally, regionally, or nationally. Overall, the students in this program receive an education that provides marketable skills, preparing them to be employed in a high demand profession.

Associate in Applied Science

Healthcare Facilities Leadership – 5107997019

(Offered at OWC)

General Education Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>ENG 101</td>
<td>Writing I</td>
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<td>MAT 150</td>
<td>College Algebra or Higher Level Quantitative Reasoning Course</td>
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<td>PHI 110</td>
<td>Medical Ethics</td>
<td>3</td>
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<td>HFL 100</td>
<td>Introduction to Healthcare Facility Management</td>
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</tr>
<tr>
<td>HFL 110</td>
<td>Introduction to Healthcare Industry</td>
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<tr>
<td>HFL 120</td>
<td>Infection Control and Prevention</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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<tr>
<td>HFL 150</td>
<td>Planning, Design, and Construction I</td>
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<td>ESP 101</td>
<td>Introduction to Energy Systems</td>
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<td>Maintenance and Operations II</td>
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<td>HFL 250</td>
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<td>BAS 287</td>
<td>Supervisory Management OR</td>
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<td>BAS 289</td>
<td>Operations Management</td>
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<td>BAS 291</td>
<td>Introduction to Financial Management</td>
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<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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<td>Digital Literacy or Elective</td>
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Total Credits 65-66

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, grading, back filling, clearing trees and rubble, and foundation excavating is provided as well as instruction in the proper care and maintenance of equipment.

Diploma

Operating Engineer - 4902024019

(Offered at HZC, SEC)

General Education:

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

Subtotal 6

Technical Courses:

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<th>Title</th>
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<td>ISX 100</td>
<td>Industrial Safety</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
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<tr>
<td>HEO 151</td>
<td>Heavy Equipment Operating I</td>
<td>6</td>
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<td>HEO 201</td>
<td>Heavy Equipment Operating II</td>
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<td>HEO 251</td>
<td>Heavy Equipment Operating III</td>
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<td>HEO 125</td>
<td>Special Problems I</td>
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<tr>
<td>HEO 225</td>
<td>Special Problems II</td>
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</table>

Total Technical Credits 29-32

Total Credits 35-38

Certificates

Backhoe Operator - 4902023069

(Offered at HZC, SEC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HEO 111</td>
<td>Preventive Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems I</td>
<td>3</td>
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</table>

Total Credits 12

Bulldozer Operator - 4902023029

(Offered at HZC, SEC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HEO 111</td>
<td>Preventive Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems I</td>
<td>3</td>
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</tbody>
</table>

Total Credits 12
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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
<td>3</td>
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<tr>
<td>ACH 120</td>
<td>Theory and History of Architecture I</td>
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<tr>
<td>HIS 240</td>
<td>History of Kentucky</td>
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<tr>
<td>HPT 100</td>
<td>Introduction to Historic Preservation</td>
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<tr>
<td>HPT 101</td>
<td>Introduction to Historic Preservation Lab</td>
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<tr>
<td>ISX 100</td>
<td>Industrial Safety OR</td>
<td>3</td>
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<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>3</td>
</tr>
<tr>
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<td>Technical Electives*</td>
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<td></td>
<td><strong>Total</strong></td>
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</table>

*Technical Electives: Select a minimum of 8 credit hours

**Fire Science Track:**

This degree track includes fire department organization, fire behavior, firefighter safety, personal protective equipment, portable fire extinguishers, fire hose, appliance and streams.

**Criminal Justice Track:**

This criminal justice degree track prepares the student for entry into the field of police work and related occupations. Criminal justice vocations have evolved from jobs with minimal requirements to jobs requiring complex knowledge and skills. This curriculum gives the student theory, principles, and techniques employed by criminal justice agencies and police units. The study of the law as it relates to criminal justice agencies, human behavior, government, and communications along with specialized course work comprise the curriculum.

**Security Management Track:**

The Security Management Coordinator degree track provides a comprehensive overview of physical security policies, procedures and techniques. Topics covered are perimeter protection, intrusion detection, access control, CCTV, security design and surveys, contingency planning, and acts of violence.

**Homeland Security/Emergency Management Specialist Certificate:**

This certificate program includes an overview of homeland security, emergency management and first responder agencies, including but not limited to: fire departments, law enforcement and emergency medical services and how these agencies function within the National Incident Management System.

Progression in the program is contingent upon achievement of a grade of “C” or better in each technical course for all program tracks above.

**Associate in Applied Science**

**Homeland Security/Emergency Management - 4399997019**

(Offered at WKC)

**General Education Core**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>HSM 100</td>
<td>Introduction to Homeland Security</td>
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<tr>
<td>HSM 110</td>
<td>Introduction to Emergency Management</td>
<td>3</td>
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<tr>
<td>CRJ 110</td>
<td>Principles of Asset Protection AND</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 210</td>
<td>Physical Security Technology &amp; Systems OR</td>
<td>3</td>
</tr>
<tr>
<td>LSI 120</td>
<td>Comprehensive Security Specialist AND</td>
<td>4</td>
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<tr>
<td>LSI 146</td>
<td>Crisis Management/Contingency Planning</td>
<td>2</td>
</tr>
<tr>
<td>HSM 225</td>
<td>Issues and Ethics in Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>AHS 140</td>
<td>Introduction to Public and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td>3</td>
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<tr>
<td>FRS 101</td>
<td>Introduction to Fire Science</td>
<td>3</td>
</tr>
<tr>
<td>FRS 2061</td>
<td>Emergency Medical Technician</td>
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</table>

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

**Technical Core Subtotal**

30-33
## Fire Science Track - 439999701
(Offered at WKC)

- **FRS 102** Firefighter Basic Skills I ........................................ 3
- **FRS 103** Firefighter Basic Skills II ........................................ 3
- **FRS 104** Firefighter Intermediate Skills I ................................ 3
- **FRS 105** Firefighters Intermediate Skills II ............................. 3
- **FRS 201** Firefighters Advanced Skills I .................................. 3
- **Fire Science Track Subtotal................................. 15

### Fire Science Track Total
Degree Requirements 63-66

## Criminal Justice Track - 439999702
(Offered at WKC)

- **CRJ 100** Introduction to Criminal Justice ................................ 3
- **CRJ 204** Criminal Investigations ........................................... 3
- **CRJ 215** Introduction to Law Enforcement .................................. 3
- **CRJ 217** Criminal Procedures .............................................. 3
- **CRJ 279** Terrorism and Political Violence .................................. 3
- **Criminal Justice Track Subtotal............................. 15

### Criminal Justice Track Total
Degree Requirements 63-66

## Security Management Track - 439999703

- **LSI 140** Managing Terrorism & Other Crises .............................. 1
- **LSI 150** Professional Locksmithing .......................................... 4
- **Electives..................................................... 10

A minimum of 3 credit hours must be taken from this list of electives:

- **LSI 130** GSA: Locks, Vaults & Containers .................................. 4
- **LSI 131** GSA: Locks, Vaults & Containers Certified Inspector Training ........................................... 1
- **LSI 151** Basic Safe Penetration .............................................. 1
- **LSI 152** Combination Lock Manipulation ..................................... 1
- **LSI 153** Safe Lock Servicing – Mechanical and Electronic ............ 2
- **LSI 160** Fundamentals of Electricity .......................................... 2
- **LSI 170** Electronic Access Control ........................................... 2
- **LSI 195** Tactical Lock (restricted enrollment) ............................. 8
- **Security Management Track Subtotal.............................. 15

### Security Management Track Total
Degree Requirements 63-66

## Homeland Security/Emergency Management Specialist - 4399993019
(Offered at JFC, WKC)

- **HSM 100** Introduction to Homeland Security ................................ 3
- **HSM 110** Introduction to Emergency Management .................................. 3
- **CRJ 110** Principles of Asset Protection OR ................................ 3
- **CRJ 210** Physical Security Technology & Systems OR ................... 3
- **LSI 120** Comprehensive Security Specialist .................................. 4
- **LSI 146** Crisis Management/Contingency Planning ...................... (2)
- **HSM 225** Issues and Ethics in Homeland Security ................................... 3
- **AHS 140** Introduction to Public and Community Health ................ 3
- **BAS 212** Introduction to Financial Management ................................ 3
- **FRS 101** Introduction to Fire Science .......................................... 3
- **FRS 2061** Emergency Medical Technician .................................... 6
- **HSEM Specialist Certificate............................................. 30

### Homeland Security/Emergency Management Specialist Total
Degree Requirements 63-66

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**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

**Technical Core:**
- Computer/Digital Literacy * ........................................ 0-3
- **HRT 110** Nursery Management ........................................ 4
- **HRT 120** Turf Management OR ........................................ 4
- **HRT 160** Retail Floral Design AND ...................................... (4)
- **HRT 161** Retail Floral Design Lab ..................................... (2)
- **HRT 130** Landscape Maintenance ....................................... 3
- **HRT 131** Landscape Maintenance Lab ................................... 2
- **HRT 150** Horticulture Business Management .......................... 3
- **HRT 210** Landscape Design .............................................. 4
- **HRT 240** Greenhouse Management ....................................... 4
- **HRT 241** Greenhouse Management Lab .................................. 2

**Subtotal............................................. 26-31

**Total Science/Track Credits............................................. 63-68

#### Science Track - 010601701

- **COE 199** Cooperative Education OR ....................................... 3
- **COED 198** Practicum .................................................... (3)
- **HRT 104** Introduction to Herbaceous Plants ................................ 4
- **HRT 108** Introduction to Woody Plants ................................... 4
- **Electives (Horticulture Course List including COE198)............... 8

**Subtotal............................................. 22

**Total Science/Track Credits............................................. 63-68

#### Business Track - 010601702

- **COE 199** Cooperative Education OR ....................................... 2
- **ACT 101** Fundamentals of Accounting .................................... (2)
- **BAS 200** Small Business Management ..................................... 3
- **BAS 215** Office Procedures ............................................... 3
- **BAS 267** Introduction to Business Law .................................... 3
- **Electives (Horticulture Course List including COE198)............... 3

**Subtotal............................................. 20

**Total Business Track Credits............................................. 61-66

#### Diploma

**Landscape Technology - 0106014009

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

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

---

**Academic Curricula**

- **Landscape Technology - 0106014009**
  - **Academic Curricula**
  - **Associate in Applied Science**
- **Horticulture - 0106017019**
  - **General Education**
  - **Technical Core**
  - **Total Science/Track Credits**
- **Science Track - 010601701**
  - **General Education**
  - **Technical Core**
  - **Total Science/Track Credits**
- **Business Track - 010601702**
  - **General Education**
  - **Total Business Track Credits**
- **Diploma**
  - **Landscape Technology - 0106014009**
  - **General Education**

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159
### Technical:

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<td>HRT 104</td>
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<td>HRT 108</td>
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<td>HRT 131</td>
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*If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.

### General Education:

**Area 1**
- Written Communication, Oral Communications, or Heritage/Humanities .................................. 3
- Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning .................................. 3

**Area 2**
- Written Communication, Oral Communications, or Heritage/Humanities .................................. 3
- Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning .................................. 3

*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)

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<td>HRT 104</td>
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<tr>
<td>HRT 130</td>
<td>3</td>
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### Horticulture Sales - 0106013119

(Offered at MYC)

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</tr>
<tr>
<td>HRT 104</td>
<td>4</td>
</tr>
<tr>
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### Landscape Installation - 0106013049

(Offered at MYC)

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### Landscape Planning - 0106013059

(Offered at MYC)

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### Lawn Maintenance - 0106013069

(Offered at MYC)

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### Nursery Production - 0106013079

(Offered at MYC)

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<td>HRT 110</td>
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### Nursery Operations - 0106013089

(Offered at MYC)

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<tr>
<td>HRT 110</td>
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### Certificates

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<tr>
<td>Greenhouse Production</td>
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### Human Services

This program prepares individuals for entry level positions in agencies and institutions which provide social, community, educational, and mental health services. The curriculum provides an opportunity for the student to develop the knowledge and skills necessary for entry level employment. Included in the curriculum is a core of human services courses, general education courses, and technical courses with a specific human services emphasis. Application of human services principles and skills is provided through a clinical experience in an appropriate setting.
Upon completion of the program the graduate is prepared to seek employment in various areas which may include child care facilities, mental health settings, chemical dependency settings, hospitals, educational institutions, correctional facilities, geriatric settings, child and youth centers, and social service agencies.

Students obtain a “C” or better in all core classes (HMS 101, HMS 102, HMS 103, HMS 104 and (HMS 249 OR HMS250) and also in the two technical courses that have been selected to complete the core requirements.

**Associate in Applied Science**

**Human Services- 4400007000**

*(Offered at BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, OWC)*

### General Education:

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<th>Code</th>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<td>ENG 102</td>
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<td>PSY 110</td>
<td>General Psychology</td>
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<td>PSY 223</td>
<td>Developmental Psychology</td>
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<td>SOC 101</td>
<td>Introduction to Sociology</td>
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<td>Heritage/Humanities course</td>
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<td>Quantitative Reasoning course</td>
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**Technical Core:**

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<td>Introduction to Computers OR</td>
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<tr>
<td>HMS 101</td>
<td>Human Services Survey</td>
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<tr>
<td>HMS 102</td>
<td>Values of Human Services in a Contemporary Society</td>
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<tr>
<td>HMS 103</td>
<td>Theories and Techniques in Human Services</td>
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<td>HMS 104</td>
<td>Group Dynamics for Human Services</td>
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<tr>
<td>HMS 249</td>
<td>Foundational Skills in Para-Professional Practice OR</td>
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<td>HMS 250</td>
<td>Clinical Practice in Human Services OR</td>
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<td>COE 199</td>
<td>Cooperative Education</td>
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**Total Credits**

### Technical Courses: Choose six hours

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<tr>
<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
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</tr>
<tr>
<td>EDP 203</td>
<td>Teaching Exceptional Learners in Regular Classrooms</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>Introduction to Family Science</td>
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</tr>
<tr>
<td>FAM 253</td>
<td>Human Sexuality: Development, Behavior and Attitudes</td>
<td>3</td>
</tr>
<tr>
<td>HMS 210</td>
<td>Drugs, Society, and Human Behavior</td>
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<tr>
<td>HMS/SWK 275</td>
<td>Introduction to Mental Retardation</td>
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<tr>
<td>HMS/SWK 200</td>
<td>Dynamics of Human Behavior</td>
<td>3</td>
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<tr>
<td>HMS/SWK 211/255</td>
<td>Introduction to Addictions</td>
<td>3</td>
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<tr>
<td>HMS/SWK 212/260</td>
<td>Crisis Intervention</td>
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<tr>
<td>HMS/SWK 235/250</td>
<td>Cultural Diversity in Human Services</td>
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<tr>
<td>HMS 245</td>
<td>Psychiatric Mental Health Technician</td>
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<tr>
<td>HMS 265</td>
<td>Working with Disabilities in Human Services</td>
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</tr>
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<td>HMS 299</td>
<td>Special Topics in Human Services</td>
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<td>IEC 130</td>
<td>Early Childhood Development</td>
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<td>IEC 200</td>
<td>Child Guidance</td>
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<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
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<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
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<td>Human Relations</td>
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<td>PSY 185</td>
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<td>The Community</td>
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<td>SWK 124</td>
<td>Introduction to Social Services</td>
<td>3</td>
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<tr>
<td>SWK 222</td>
<td>Development of Social Welfare</td>
<td>3</td>
</tr>
<tr>
<td>SWK 180</td>
<td>Introduction to Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>SWK 269</td>
<td>Juvenile Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>SWK 270</td>
<td>Corrections</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>The Family</td>
<td>3</td>
</tr>
<tr>
<td>SWK 276</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>SWK 280</td>
<td>Methods of Working with the Aged</td>
<td>3</td>
</tr>
<tr>
<td>SWK 281</td>
<td>Psychology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>Murray State University Courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWK 120</td>
<td>Group Preparation and Selection for Foster and Adoptive Parents</td>
<td>3</td>
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<tr>
<td>SWK 121</td>
<td>Child Sexual Abuse for Foster and Adoptive Parents</td>
<td>2</td>
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<tr>
<td>Eastern Kentucky University Courses:</td>
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<tr>
<td>COR 106</td>
<td>Foundations of Youth Work</td>
<td>3</td>
</tr>
<tr>
<td>COR 423*</td>
<td>Reclaiming Our Prodigal Sons and Daughters</td>
<td>3</td>
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<tr>
<td>COR 423*</td>
<td>Life Space Crisis Intervention</td>
<td>3</td>
</tr>
<tr>
<td>* Special Topics course at EKU; different section numbers indicate different topic content</td>
<td></td>
<td></td>
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<td>Eastern Kentucky University Courses:</td>
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<tr>
<td>SWK 106</td>
<td>Food Benefits</td>
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### Certificates

**Direct Support Work - 4400003039**

*(Offered at BLC, BSC, ELC, GTW, HPC, HZC, JFC, OWC, MDC)*

Available Completely Online

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HMS 102</td>
<td>Values of Human Services in a Contemporary Society</td>
<td>3</td>
</tr>
<tr>
<td>HMS 265</td>
<td>Working with Disabilities in Human Services</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>
<tr>
<td>SWK 275</td>
<td>The Family OR</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>Introduction of Family Science</td>
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**Electives – choose one course from the following list:**

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<th>Course Title</th>
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<tbody>
<tr>
<td>HMS/SWK 235/250</td>
<td>Teaching Persons with Mental Retardation</td>
<td>3</td>
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<tr>
<td>SWK 180</td>
<td>Introduction to Gerontology</td>
<td>3</td>
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<tr>
<td>PSY 230</td>
<td>Psychosocial Aspects of Death and Dying</td>
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<tr>
<td>HMS/SWK 200</td>
<td>Dynamics of Human Behavior</td>
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**Total Credits**

### Aging Services – 4400003049

*(Offered at BSC, ELC, GTW, HPC, HZC, MDC, OWC)*

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<tbody>
<tr>
<td>HMS 102</td>
<td>Values of Human Services in a Contemporary Society</td>
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</tr>
<tr>
<td>HMS 265</td>
<td>Working with Disabilities in Human Services</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>
<tr>
<td>SWK 275</td>
<td>The Family OR</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>Introduction of Family Science</td>
<td>3</td>
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**Total Credits**

### Substance Abuse Recovery Coach – 4400003059

*(Offered at BSC, ELC, GTW, HPC, HZC, MDC, OWC)*

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<tr>
<td>HMS 101</td>
<td>Human Services Survey</td>
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</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 210</td>
<td>Drugs, Society, and Human Behavior</td>
<td>3</td>
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<tr>
<td>HMS/SWK 211/255</td>
<td>Introduction to Addictions</td>
<td>3</td>
</tr>
<tr>
<td>HMS/SWK 212/260</td>
<td>Crisis Intervention</td>
<td>3</td>
</tr>
<tr>
<td>HMS/SWK 235/250</td>
<td>Cultural Diversity in Human Services</td>
<td>3</td>
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<tr>
<td>HMS 245</td>
<td>Psychiatric Mental Health Technician</td>
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<td>HMS 265</td>
<td>Working with Disabilities in Human Services</td>
<td>3</td>
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<tr>
<td>HMS 299</td>
<td>Special Topics in Human Services</td>
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<tr>
<td>IEC 130</td>
<td>Early Childhood Development</td>
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<td>IEC 200</td>
<td>Child Guidance</td>
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<td>Medicaid Nurse Aide OR</td>
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<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
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<td>PSY 180</td>
<td>Human Relations</td>
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<td>PSY 185</td>
<td>Human Potential</td>
<td>3</td>
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<td>PSY 230</td>
<td>Psychosocial Aspects of Death and Dying</td>
<td>3</td>
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<tr>
<td>SED 110</td>
<td>Orientation to Interpreting for the Deaf</td>
<td>3</td>
</tr>
<tr>
<td>SED 101</td>
<td>American Sign Language I</td>
<td>3</td>
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**Total Credits**

161 Academic Curricula
Psychiatric Mental Health Technician – 4400003069

(Offers at BSC, ELC, GTH, HZC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
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<tbody>
<tr>
<td>HMS 101</td>
<td>Human Services Survey</td>
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<tr>
<td>HMS 102</td>
<td>Value 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>
</tr>
<tr>
<td>HMS 210</td>
<td>Drugs, Society and Human Behavior</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>The Family</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>
<tr>
<td>HMS 245</td>
<td>Psychiatric Mental Health Technician</td>
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<tr>
<td></td>
<td>Technical Elective from approved list</td>
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Total Credits: 27

Technical Electives:
- HMS/SWK 211/235 Introduction to Addictions
- HMS/SWK 212/260 Crisis Intervention
- HMS/SWK 2300 Dynamics of Human Behavior
- HMS/SWK 2320 Cultural Diversity in Human Services
- HMS 265 Working with Disabilities in Human Services
- SWK 180 Introduction to Gerontology
- SWK 276 Criminology
- SWK 281 Psychology of Aging

Total Credits: 27

Industrial Chemical Technology

This program is designed based on North American Process Technician Alliance (NAPTA) principles for process technicians. Basic knowledge in the areas of environmental health and safety, quality control, chemistry, process equipment, process operations, troubleshooting, and workplace skills helps ensure graduates enter the workforce with the fundamentals in operations of a modern chemical facility.

Associate in Applied Science

Industrial Chemical Technology – 4103017019
(Offers at JFC)

General Education

<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>
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<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry</td>
<td>3</td>
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<tr>
<td>CHE 145</td>
<td>Introductory General Chemistry Lab</td>
<td>1</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3</td>
<td></td>
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<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
<td></td>
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<tr>
<td>Heritage/Humanities</td>
<td>3</td>
<td></td>
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<tr>
<td>Digital Literacy or demonstrated competency</td>
<td>0-3</td>
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<tr>
<td>AET 110</td>
<td>Introduction to Circuit Analysis</td>
<td>4</td>
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<tr>
<td>APT 142</td>
<td>Instrumentation</td>
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<tr>
<td>ICT 186</td>
<td>Introduction to Process Technology</td>
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<tr>
<td>ICT 192</td>
<td>Process Technology Equipment</td>
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<td>ICT 194</td>
<td>Process Technology Systems</td>
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</tr>
<tr>
<td>ICT 196</td>
<td>Process Technology Operations</td>
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<td>ICT 200</td>
<td>Process Troubleshooting</td>
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<tr>
<td>ICT 230</td>
<td>Health, Safety, &amp; Environmental Practices OR</td>
<td>3</td>
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<td>Introduction to Industrial Safety</td>
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<td>ICT 280</td>
<td>Capstone in Industrial Chemical Technology</td>
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<tr>
<td>ITE 250</td>
<td>Team Dynamics and Problem Solving</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>PHY 171</td>
<td>Applied Physics OR</td>
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<tr>
<td>PHY 152</td>
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<td>PHY 162</td>
<td>Introductory Physics II Lab</td>
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<td>ELT 295</td>
<td>Independent Problems OR</td>
<td>1-2</td>
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<tr>
<td>COE 199</td>
<td>Co-operative Education</td>
<td>(1-4)</td>
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</table>

Total: 61-67

Information Management and Design

The Information Management & Design program prepares students for careers in various industries utilizing cutting-edge technology within video game design, graphic design, web design, and library professions. Students will specialize their degree from a choice of four tracks.

The Graphic Design track provides the concepts and skills needed to create and produce design projects such as brochures, flyers, newsletters, logos, product packaging, photo restorations and manipulations, multimedia presentations, simple illustrations, and web sites using industry-standard techniques and graphic design applications.

The Web Design track provides the concepts and skills needed to create and produce web sites using industry-standard techniques using graphic and web design, and video editing applications. The Web Design track graduates will have the ability to create and maintain professional sites and also be capable of working with other web professionals such as programmers, network administrators and database administrators as well as interfacing with management and clients.

The Library and Information Technology track prepares students for paraprofessional library work.

The IMD 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.

The courses within the Graphic and Web Design options will assist with preparation for Adobe Certifications and the Certified Internet Webmaster (CIW) certification exam. The Library and Information Technology option courses may be used to meet Kentucky public library certification requirements.

The IMD program also offers two certificates within the web and graphic design options. The web and graphic design certificates provide up-to-date training in current industry-standard software and trends for practitioners in the fields as well as introductory education for beginning students. In addition, the IMD program offers a certificate in Digital Video for students interested in film editing and cinematic arts.

Associate in Applied Science

Information Management and Design - 1108017019
(Offers at BLC)

General Education Courses

<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>
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<tr>
<td>ENG 102</td>
<td>Writing II*</td>
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</tr>
<tr>
<td>COE 199</td>
<td>Co-operative Education</td>
<td>(1-4)</td>
</tr>
<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></td>
</tr>
<tr>
<td>IMD 126</td>
<td>Introduction to Desktop Publishing</td>
<td></td>
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<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td></td>
</tr>
<tr>
<td>IMD 270</td>
<td>Professional Practices</td>
<td></td>
</tr>
<tr>
<td>IMD 275</td>
<td>Information Management &amp; Communications</td>
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</tr>
<tr>
<td>COE 199</td>
<td>Coop Education OR</td>
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<tr>
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<td>Internship</td>
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Subtotal: 21

Core Content:

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<th>Course</th>
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<th>Credits</th>
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<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 Management &amp; Communications</td>
<td>3</td>
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<tr>
<td>COE 199</td>
<td>Coop Education OR</td>
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<tr>
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Subtotal (General Education & Core Content): 39

*Satisfies General Education requirement for the AAS degree
### Graphic Design Track - 110801702

(Offered at BLC)

<table>
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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>
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<tr>
<td>IMD 180</td>
<td>Intermediate Web Design</td>
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<tr>
<td>IMD 226</td>
<td>Advanced Desktop Publishing</td>
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<tr>
<td>IMD 280</td>
<td>Portfolio Practicum: Graphic Design</td>
<td>3</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</td>
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**Subtotal**: 21

**Total**: 60

### Library & Information Technology Track - 110801704

(Offered at BLC)

**Available Completely Online**

<table>
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<th>Course</th>
<th>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>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</td>
<td>3</td>
</tr>
<tr>
<td>LIT 245</td>
<td>Library Services for Young Adults</td>
<td>3</td>
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<tr>
<td>LIT 247</td>
<td>Library Services for Adults</td>
<td>3</td>
</tr>
<tr>
<td>LIT 285</td>
<td>History of Libraries</td>
<td>3</td>
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<tr>
<td>LIN 175</td>
<td>Information Literacy</td>
<td>3</td>
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<tr>
<td>LIT 299</td>
<td>Selected Topics in Library Information Management</td>
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**Choice a total of 9 hours from the following:**

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<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>IMD 210</td>
<td>Microsoft Office Applications</td>
<td>3</td>
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<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>
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**Subtotal**: 21

**Total**: 60

### Web Design Track– 110801703

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>IMD 128</td>
<td>Raster Design with Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 180</td>
<td>Intermediate Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 230</td>
<td>Advanced Web Design</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 292</td>
<td>Portfolio Practicum: Web Design</td>
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<tr>
<td>IMD 293</td>
<td>Web Design Track Courses</td>
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**Choose from Web Design Track Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 127</td>
<td>Vector Design with Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>IMD 290</td>
<td>Photography</td>
<td>3</td>
</tr>
<tr>
<td>IMD 294</td>
<td>Seminar in Information Management &amp; Design Technologies</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>
<td>3</td>
</tr>
<tr>
<td>IMD 210</td>
<td>Microsoft Office Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIT 150</td>
<td>Internet Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CIT 120</td>
<td>Computational Thinking</td>
<td>3</td>
</tr>
<tr>
<td>CIT 140</td>
<td>JavaScript I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Other Web or Graphic Design Courses Approved by Program Coordinator**

**Subtotal**: 21

**Total**: 60

### Video Game Design Track– 110801705

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>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></td>
<td>Video Game Design Track Course</td>
<td></td>
</tr>
</tbody>
</table>

**Choose from Video Game Design Track Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
</tr>
<tr>
<td>IMD 128</td>
<td>Raster Design with Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 127</td>
<td>Vector Design with Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>IMD 210</td>
<td>Microsoft Office Applications</td>
<td>3</td>
</tr>
<tr>
<td>IMD 228</td>
<td>Advanced Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 294</td>
<td>Seminar in Information Management and Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 299</td>
<td>Selected Topics in Information Management and Design</td>
<td>3</td>
</tr>
<tr>
<td>MGT 282</td>
<td>Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>ENG 203</td>
<td>Business Writing</td>
<td></td>
</tr>
</tbody>
</table>

**Other Video Game Design Courses approved by Program Coordinator**

**Subtotal**: 21

**Total**: 60

### Certificate

**Library Information Technology - 1108013019**

(Offered at BLC)

The certificate in Library Information Technology prepares students for paraprofessional jobs in libraries. Upon completion of the academic certificate, students will be able to: perform basic library reference services using print and online sources, plan and produce library services and programs, demonstrate information literacy skills, describe the role of libraries as agencies for information services. Courses taken for the Certificate in Library Information Technology may be used for the Associate of Applied Science degree in Information Management and Design, Library Information Technology track and as electives for the AA/AS degrees. All Library Information Technology courses are web-based distance courses.

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</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>
</tr>
</tbody>
</table>

**Students will select one course from each of the following groups:**

1. **Library Procedures**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</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>
</tr>
</tbody>
</table>

2. **Library Services**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</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</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 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>LIT 280</td>
<td>Genealogy Services in Libraries</td>
<td></td>
</tr>
</tbody>
</table>
3. Library Information Technology Elective
LIT elective: any LIT course above LIT 115.................................. 3
Total 15

Graphic Design – 1108013029
(Ofﬁered at BLC)
IMD 115 Introduction to Graphic Design ........................................3
IMD 133 Beginning Web Design .................................................. 3
IMD 126 Introduction to Desktop Publishing ............................... 3
IMD 127 Vector Design with Adobe Illustrator .............................. 3
IMD 128 Raster Design with Adobe Photoshop ............................ 3
IMD 226 Advanced Desktop Publishing ...................................... 3
Total 18

Web Design – 1108013039
(Ofﬁered at BLC)
IMD 128 Raster Design with Photoshop ....................................... 3
IMD 133 Beginning Web Design .................................................. 3
IMD 180 Intermediate Web Design .......................................... 3
IMD 230 Advanced Web Design .................................................3
IMD 240 Multimedia Development for the Web ......................... 3
IMD 250 Digital Video Editing I .................................................. 3
Total 18

Digital Video – 1108013049
(Ofﬁered at BLC)
IMD 128 Raster Design with Adobe Photoshop ......................... 3
IMD 250 Digital Video Editing I .................................................. 3
IMD 255 Digital Video Editing II .................................................. 3
IMD 258 Visual Effects for Video .................................................3
Total 12

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
(Ofﬁered at JFC)
INS 100 Introduction to Insurance and Risk Management .............. 3
INS 181 Foundations of Insurance Production ............................ 3
INS 182 Multiple Lines Insurance Production ............................ 3
INS 183 Agency Operations and Sales Management ....................... 3
Total Credits 12

Integrated Engineering Technology
The Integrated Engineering Technology Program offers students the opportunity to build a career maintaining integrated manufacturing systems found in advanced manufacturing, with an emphasis on automotive manufacturing. The program leads students through a mechatronics approach to maintaining and troubleshooting highly-automated, complex manufacturing systems that include programmable logic controllers, robots, various types of drives, sensors, photoeyes, and electrohydraulics and 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
(Ofﬁered at BLC)
ENG 101 Writing I .........................................................................3
MAT 126 Technical Algebra and Trigonometry OR ................. 3
Higher Level Quantitative Reasoning Course ........................... 3
Social/Behavioral Sciences .................................................. 3
Heritage/Humanities .........................................................3
Natural Sciences .................................................................3
Oral Communications ..................................................... 3
Subtotal 18

Technical Courses:
Computer/Digital literacy .................................................. 3
IET 102 Preventive Maintenance ..............................................2
IET 104 Blueprint Reading/Schematics ........................................2
IET 107 Basic Electricity/Electronics ...........................................3
IET 108 Mechanical Drive Systems .......................................... 5
IET 109 Safety ........................................................................3
IET 110 Welding and Fabrication ............................................. 4
IET 120 Machine Tool Operations ............................................ 4
IET 201 Electrohydraulics/Pneumatics ..................................... 6
IET 203 Programmable Logic Controllers ................................. 5
IET 205 Robot Maintenance .................................................... 4
IET 206 Controls and Instrumentation ...................................... 5
Subtotal 46
Total Credits 64

Diploma
Integrated Engineering Technology – 1442014019
(Ofﬁered at BLC)
Area 1 = Written/Oral Communications, or Heritage/Humanities ... 3
Area 2 = Technical Algebra and Trigonometry OR ....................... 3
MAT 126 Higher Level Quantitative Reasoning Course .............. 3
Subtotal 6

Technical Courses:
Computer/Digital literacy .................................................. 3
IET 102 Preventive Maintenance ..............................................2
IET 104 Blueprint Reading/Schematics ........................................2
IET 107 Basic Electricity/Electronics ...........................................3
IET 108 Mechanical Drive Systems .......................................... 5
IET 109 Safety ........................................................................3
IET 110 Welding and Fabrication ............................................. 4
IET 120 Machine Tool Operations ............................................ 4
IET 201 Electrohydraulics/Pneumatics ..................................... 6
IET 203 Programmable Logic Controllers ................................. 5
IET 205 Robot Maintenance .................................................... 4
IET 206 Controls and Instrumentation ...................................... 5
COE 199 Cooperative Education OR ......................................... 1
COED 198 Practicum .............................................................. (1)
Subtotal 47
Total Credits 53

Certificate
Electrical Engineering Technology – 1442013029
(Ofﬁered at BLC)
IET 107 Basic Electricity/Electronics ...........................................3
IET 203 Programmable Logic Controllers ................................. 5
IET 205 Robot Maintenance .................................................... 4
IET 206 Controls and Instrumentation ...................................... 5
Total Credits 17
Interdisciplinary Early Childhood Education

The Interdisciplinary Early Childhood Education Program is designed to provide students an understanding of the cognitive, physical, social and emotional development for working with young children. Opportunities to apply this knowledge in practical experiences are incorporated in the curriculum. Curriculum topics include, but are not limited to, developmental ages and stages, health and safety, curriculum planning, assessment and family involvement. Employment opportunities are available in public and private preschools, early care educational settings, early intervention programs, Head Start, hospitals, campus child development centers, rehabilitation clinics and recreation centers.

Students must earn a “C” or higher in each of the IEC courses in order to graduate.

Associate in Applied Science

Interdisciplinary Early Childhood Education - 1907097019
(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SMC, WKC)

**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

**Total Credits** 21-22

**Technical Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>IEC 101</td>
<td>Orientation to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 102</td>
<td>Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 120</td>
<td>Health, Safety &amp; Nutrition OR</td>
<td>3</td>
</tr>
<tr>
<td>KHP 230</td>
<td>Human Health &amp; Wellness OR</td>
<td>3</td>
</tr>
<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness OR</td>
<td>3</td>
</tr>
<tr>
<td>IEC 130</td>
<td>Early Childhood Development</td>
<td>3</td>
</tr>
<tr>
<td>IEC 170</td>
<td>Observation &amp; Assessment OR</td>
<td>3</td>
</tr>
<tr>
<td>IEC 190</td>
<td>Applied Experiences in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 180</td>
<td>Approaches to Early Childhood Education Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>IEC 200</td>
<td>Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td>IEC 216</td>
<td>Literacy and Language in IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 221</td>
<td>Creative Expressions in IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 246</td>
<td>Sciences and Mathematics for IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 235</td>
<td>Introduction to Inclusive Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 260</td>
<td>Infant and Toddler Education and Programming</td>
<td>3</td>
</tr>
<tr>
<td>IEC 291</td>
<td>IEC Practicum/Cooperative Education</td>
<td>3</td>
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</tbody>
</table>

**Total Credits** 39-42

Choose one course from the following approved technical support elective courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 210</td>
<td>Families &amp; Communities in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 240</td>
<td>Administration of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 250</td>
<td>School Age Child Care</td>
<td>3</td>
</tr>
</tbody>
</table>

**Diploma**

Interdisciplinary Early Childhood Education - 1907094019
(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SMC)

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

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

**Total Credits** 6

**Required:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 101</td>
<td>Orientation to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 102</td>
<td>Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>KHP 230</td>
<td>Human Health &amp; Wellness OR</td>
<td>3</td>
</tr>
<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness OR</td>
<td>3</td>
</tr>
<tr>
<td>IEC 130</td>
<td>Early Childhood Development</td>
<td>3</td>
</tr>
<tr>
<td>IEC 170</td>
<td>Observation &amp; Assessment OR</td>
<td>3</td>
</tr>
<tr>
<td>IEC 190</td>
<td>Applied Experiences in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 180</td>
<td>Approaches to Early Childhood Education Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>IEC 200</td>
<td>Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td>IEC 216</td>
<td>Literacy and Language in IECE</td>
<td>3</td>
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<td>IEC 221</td>
<td>Creative Expressions in IECE</td>
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<td>Sciences and Mathematics for IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 235</td>
<td>Introduction to Inclusive Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 260</td>
<td>Infant and Toddler Education and Programming</td>
<td>3</td>
</tr>
<tr>
<td>IEC 291</td>
<td>IEC Practicum/Cooperative Education</td>
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</table>

**Total Credits** 48-51

Certificate

Interdisciplinary Early Childhood Education Technical Studies - 1907093019
(Offered at ASC, BLC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SMC, WKC)

**Required:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 101</td>
<td>Orientation to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 102</td>
<td>Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>KHP 230</td>
<td>Human Health &amp; Wellness OR</td>
<td>3</td>
</tr>
<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness OR</td>
<td>3</td>
</tr>
<tr>
<td>IEC 130</td>
<td>Early Childhood Development</td>
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</tr>
<tr>
<td>IEC 170</td>
<td>Observation &amp; Assessment OR</td>
<td>3</td>
</tr>
<tr>
<td>IEC 190</td>
<td>Applied Experiences in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 180</td>
<td>Approaches to Early Childhood Education Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>IEC 200</td>
<td>Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td>IEC 216</td>
<td>Literacy and Language in IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 221</td>
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<td>Sciences and Mathematics for IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 235</td>
<td>Introduction to Inclusive Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 260</td>
<td>Infant and Toddler Education and Programming</td>
<td>3</td>
</tr>
<tr>
<td>IEC 291</td>
<td>IEC Practicum/Cooperative Education</td>
<td>3</td>
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</tbody>
</table>

**Total Credits** 42
Child Care Assistant - 1907093039

(Offered at ASC, BLC, BSC, EL, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OW, SEC, SMC, WKC)

**Required:**
- IEC 101 Orientation to Early Childhood Education ................. 3
- IEC 102 Foundations of Early Childhood Education ................. 3

Any IEC three (3) hour course with the exception of IEC 190, IEC 230, IEC 250, and IEC 291 ................. 3

**Total Credits** 9

Kentucky Child Care Provider - 1907093049

(Offered at ASC, BLC, BSC, EL, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OW, SEC, SMC, WKC)

**Available Completely Online**

**Required:**
- IEC 101 Orientation to Early Childhood Education ................. 3

**Total Credits** 3

Early Childhood Administrator - 1907093059

(Offered at ASC, BLC, BSC, EL, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OW, SEC, SMC, WKC)

**Option One: Course Work**

**Required:**
- IEC 101 Orientation to Early Childhood Education ................. 3
- IEC 102 Foundations of Early Childhood Education ................. 3
- IEC 240 Administration of Early Childhood Education ............. 3
- BAS 200 Small Business Management OR ......................... 3
- IEC 230 Business Administration of ECE Programs .................. (3)

**Total Credits** 12

**Option Two: With a current CDA Articulated credit for IEC 101 and IEC 102**

**Required:**
- IEC 240 Administration of Early Childhood Education ............. 3
- BAS 200 Small Business Management OR ......................... 3
- IEC 230 Business Administration of ECE Programs .................. (3)

**Total Credits**

**Option Three: With Life Skills Portfolio to replace competencies for IEC 101 and IEC 102**

**Required:**
- IEC 240 Administration of Early Childhood Education ............. 3
- BAS 200 Small Business Management OR ......................... 3
- IEC 230 Business Administration of ECE Programs .................. (3)

Life Skills is defined as a total of five years (10,000 Hours) of paid, full-time work experience in a licensed child care facility. Two and one-half years (5,000 Hours) must have been within the last five (5) years.

School Age Child Care - 1907093069

(Offered at ASC, BLC, EL, GTW, HEC, HPC, HZC, JFC, OW, SEC, SMC, WKC)

**IEC**
- IEC 101 Orientation to Early Childhood Education ................. 3
- IEC 102 Foundations of Early Childhood Education ................. 3
- IEC 130 Early Childhood Development ................................ 3
- IEC 200 Child Guidance .............................................. 3
- IEC 250 School Age Child Care ...................................... 3

**Total Credits:** 15

---

Invasive Cardiology

The goal of the Invasive Cardiology Program is to provide a competency-based didactic course with a well-rounded clinical experience. The student will be exposed to and expected to acquire skills, attitudes, and habits that are common to professionals in the medical field. Graduates will be prepared for a professional career as an Invasive Cardiovascular Technologist.

**Certificate**

Invasive Cardiology – 5109153019

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS 105</td>
<td>Introduction to Cardiology</td>
<td>13</td>
</tr>
<tr>
<td>IVC 140</td>
<td>Invasive Cardiology I</td>
<td>16</td>
</tr>
<tr>
<td>IVC 150</td>
<td>Invasive Cardiology II</td>
<td>3</td>
</tr>
<tr>
<td>IVC 160</td>
<td>Invasive Cardiology Clinical Education I</td>
<td>6</td>
</tr>
<tr>
<td>IVC 165</td>
<td>Invasive Cardiology Clinical Education II</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Credits:** 44

Logistics and Operations Management

The Logistics and Operations Management program is designed to teach students about the sourcing, procurement, conversion, and logistics concepts associated with the production and delivery of goods and services.

**Associate in Applied Science**

Logistics and Operations Management – 5202037019

(Offered at WKC)

**General Education Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics or Higher General Education</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Quantitative Reasoning course</td>
<td>3</td>
</tr>
<tr>
<td>NAT 301</td>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HER 301</td>
<td>Social/Behavioral Sciences (Must be a different course from the ECO course selected in the Technical or Support Courses)</td>
<td>3</td>
</tr>
<tr>
<td>HER 301</td>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
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</table>

**Subtotal:** 18

**Technical or Support Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</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 256</td>
<td>International Business</td>
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<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
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<tr>
<td>BAS 287</td>
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<tr>
<td>BAS 289</td>
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<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
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<tr>
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<tr>
<td>LOM 101</td>
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<tr>
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<tr>
<td>LOM 210</td>
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</tr>
<tr>
<td>ECO 101</td>
<td>Contemporary Economic Issues OR</td>
<td>3</td>
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<tr>
<td>ECO 150</td>
<td>Global Economic Issues OR</td>
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<td>Principles of Microeconomics OR</td>
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Approved digital literacy course.

Certificates

Logistics Management – 5202033019
(Offered at WKC)

<table>
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<tbody>
<tr>
<td>BAS 160 Introduction to Business</td>
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<tr>
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<tr>
<td>LOM 101 Transportation</td>
<td>3</td>
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<tr>
<td>LOM 102 Supply Chain Management</td>
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Supply Chain Management – 5202033029
(To be completed at WKC)

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<tr>
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<tr>
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<td>LOM 100 Introduction to Logistics Management</td>
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<tr>
<td>LOM 101 Transportation</td>
<td>3</td>
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Logistics Technology – 5202033039
(To be completed at WKC)

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<td>LOM 101 Transportation</td>
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<td>LOM 102 Supply Chain Management</td>
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International Logistics – 5202033049
(To be completed at WKC)

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*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

Manufacturing Engineering Technology

The Manufacturing Engineering Technology degree offers students the opportunity to build a career in advanced manufacturing. It is focused on producing graduates to work as engineering technicians and first-line supervisors in manufacturing firms. The degree provides a broad foundation across many facets of operations management and manufacturing technologies. Graduates will be able to assist in leading projects across multiple disciplines in advanced manufacturing firms. They will possess an understanding of manufacturing operations and possess the interpersonal skills to lead work groups. They will be able to work in almost any manufacturing setting from discrete manufacturing to continuous flow and assembly line operations.

Associate in Applied Science

Manufacturing Engineering Technology - 1506137029
(Offered at GTW)

General Education

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<td>MAT 150 College Algebra</td>
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<tr>
<td>MAT 155 Trigonometry</td>
<td>3</td>
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<tr>
<td>STA 220 Statistical Method OR</td>
<td>3</td>
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<tr>
<td>MAT 170 Brief Calculus with Applications</td>
<td>3</td>
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<tr>
<td>PSY 110 General Psychology OR</td>
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Core

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<tr>
<td>MFG 175 Lean Operations</td>
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</tr>
<tr>
<td>ELT 110 Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ELT 201 Statics and Strengths of Materials</td>
<td>4</td>
</tr>
<tr>
<td>BAS 289 Operations Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MFG 256 Production Management OR</td>
<td>3</td>
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<tr>
<td>MFG 135 Fundamentals of Mechatronics</td>
<td>6</td>
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<tr>
<td>QMS 101 Introduction to Quality Systems</td>
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Technical Electives

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<td>BAS 288 Personal and Organizational Leadership</td>
<td>3</td>
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<tr>
<td>BRX 112 Blueprint Reading for Machinists OR</td>
<td>4</td>
</tr>
<tr>
<td>BRX 120 Basic Blueprint Reading OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199 Cooperative Education OR</td>
<td>1-5</td>
</tr>
<tr>
<td>CAD 102 Drafting Fundamentals OR</td>
<td>4</td>
</tr>
<tr>
<td>CAD 112 Engineering Graphics OR</td>
<td>4</td>
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<tr>
<td>DFT 152 Intermediate Computer Aided Drafting</td>
<td>4</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 264 Rotating Machinery</td>
<td>2</td>
</tr>
<tr>
<td>EET 265 Rotating Machinery Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 270 Electrical Motor Controls I</td>
<td>2</td>
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<td>EET 271 Electrical Motor Controls I Lab</td>
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<td>EET 272 Electrical Motor Controls II</td>
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<td>EET 273 Electrical Motor Controls II Lab</td>
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<tr>
<td>EET 276 Programmable Logic Controllers</td>
<td>2</td>
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<tr>
<td>EET 277 Programmable Logic Controllers Lab</td>
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</tr>
<tr>
<td>ELT 110 Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ELT 114 Circuits II</td>
<td>5</td>
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<tr>
<td>ELT 260 Robotics and Industrial Automation</td>
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<tr>
<td>ETT 110 Voice &amp; Data Installer Level I</td>
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Total Credits                        | 61-66   |

*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

** May include BAS, QMS, STA or Business and Industry approved courses.

Academic Curricula
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
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<td>Basic Public Speaking OR</td>
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</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
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<td>College Algebra</td>
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<tr>
<td>CMM 110</td>
<td>Fundamentals of Machine Tool – A</td>
<td>(3)</td>
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<td>CMM 112</td>
<td>Fundamentals of Machine Tool – B</td>
<td>4</td>
</tr>
<tr>
<td>CMM 118</td>
<td>Metrology and Control Charts</td>
<td>3</td>
</tr>
<tr>
<td>CMM 130</td>
<td>Manual Programming</td>
<td></td>
</tr>
<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>
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<tr>
<td>QMS 240</td>
<td>Statistics for Quality I</td>
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**Total Credits:** 14

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## Quality Control - 1506133049

### General Education

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<th>Course Title</th>
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<tbody>
<tr>
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<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
</tr>
<tr>
<td>STA 220</td>
<td>Statistics OR</td>
<td>3</td>
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**Total Credits:** 6

### Core

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<td>Basic Blueprint Reading OR</td>
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</tr>
<tr>
<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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<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>
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<td>STA 220</td>
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**Total Credits:** 15-16

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## Operations Management - 5202013369

### General Education

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<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management OR</td>
<td>3</td>
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<td>BAS 288</td>
<td>Personal and Organizational Leadership OR</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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<tr>
<td>MFG 256</td>
<td>Production Management</td>
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<tr>
<td>ENG 101</td>
<td>Writing</td>
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<td>MAT 116</td>
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<td>3</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra &amp; Trigonometry OR</td>
<td>(3)</td>
</tr>
<tr>
<td>STA 220</td>
<td>Statistics OR</td>
<td>3</td>
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<td>STA 220</td>
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**Total Credits:** 18

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## Fundamentals of Mechatronics - 1500003219

### General Education

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<tr>
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<td>1</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
<td>3</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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<tr>
<td>CMM 118</td>
<td>Metrology &amp; Control Charts</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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**Total Credits:** 14

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## Enhanced Operator – 1506133119

### General Education

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<td>ISX 1001</td>
<td>Safety &amp; Universal Precaution</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>CMM 118</td>
<td>Metrology &amp; Control Charts</td>
<td>2</td>
</tr>
<tr>
<td>MFG 175</td>
<td>Lean Operations</td>
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<td>IET 1206</td>
<td>Hand &amp; Power Tools</td>
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**Total Credits:** 14

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## Manufacturing Industrial Technology

**Two programs are offered under the broader heading of MIT. They are Electrical Technology and Industrial Maintenance Technology.**

### MIT: Electrical Technology

The Electrical Technology Program focuses on preparing students for various entry-level electrical positions in industry and the building trades. The study of electrical theory in the classroom and the practical application of that theory in labs provide the foundation of this program. This program is versatile in offering three different tracks within the Associate of Applied Science degree. A variety of certificates and diplomas serve as pathways to the AAS degree tracks or as meeting specific training needs.

Students enrolled in the Electrical Technology program are required to achieve a minimum grade of “C” in the technical core and in those courses selected as technical electives.

### Associate in Applied Science

**Electrical Technology - 4603027039**

### General Education:

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<th>Course Title</th>
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<tbody>
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<td>MAT 126</td>
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<td>STA 220</td>
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<td>Statistics OR</td>
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**Total Credits:** 18
Academic Curricula

Technical Core:

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<tr>
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<td>Basic Electricity</td>
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<td>EET 265</td>
<td>Rotating Machinery Lab</td>
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<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I</td>
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<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
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<tr>
<td>ELT 114</td>
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<tr>
<td>EET 150</td>
<td>Transformers AND</td>
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<tr>
<td>EET 151</td>
<td>Transformers Lab</td>
<td>1</td>
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<td>ELT 260</td>
<td>Robotics and Industrial Automation</td>
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<tr>
<td>EET 154</td>
<td>Electrical Construction I AND</td>
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<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
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</tr>
<tr>
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<td>Electrical Construction Lab</td>
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<td>EET 273</td>
<td>Electrical Motor Controls II Lab AND</td>
<td>2</td>
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<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
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<td>Electrical Motor Controls I AND and PLC's AND</td>
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<tr>
<td>MAT 116</td>
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<td>ELT 127</td>
<td>Electrical Capstone</td>
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<td>EET 265</td>
<td>Applied Fluid Power</td>
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<tr>
<td>ELT 127</td>
<td>Electrical Capstone</td>
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Technical Core List: Pick a course(s) for a minimum of 4 credits and a maximum of 5 credits from this list.

<table>
<thead>
<tr>
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<th>Course Name</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>EET 150</td>
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<td>2</td>
</tr>
<tr>
<td>EET 151</td>
<td>Transformers Lab</td>
<td>1</td>
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<tr>
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<td>Robotics and Industrial Automation</td>
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<tr>
<td>EET 154</td>
<td>Electrical Construction I AND</td>
<td>2</td>
</tr>
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<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 254</td>
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<td>(3)</td>
</tr>
<tr>
<td>EET 255</td>
<td>Electrical Construction Lab</td>
<td></td>
</tr>
<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
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</tr>
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<td>Programmable Logic Controllers Lab OR</td>
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<td>Electrical Motor Controls I AND and PLC's AND</td>
<td>(3)</td>
</tr>
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<td>EET 279</td>
<td>Electrical Motor Controls II and PLC's Lab</td>
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<td>ELT 127</td>
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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 Electrician Track - 460302701

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</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 254</td>
<td>Electrical Construction AND</td>
<td>(3)</td>
</tr>
<tr>
<td>EET 255</td>
<td>Electrical Construction Lab</td>
<td></td>
</tr>
<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab AND</td>
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<td>Programmable Logic Controllers AND</td>
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<td>EET 277</td>
<td>Programmable Logic Controllers Lab OR</td>
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<td>Electrical Motor Controls I AND and PLC's AND</td>
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<td>Applied Fluid Power</td>
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Total Credits 65-68

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Construction Electrician Track - 460302702

<table>
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<th>Credits</th>
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<tbody>
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<td>Electrical Construction I AND</td>
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</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
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<tr>
<td>EET 254</td>
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<td>EET 255</td>
<td>Electrical Construction Lab</td>
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<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II AND</td>
<td>2</td>
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<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab AND</td>
<td>2</td>
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<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
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</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab OR</td>
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<tr>
<td>EET 278</td>
<td>Electrical Motor Controls I AND and PLC's AND</td>
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<td>EET 279</td>
<td>Electrical Motor Controls II and PLC's Lab</td>
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<td>ELT 127</td>
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<td>EET 265</td>
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</table>

Total Credits 60-61

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Motor Controls Electrician Track - 460302703

<table>
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<th>Course Name</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>EET 272</td>
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<td>EET 273</td>
<td>Electrical Motor Controls II Lab AND</td>
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<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
<td>2</td>
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<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab OR</td>
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<tr>
<td>EET 278</td>
<td>Electrical Motor Controls II and PLC's AND</td>
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<td>EET 279</td>
<td>Electrical Motor Controls II and PLC's Lab</td>
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</tr>
<tr>
<td>FPX 100</td>
<td>Fluid Power AND</td>
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<tr>
<td>EET 265</td>
<td>Applied Fluid Power</td>
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<td>ELT 127</td>
<td>Electrical Capstone</td>
<td>1</td>
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<tr>
<td>EET 276</td>
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<td>Programmable Logic Controllers Lab</td>
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Total Credits 60-63

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Diploma

Electrical Technology - 4603024049

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<td>EET 119</td>
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<td>EET 264</td>
<td>Rotating Machinery</td>
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<td>EET 265</td>
<td>Rotating Machinery Lab</td>
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<tr>
<td>EET 270</td>
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<td>EET 127</td>
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<td>EET 265</td>
<td>Applied Fluid Power</td>
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<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
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<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
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<tr>
<td>ELT 127</td>
<td>Electrical Capstone</td>
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</table>

Total Credits 60-63

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

General Education:

Area 1

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<thead>
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<th>Code</th>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics OR</td>
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</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra &amp; Trigonometry OR</td>
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</tbody>
</table>

Total Credits 60-63

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.
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 ASC, BLC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

<table>
<thead>
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<th>Course Title</th>
<th>Hours</th>
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<td>EET 252</td>
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<td>EET 253</td>
<td>Electrical Construction II Lab OR</td>
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<td>EET 254</td>
<td>Electrical Construction AND</td>
<td>3</td>
</tr>
<tr>
<td>EET 255</td>
<td>Electrical Construction Lab</td>
<td>4</td>
</tr>
<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab AND</td>
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<tr>
<td>EET 276</td>
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<td>EET 277</td>
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<tr>
<td>EET 278</td>
<td>Electrical Motor Controls II and PLCs AND</td>
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</tr>
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</table>

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

**Motor Controls Electrician Track - 460302403**
*(Offered at ASC, BLC, ELC, GTW, HPC, HZC, 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>EET 272</td>
<td>Electrical Motor Controls II AND</td>
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<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab AND</td>
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<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
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<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab OR</td>
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<tr>
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<td>Fluid Power Lab OR</td>
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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.

**Electrical Construction - 460302309**
*(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ELT 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 150</td>
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<td>Transformers Lab</td>
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**Electrician Trainee Level II - 4603023059**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
<td>5</td>
</tr>
<tr>
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<td>Electrical Construction I</td>
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<td>Electrical Construction I Lab</td>
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<td>EET 252</td>
<td>Electrical Construction II</td>
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<td>Electrical Construction II Lab OR</td>
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</tr>
<tr>
<td>EET 264</td>
<td>Rotating Machinery AND</td>
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<td>EET 265</td>
<td>Rotating Machinery Lab AND</td>
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<td>Rotating Machinery Electrical Motor Controls I Lab</td>
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**Residential Electricity Level I - 4603023049**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

<table>
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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
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<td>5</td>
</tr>
<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
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<tr>
<td>EET 154</td>
<td>Electrical Construction I</td>
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<td>EET 155</td>
<td>Electrical Construction I Lab</td>
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<td>EET 252</td>
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<td>EET 253</td>
<td>Electrical Construction II Lab OR</td>
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**Residential Electricity Level II - 4603023069**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

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<td>EET 154</td>
<td>Electrical Construction I</td>
<td>2</td>
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<td>EET 155</td>
<td>Electrical Construction I Lab</td>
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<tr>
<td>EET 252</td>
<td>Electrical Construction II</td>
<td>2</td>
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<tr>
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<td>Electrical Construction II Lab OR</td>
<td>2</td>
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<td>EET 254</td>
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<td>3</td>
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<tr>
<td>EET 255</td>
<td>Electrical Construction Lab</td>
<td>4</td>
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<tr>
<td><strong>Technical Electives</strong></td>
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**National Electric Code**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

<table>
<thead>
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<td>EET 155</td>
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<td>EET 253</td>
<td>Electrical Construction II Lab OR</td>
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<td>EET 255</td>
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<td>EET 264</td>
<td>Rotating Machinery AND</td>
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<tr>
<td>EET 265</td>
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<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
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<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab OR</td>
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<td>EET 268</td>
<td>Rotating Machinery Electrical Motor Controls I AND</td>
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<td>Rotating Machinery Electrical Motor Controls I Lab</td>
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**Electrician Trainee Level I - 4603023039**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ELT 110</td>
<td>Basic Electricity</td>
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**Certificates**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

<table>
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<td>ELT 110</td>
<td>Circuits I OR</td>
<td>5</td>
</tr>
<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
<td>5</td>
</tr>
<tr>
<td>EET 150</td>
<td>Transformers AND</td>
<td>2</td>
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<tr>
<td>EET 151</td>
<td>Transformers Lab</td>
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<td><strong>Total Credits</strong></td>
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**Residential Electricity Level II - 4603023079**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

<table>
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<td>EET 119</td>
<td>Basic Electricity</td>
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<tr>
<td>EET 150</td>
<td>Transformers AND</td>
<td>2</td>
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<tr>
<td>EET 151</td>
<td>Transformers Lab</td>
<td>1</td>
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<tr>
<td>EET 264</td>
<td>Rotating Machinery AND</td>
<td>2</td>
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<tr>
<td>EET 265</td>
<td>Rotating Machinery Lab AND</td>
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<tr>
<td><strong>Technical Electives</strong></td>
<td><strong>2</strong></td>
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<tr>
<td><strong>Total Credits</strong></td>
<td><strong>21-22</strong></td>
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</table>
Digital Literacy Course .............................................. 3
May be offered in different combinations.

ELT 110 Circuits I OR .......................................................... 5
EET 119 Basic Electricity ..................................................... (5)

Digital Literacy Course .............................................. 2

**May be offered in different combinations.

Voice and Data Wiring Installer Level I - 4603023099
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

EET 110 Circuits I OR .......................................................... 5
EET 119 Basic Electricity ..................................................... (5)

ETT 110 V oice and Data Installer Level 1 .................................... 4
ETT 113 Basic Electrical Theory ............................................. 3
ETT 118 Residential Network Wiring ........................................ 3

Voice and Data Wiring Technician - 4603023119
(Offered 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 199 Cooperative Education for Voice and Data Wiring Technicians 3

Total Credits 11

**May be offered in different combinations.

MIT: Industrial Maintenance Technology

Industrial Maintenance Track:

An understanding of the requirements and opportunities in maintenance, good safety practices, pride in workmanship, and an understanding of the principles and accepted practices of the maintenance trade are covered in this program. Students are trained to hold positions in factories, hotels, etc., where multi-skilled maintenance personnel are needed. Included are courses in air conditioning, carpentry, electricity, machine tool, metal fabrication, and welding.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Advanced Manufacturing Technician Track

Advanced Manufacturing requires demonstrating multiple skills and competencies. Students accepted into this program gain valuable workplace experience, working three (3) days in a manufacturing environment and two (2) days on campus in a manufacturing-based classroom. Critical conceptual components of the track include embedded Safety Culture, Workplace Organization (5S), 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).

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 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).
Technical Electives List*:

If courses equaling 10 credits are taken, five (5) credits may be used as electives.

Eighteen (18) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.

**If courses equaling 10 credits are taken, five (5) credits may be used as electives.

### Technical Electives:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACR 100</td>
<td>Refrigeration Fundamentals</td>
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<tr>
<td>ACR 250</td>
<td>Cooling and Dehumidification</td>
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<td>ACR 260</td>
<td>Heating and Humidification</td>
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<td>ACR 261</td>
<td>Heating and Humidification Lab</td>
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<td>BRX 210</td>
<td>Mechanical Blueprint Reading for Machinist</td>
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<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
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<td>Modules CAD 1001 – 1004</td>
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<td>CMM 110</td>
<td>Fundamentals of Machine Tools A</td>
<td>3</td>
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<td>CMM 112</td>
<td>Fundamentals of Machine Tools B</td>
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<td>CMM 114</td>
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<td>CMM 120</td>
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<td>EET 148</td>
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<td>Industrial Maintenance Electrical Concepts</td>
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### Subtotal 28-32

### Total Credits 64-68
### Advanced Manufacturing Technician Track - 470303702
(Offered at BSC, BLC, ELC, GTW, HEC, HPC, JFC, SKY, SMC)

**Technical Core:**
- Digital Literacy ....................................................... 3
- BRX 120 Basic Blueprint Reading .................................(2)
- CMM 110 Fundamentals of Machine Tools – A .................. 3
- EET 270 Electrical Motor Controls I AND ......................... 2
- EET 271 Electrical Motor Controls I Lab .......................... 2
- EET 272 Electrical Motor Controls II AND ......................... 2
- EET 273 Electrical Motor Controls Lab II .........................(2)
- EET 276 Programmable Logic Controllers AND ................. 2
- EET 277 Programmable Logic Controllers Lab .................. 2
- FPX 100 Fluid Power AND ............................................ 3
- FPX 105 Fluid Power Lab .............................................. 2
- IET 1301 Safety Culture .................................................... 1
- IET 1302 5S ................................................................. 1
- IET 1303 Total Production System Maintenance ................. 1
- IET 1304 Problem Solving .............................................. 1
- IET 1305 Maintenance Reliability ................................... 1
- IMT 100 Welding for Maintenance AND .......................... 3
- IMT 101 Welding for Maintenance Lab ............................. 2
- IMT 110 Industrial Maintenance Electrical Principles AND ...... 3
- IMT 111 Industrial Maintenance Electrical Principles Lab .......... 2
- IMT 150 Maintaining Industrial Equipment AND .................. 3
- IMT 151 Maintaining Industrial Equipment Lab .................. 2
- IMT 198 Practicum ......................................................... 2
- IMT 200 Industrial Robotics and Robotic Maintenance ......... 4
- IMT 289 Industrial Maintenance Technology Capstone .......... 1

**Subtotal**  53

**Total Credits**  71

*Note: Only Integrated Engineering Technology (IET) courses are approved for substitution into the Advanced Manufacturing Technician Track.

*Note: Minimum of 1,824 hours of Industry Sponsored Internship.

### Automotive Manufacturing Technical Education Collaborative (AMTEC)
Track- 470303703
(Offered at BSC, BLC, HPC, JFC, SMC)

**Technical Core:**
- Digital Literacy ....................................................... 3
- BRX 110 Basic Blueprint Reading for Machinist OR .................(2)
- BRX 120 Basic Blueprint Reading OR .................................... 3
- ELT 102 Blueprint Reading ............................................... 3
- FPX 100 Fluid Power AND .............................................(3)
- FPX 105 Fluid Power Lab .............................................. 2
- IMT 110 Industrial Maintenance Electrical Principles AND ......... 3
- IMT 111 Industrial Maintenance Electrical Principles Lab .......... 2
- IMT 111 Industrial Maintenance Electrical Principles Lab OR ........ 2
- IMT 119 Basic Electricity .................................................. 3
- IMT 150 Maintaining Industrial Equipment I AND .................. 3
- IMT 151 Maintaining Industrial Equipment I Lab .................. 2
- IMT 220 Industrial Maintenance Electrical Motor Controls I AND ... 3
- IMT 221 Industrial Maintenance Electrical Motor Controls I Lab OR .... 2
- EET 270 Electrical Motor Controls IAND ................................ 2
- EET 271 Electrical Motor Controls I Lab OR .......................... 2
- EET 244 Electrical Machinery and Controls OR ................... 4
- IMT 120 Industrial Maintenance Rotating Machinery AND ........... 3
- IMT 121 Industrial Maintenance Rotating Machinery Lab OR ........ 2
- IMT 100 Welding for Maintenance OR ................................. 3
- IMT 101 Welding for Maintenance Lab .................................. 2
- WLD 120 Shielded Metal Arc-Welding AND ...........................(2)
- WLD 121 Shielded Metal Arc-Welding Fillet Lab OR ................. 2
- WLD 140 Gas Metal Arc Welding .........................................(2)
- WLD 141 Gas Metal Arc Welding Fillet Lab OR ........................ 2

**Subtotal**  32-36

**Total Credits**  49-53

*If courses equaling 10 credits are taken, five (5) credits may be used as electives.

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**Technical Electives:**

- IET 109 Safety .............................................................. 3
- IET 120 Machine Tool Operations ..................................... 4
- IET 203 Programmable Logic Controllers .......................... 5
- IET 205 Robot Maintenance ............................................. 4

**Subtotal**  16

**Total Credits**  62-66

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**Diploma**

### Industrial Maintenance Technician - 4703034049
(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 =**
- MAT 116 Technical Mathematics OR Higher ........................................ 3

**Subtotal**  6

**Technical Core:**
- Digital Literacy ....................................................... 3
- BRX 120 Basic Blueprint Reading OR .................................(2)
- BRX 110 Basic Blueprint Reading for Machinist OR .................(2)
- BRX 112 Blueprint Reading for Machinist OR ..........................(4)
- EET 102 Blueprint Reading ................................................ (2)
- FPX 100 Fluid Power AND .............................................(3)
- FPX 101 Fluid Power Lab OR ............................................. 2
- IMT 200 Industrial Maintenance Electrical Principles AND ...... 3
- IMT 111 Industrial Maintenance Electrical Principles Lab OR ........ 2
- IMT 119 Basic Electricity .................................................. 3
- IMT 150 Maintaining Industrial Equipment I AND .................. 3
- IMT 151 Maintaining Industrial Equipment I Lab .................. 2
- IMT 220 Industrial Maintenance Electrical Motor Controls I AND ... 3
- IMT 221 Industrial Maintenance Electrical Motor Controls I Lab OR .... 2
- EET 270 Electrical Motor Controls I AND ................................ 2
- EET 271 Electrical Motor Controls I Lab OR .......................... 2
- EET 244 Electrical Machinery and Controls OR ................... 4
- IMT 120 Industrial Maintenance Rotating Machinery AND ........... 3
- IMT 121 Industrial Maintenance Rotating Machinery Lab OR ........ 2
- IMT 100 Welding for Maintenance OR ................................. 3
- IMT 101 Welding for Maintenance Lab .................................. 2
- WLD 120 Shielded Metal Arc-Welding AND ...........................(2)
- WLD 121 Shielded Metal Arc-Welding Fillet Lab OR ................. 2
- WLD 140 Gas Metal Arc Welding .........................................(2)
- WLD 141 Gas Metal Arc Welding Fillet Lab OR ........................ 2
- EET 264 Rotating Machinery AND .....................................(6)
- EET 265 Rotating Machinery Lab ........................................ 2
- IMT 100 Welding for Maintenance AND ................................. 3
- IMT 101 Welding for Maintenance Lab .................................. 2
- WLD 120 Shielded Metal Arc-Welding AND ...........................(2)
- WLD 121 Shielded Metal Arc-Welding Fillet Lab OR ................. 2
- WLD 140 Gas Metal Arc Welding .........................................(2)
- WLD 141 Gas Metal Arc Welding Fillet Lab OR ........................ 2
- IMT 120 Industrial Maintenance Rotating Machinery AND ........... 3
- IMT 121 Industrial Maintenance Rotating Machinery Lab OR ........ 2
- IMT 100 Welding for Maintenance OR ................................. 3
- IMT 101 Welding for Maintenance Lab .................................. 2
- WLD 120 Shielded Metal Arc-Welding AND ...........................(2)
- WLD 121 Shielded Metal Arc-Welding Fillet Lab OR ................. 2
- WLD 140 Gas Metal Arc Welding .........................................(2)
- WLD 141 Gas Metal Arc Welding Fillet Lab OR ........................ 2
- IMT 289 Industrial Maintenance Technology Capstone .......... 1

**Subtotal**  15

**Total Credits**  49-53

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*Academic Curricula*
Certificates

**Fluid Power Mechanic - 4703033129**

(Offered at BLC, BSC, HEC, HPC, MYC, OW C, SMC, WKC)

- FPX 100 Fluid Power AND .................................................3
- FPX 101 Fluid Power Lab OR ....................................................2
- ELT 265 Applied Fluid Power ....................................................3
- MST 200 Advanced Hydraulic Systems AND ..............................3
- MST 201 Advanced Hydraulic Systems Lab ................................2
- MST 204 Advanced Pneumatic Systems AND ..............................3
- MST 205 Advanced Pneumatic Systems Lab ...............................2

**Total Credits** 8-10

**Industrial Maintenance Machinists Mechanic - 4703033119**

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

- BRX 120 Basic Blueprint Reading OR ....................................3
- BRX 110 Basic Blueprint Reading for Machinist OR ......................2
- BRX 112 Blueprint Reading for Machinist OR ............................(4)
- ELT 102 Blueprint Reading ..................................................(2)
- IMT 100 Welding for Maintenance AND ....................................3
- IMT 101 Welding for Maintenance Lab OR ..................................2
- WLD 120 Shielded Metal Arc Welding AND ...............................(2)
- WLD 121 Shielded Metal Arc Welding Fillet Lab OR ....................(3)
- WLD 140 Gas Metal Arc Welding AND .....................................(2)
- WLD 141 Gas Metal Arc Welding Fillet Lab OR ...........................(3)
- WLD 152 Basic-Welding B .....................................................(5)
- IMT 115 Maintenance Machining I AND ..................................2
- IMT 116 Maintenance Machining I Lab OR .................................5
- CMM 114 Fundamentals of Machine Tools OR ..........................(6)
- CMM 110 Fundamentals of Machine Tools - A AND ....................(3)
- CMM 112 Fundamentals of Machine Tools - B ...........................(3)
- IMT 150 Maintaining Industrial Equipment I ............................3
- IMT 151 Maintaining Industrial Equipment I Lab ........................2

**Total Credits** 19-21

**Industrial Maintenance Electrical Mechanic - 4703033159**

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, MYC, OW C, SEC, SKY, SMC, WKC)

- FPX 100 Fluid Power AND .....................................................3
- FPX 101 Fluid Power Lab OR ....................................................2
- ELT 265 Applied Fluid Power ....................................................3
- IMT 110 Industrial Maintenance Electrical Principles AND ..........3
- IMT 111 Industrial Maintenance Electrical Principles Lab OR ........2
- ELT 110 Circuits I OR ..........................................................5
- EE T 119 Basic Electricity ......................................................5
- IMT 220 Industrial Maintenance Electrical Motor Controls I AND ....3
- IMT 221 Industrial Maintenance Electrical Motor Controls I Lab OR ...2
- EET 270 Electrical Motor Controls I AND ..................................2
- EET 271 Electrical Motor Controls I Lab OR ...............................(3)
- 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 OR .........................................(2)
- IMT 280 Advanced Programmable Logic Controllers AND ............3
- IMT 281 Advanced Programmable Logic Controllers Lab OR .......(2)
- EET 276 Programmable Logic Controllers AND ...........................(2)
- EET 277 Programmable Logic Controllers Lab ............................(2)

**Total Credits** 12-15

**Industrial Maintenance Mechanic Level I - 4703033139**

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

- FPX 100 Fluid Power AND .....................................................3
- FPX 101 Fluid Power Lab OR ....................................................2
- ELT 265 Applied Fluid Power ....................................................3
- IMT 110 Industrial Maintenance Electrical Principles AND ........3
- IMT 111 Industrial Maintenance Electrical Principles OR ............2
- EET 119 Basic Electricity ......................................................(5)
- IMT 150 Maintaining Industrial Equipment I ............................3
- IMT 151 Maintaining Industrial Equipment I Lab ........................2

**Total Credits** 13-15

**Industrial Maintenance Mechanic Level II - 4703033149**

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

- BRX 120 Basic Blueprint Reading OR ....................................3
- BRX 110 Basic Blueprint Reading for Machinist OR ......................2
- BRX 112 Blueprint Reading for Machinist OR ............................(4)
- ELT 102 Blueprint Reading ..................................................(2)
- FPX 100 Fluid Power AND .....................................................3
- FPX 101 Fluid Power Lab OR ....................................................2
- EEL 265 Applied Fluid Power ..................................................3
- IMT 110 Industrial Maintenance Electrical Principles AND ..........3
- IMT 111 Industrial Maintenance Electrical Principles OR ............2
- ELT 110 Circuits I OR ..........................................................5
- EET 119 Basic Electricity ......................................................(5)
- IMT 100 Welding for Maintenance AND ....................................3
- IMT 101 Welding for Maintenance Lab OR ..................................2
- WLD 120 Shielded Metal Arc Welding AND ...............................(2)
- WLD 121 Shielded Metal Arc Welding Fillet Lab OR ....................(3)
- WLD 140 Gas Metal Arc Welding AND .....................................(2)
- WLD 141 Gas Metal Arc Welding Fillet Lab OR ...........................(3)
- WLD 152 Basic-Welding B .....................................................(5)
- IMT 115 Maintenance Machining I AND ..................................2
- IMT 116 Maintenance Machining I Lab OR .................................5
- CMM 114 Fundamentals of Machine Tools OR ..........................(6)
- CMM 110 Fundamentals of Machine Tools - A AND ....................(3)
- CMM 112 Fundamentals of Machine Tools - B ...........................(3)
- IMT 150 Maintaining Industrial Equipment I ............................3
- IMT 151 Maintaining Industrial Equipment I Lab ........................2

**Total Credits** 22-26

**Electro-hydraulic Technician - 4703033169**

(Offered at BLC, BSC, HEC, HPC, JFC, MYC, OW C, SMC)

- IMT 110 Industrial Maintenance Electrical Principles AND ........3
- IMT 111 Industrial Maintenance Electrical Principles Lab OR ........2
- EET 110 Circuits I OR ..........................................................5
- EET 119 Basic Electricity ......................................................(5)
- FPX 100 Fluid Power AND .....................................................3
- FPX 101 Fluid Power Lab OR ....................................................2
- EET 265 Applied Fluid Power ..................................................3
- TEC 200 Electro-hydraulic ......................................................3

**Total Credits** 13-15

**Chemical Operator - 4703033179**

(Offered at MYC, WKC)

- CHE 140 Introductory General Chemistry ................................3
- CHE 145 Introductory General Chemistry Lab ..........................1
- GEN 276 Employment and Professional Skills ..........................1
- IMT 140 Industrial Mechanics ................................................3
- IMT 141 Industrial Mechanics Lab .............................................1
- ITC 250 Team Dynamics and Problem Solving ..........................3
- ISX 100 Industrial Safety ......................................................3
- MAT 116 Technical Mathematics .............................................3
- PHX 150 Introduction to Physics .............................................3
- QMS 101 Introduction to Quality Systems .................................3
- TEC 200 Technical Communications ........................................3
- Digital Literacy .................................................................0-3

**Total Credits** 27-30

---

Certificates for Industrial Maintenance Electrical Mechanic - 4703033159

**Total Credits** 12-15

Certificates for Industrial Maintenance Mechanic Level I - 4703033139

**Total Credits** 13-15

Certificates for Industrial Maintenance Mechanic Level II - 4703033149

**Total Credits** 22-26

Certificates for Electro-hydraulic Technician - 4703033169

**Total Credits** 13-15

Certificates for Chemical Operator - 4703033179

**Total Credits** 27-30
The Marine Technology curriculum is designed to provide a strong theoretical base for employees of the inland marine industry. The program introduces students to basic inland marine principles and concepts by applying contemporary skills in a variety of employment positions based on industry needs. It provides students with a strong foundation of managerial and operational knowledge by using a problem-solving approach in state-of-the-art classroom and work experience environments. It builds leadership, management, communication skills, and professional ethics, which serve as a foundation for future development and career success. The program contains core technical courses and advanced courses in each track to address the employment needs of the domestic market.

### Associate in Applied Science

#### Marine Technology – 4903997019

(Offered at WKC)

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#### Track Subtotal: 27-30

#### Technical Core (required for all tracks):

- Digital Literacy .................................................... 0-3
- Introduction to Business ........................................... 3
- Introduction to Marine Technology ............................ 3
- Anatomy of a Towboat .................................................. 3
- Basic Marine Safety .................................................... 3
- Marine Weather .......................................................... 3
- Marine Crew Wellness ................................................. 3
- Environmental Protection Rules .................................... 3
- Introduction to Homeland Security ............................... 3
- Track Total: 18

#### Track Subtotal: 27-30

#### Wheelhouse Management Track – 490399701

(Offered at WKC)

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<td>Principles of Management ................................</td>
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<td>BAS 287</td>
<td>Supervisory Management ..................................</td>
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<td>MRN 200</td>
<td>Shipboard Deck Operations ................................</td>
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<td>MRN 201</td>
<td>Rules of the Road .......................................</td>
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<td>MRN 202</td>
<td>Piloting and Navigation ..................................</td>
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#### Track Total: 60-63

#### Marine Engineering Track – 490399702

(Offered at WKC)

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<td>Marine Fluid Systems ....................................</td>
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<td>MRN 214</td>
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#### Track Total: 61-64

#### Marine Logistics Operations Track – 490399703

(Offered at WKC)

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<td>Principles of Management ................................</td>
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<td>BAS 289</td>
<td>Operations Management ....................................</td>
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<td>MRN 208</td>
<td>Inland River Systems ....................................</td>
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#### Track Total: 60-63

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### Presswork and Die Maintenance Technician Level I – 4703033209

(Offered at OWC, SMC)

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<td>Maintenance Machining I Lab OR</td>
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<td>CMM 114</td>
<td>Fundamentals of Machine Tools OR</td>
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<td>CMM 110</td>
<td>Fundamentals of Machine Tools-A AND ..................</td>
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<td>CMM 112</td>
<td>Fundamentals of Machine Tools-B ........................</td>
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<td>Welding for Maintenance AND</td>
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<td>Welding for Maintenance Lab</td>
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### Presswork and Die Maintenance Technician Level II – 4703033219

(Offered at OWC, SMC)

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### Industrial Maintenance Robotics Technician – 4703033239

(Offered at BSC, BLC, ELG, HPC, JFC, MYC, SMC, WKC)

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<td>Circuits I OR ............................................</td>
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<td>FPX 100</td>
<td>Fluid Power AND ..........................................</td>
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<td>Fluid Power Lab OR .......................................</td>
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<td>IMT 220</td>
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### Natural Sciences

- 3

### Heritage/Humanities

- 3

### Digital Literacy

- 0-3

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### Additional Courses

- 175

---

### Total Credits: 34

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# Academic Curricula
Marine Culinary Management Track – 490399705
(Offered at WKC)

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<td>Principles of Management</td>
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<td>CUL 100</td>
<td>Introduction to Culinary Arts</td>
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<td>CUL 200</td>
<td>Sanitation and Safety</td>
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<td>CUL 230</td>
<td>Basic Nutrition</td>
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<td>CUL 280</td>
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Track Total : 61-64

Certificates

Marine Technology Business – 4903993019
(Offered at WKC)

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<td>Introduction to Logistics Management</td>
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Marine Industry - 4903993029
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Marine Culinary – 4903993039
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Marine Engineering – 4903993049
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<td>MRN 212</td>
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 Massage Therapy Technology

The Massage Therapy Technology degree offers a flexible, innovative curriculum designed to meet the changing needs of the health care marketplace with relation to Massage Therapy. The program will educate students in the principles of integrative massage modalities and the promotion of health and well-being. The program will provide students with the skills and knowledge necessary to work in a variety of settings, including but not limited to hospitals, massage clinics, rehabilitation clinics, spas, behavioral health clinics, wellness/fitness centers, doctor’s offices, private practice offices, and athletic programs at the high school, college, or professional level.

CPR requirements must be successfully completed prior to enrolling in MSG 232, Advanced Clinical Massage I. The course must be Professional or Healthcare Provider. Completion of CPR 100 meets program requirements.

Associate in Applied Science

Massage Therapy Technology - 5109997019
(Offered at GTW)

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Total Credits (AAS) : 60-67
Certificate

Massage Therapy - 5109993019
(Offered at GTW)

MIT 103 Medical Office Terminology OR ......................... 3
CLA 131 Medical Terminology from Greek and Latin OR .(3)
AHS 115 Medical Terminology ........................................3
MSG 117 Musculoskeletal Anatomy and Physiology I ........... 4
MSG 119 Musculoskeletal Anatomy and Physiology II ........... 4
MSG 132 Massage Technique I .......................................... .3
MSG 134 Massage Technique II ...........................................3
MSG 232 Advanced Clinical Massage I ................................ 3
MSG 234 Advanced Clinical Massage II .............................. 3
MSG 286 Massage Therapy Student Clinic ............................2
MSG 220 Massage Therapy Pathology .................................3

Total Credits 29

Masonry

The Masonry program prepares students for employment in the construction of houses, commercial structures and other projects involving brick, stone and other masonry materials. This program includes blueprint reading, introductory, intermediate and advanced masonry projects. Cost estimating, preparing materials lists, and practical experiences are included.

Progression in the Masonry program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average.

Diploma

Construction Mason - 4601014019
(Offered at BLC, BSC, JFC)

General Education: 6-9 credit hour requirement for diplomas in areas 1-3
Area 1 = Written Communication, Oral Communications,
or Heritage/Humanities .................................................. 3
Area 2 = Social/Behavioral Sciences, Natural Sciences, or
Quantitative Reasoning ..................................................3
Subtotal 6

Technical Courses:
Computer/Digital Literacy course OR demonstrated competency ...........................................0-3
BRX 220 Blueprint Reading for Construction .........................3
ISX 100 Industrial Safety OR ............................................3
ISX 101 Introduction to Industrial Safety ......................... (3)
MSY 105 Introductory Masonry ......................................3
MSY 115 Intermediate Masonry ....................................3
MSY 199 Cooperative Education OR .................................3
MSY 198 Practicum ...................................................... (3)
MSY 205 Advanced Masonry ..........................................3
MSY 215 Masonry Lab ....................................................3
MSY 225 Brick Construction ..........................................3
MSY 235 Special Techniques in Brick Construction ............3
MSY 245 Anchors and Reinforcement ...............................3
MSY 275 Fireplace Construction ....................................3
MSY 298 Cooperative Education OR .................................3
MSY 299 Cooperative Education OR .................................3
MSY 298 Practicum ...................................................... (3)
Technical Electives* .....................................................6
Subtotal 42-45

Total Credits 48-51

Electives (Optional):
MSY 291 Special Problems III ........................................ (1-3)

Certificates

Bricklayer Trainee - 4601013019
(Offered at BLC, BSC, JFC)

ISX 100 Industrial Safety OR ............................................3
ISX 101 Introduction to Industrial Safety ......................... (3)
MSY 105 Introductory Masonry ......................................3
MSY 115 Intermediate Masonry ....................................3
MSY 199 Cooperative Education OR .................................3
MSY 198 Practicum ...................................................... (3)
MSY 205 Advanced Masonry ..........................................3
MSY 215 Masonry Lab ....................................................3
MSY 225 Brick Construction ..........................................3
MSY 235 Special Techniques in Brick Construction ............3
MSY 245 Anchors and Reinforcement ...............................3
MSY 275 Fireplace Construction ....................................3
MSY 299 Cooperative Education OR .................................3
MSY 298 Practicum ...................................................... (3)

Total Credits 27

Bricklayer Helper - 4601013029
(Offered at BLC, BSC, JFC)

ISX 100 Industrial Safety OR ............................................3
ISX 101 Introduction to Industrial Safety ......................... (3)
MSY 105 Introductory Masonry ......................................3
MSY 215 Masonry Lab ....................................................3
MSY 225 Brick Construction ..........................................3
MSY 235 Special Techniques in Brick Construction ............3
MSY 245 Anchors and Reinforcement ...............................3
MSY 275 Fireplace Construction ....................................3
MSY 299 Cooperative Education OR .................................3
MSY 298 Practicum ...................................................... (3)

Total Credits 12

Construction Bricklayer - 4601013039
(Offered at BLC, BSC, JFC)

BRX 220 Blueprint Reading for Construction .........................3
ISX 100 Industrial Safety OR ............................................3
ISX 101 Introduction to Industrial Safety ......................... (3)
MSY 105 Introductory Masonry ......................................3
MSY 115 Intermediate Masonry ....................................3
MSY 199 Cooperative Education OR .................................3
MSY 198 Practicum ...................................................... (3)
MSY 205 Advanced Masonry ..........................................3
MSY 215 Masonry Lab ....................................................3
MSY 225 Brick Construction ..........................................3
MSY 235 Special Techniques in Brick Construction ............3
MSY 245 Anchors and Reinforcement ...............................3
MSY 257 Masonry Floors and Steps ................................3
MSY 257 Stone ..........................................................3
MSY 257 Fireplace Construction ....................................3

Total Credits 36

Stone Mason - 4601013049
(Offered at BLC, BSC, JFC)

BRX 220 Blueprint Reading for Construction .........................3
MSY 105 Introductory Masonry ......................................3
MSY 115 Intermediate Masonry ....................................3
MSY 205 Advanced Masonry ..........................................3
MSY 215 Masonry Lab ....................................................3
MSY 245 Anchors and Reinforcement ...............................3
MSY 253 Masonry Floors and Steps ................................3
MSY 257 Stone ..........................................................3
MSY 275 Fireplace Construction ....................................3

Total Credits 27
A Mechatronic Systems Operating Technician will function as a well-grounded machine operator in a complex system, with responsibility for efficient operation of the equipment with minimal down-times.

Certificate

Mechatronic Systems Operating Technician - 1504033119

(Offered at JFC, SKY, WKC)

MBS 100 Introduction to Mechatronic Systems ........................................ (4)
MBS 110 Mechatronic Systems Mechanical Components .......................... 4
MBS 120 Mechatronic Systems Electrical Components .............................. 4
MBS 130 Mechatronic Systems Hydraulic / Pneumatic Components ......... 4
MBS 150 Mechatronic Systems Programmable Controllers ....................... 4
Total Credits 16

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.

AHS 109 Introduction to Body Structure and Functions OR .................. 4
BIO 130 Aspects of Human Biology OR .............................................. (3)
BIO 135 Basic Anatomy and Physiology with Laboratory OR .................. (4)
BIO 137 Human Anatomy and Physiology I AND ............................... (4)
BIO 139 Human Anatomy and Physiology II ..................................... (4)
AHS 115 Medical Terminology OR ..................................................... 3
MIT 103 Medical Office Terminology .................................................... (3)
MIT 110 Medical Office Terminology .................................................... (3)
MIT 120 Medical Coding AND ........................................................... (3)
MIT 125 Medical Coding AND ........................................................... (3)
MBS 199 Internship ........................................................................... 0-8
Total Credits 23-38

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, JFC, OWC)

Required General Education:

MAT 105 Mathematics for Business OR .............................................. 3
MAT 110 Applied Mathematics OR ..................................................... (3)
BIO 135 Basic Anatomy and Physiology with Laboratory OR ............. 4
BIO 137 Human Anatomy & Physiology I AND ............................... (4)
BIO 139 Human Anatomy & Physiology II ..................................... (4)
PSY 110 General Psychology ............................................................ 3
ENG 101 Writing I ............................................................................. 3
Heritage/Humanities ......................................................................... 3
Subtotal 16-20
### Additional Suggested General Education Courses (Not Required)

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<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>(3)</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
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### Support Classes

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Health Care Professionals OR</td>
<td>1</td>
</tr>
<tr>
<td>KHP 190</td>
<td>First Aid and Emergency Care</td>
<td>(2)</td>
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**NOTE:** Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

### Core Courses

<table>
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<tr>
<td>MAI 105</td>
<td>Introduction to Medical Assisting</td>
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<td>MAI 120</td>
<td>Medical Assisting Laboratory Techniques I</td>
<td>3</td>
</tr>
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<td>MAI 140</td>
<td>Medical Assisting Clinical Procedures I</td>
<td>4</td>
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<tr>
<td>MAI 150</td>
<td>Medical Assisting Administrative Procedures I OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
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<tr>
<td>MAI 170</td>
<td>Dosage Calculations</td>
<td>2</td>
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<tr>
<td>MAI 200</td>
<td>Pathophysiology for the Medical Assistant</td>
<td>3</td>
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<tr>
<td>MAI 220</td>
<td>Medical Assisting Laboratory Techniques II</td>
<td>3</td>
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<tr>
<td>MAI 230</td>
<td>Medical Insurance OR</td>
<td>3</td>
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<tr>
<td>MIT 104</td>
<td>Introduction to Medical Insurance</td>
<td>(3)</td>
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<td>MAI 240</td>
<td>Medical Assisting Clinical Procedures II</td>
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<td>MAI 250</td>
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<td>MAI 284</td>
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**Total Credits 61-68**

### Elective Courses:

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<td>Medical Transcription</td>
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<td>MAI 299</td>
<td>Selected Topics: Medical Assisting: (Topic)</td>
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### Medical Office Insurance Billing and Coding - 5108013049

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<tr>
<td>AHS 120</td>
<td>Medical Terminology OR</td>
<td>(1)</td>
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<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>
<td>(3)</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology Laboratory 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>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
</tr>
<tr>
<td>MAI 150</td>
<td>Medical Assisting Administrative Procedures I OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
</tr>
<tr>
<td>MAI 230</td>
<td>Medical Insurance OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 104</td>
<td>Introduction to Medical Insurance</td>
<td>(3)</td>
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<td>MAI 250</td>
<td>Medical Assisting Administrative Procedures II OR</td>
<td>3</td>
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<tr>
<td>MIT 227</td>
<td>Medical Office Software</td>
<td>(3)</td>
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<tr>
<td>MAI 281</td>
<td>Medical Assisting Practicum</td>
<td>1</td>
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### Medical Office Administrative Assistant - 5108013069

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<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>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
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<tr>
<td>MIT 105</td>
<td>Introduction to Medical Assisting</td>
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<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
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<td>MAI 230</td>
<td>Medical Insurance OR</td>
<td>3</td>
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<td>MIT 250</td>
<td>Medical Assisting Administrative Procedures II OR</td>
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<tr>
<td>MIT 227</td>
<td>Medical Office Software</td>
<td>(3)</td>
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<tr>
<td>MAI 281</td>
<td>Medical Assisting Practicum</td>
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<tr>
<td>Digital Literacy</td>
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<td><strong>Total Credits</strong></td>
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### Diploma

**Medical Assisting - 5108014020**

<table>
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<td>Medical Office Software</td>
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<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
</tr>
<tr>
<td>MAI 230</td>
<td>Medical Insurance OR</td>
<td>3</td>
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<tr>
<td>MIT 250</td>
<td>Medical Assisting Administrative Procedures II OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 227</td>
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<td>(3)</td>
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<tr>
<td>MAI 281</td>
<td>Medical Assisting Practicum</td>
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<tr>
<td>Digital Literacy</td>
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**Academic Curricula**

### General Education:

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<td>Basic Anatomy and Physiology with Laboratory OR</td>
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<td>Human Anatomy &amp; Physiology I AND</td>
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<td>BIO 139</td>
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<td>ENG 101</td>
<td>Writing I OR</td>
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### Support Classes

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<tbody>
<tr>
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<td>Medical Terminology OR</td>
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<tr>
<td>AHS 120</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Health Care Professionals OR</td>
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<tr>
<td>KHP 190</td>
<td>First Aid and Emergency Care</td>
<td>(2)</td>
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<td>Digital Literacy</td>
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**NOTE:** Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.
AHS 115 Medical Terminology OR ...........................................3
AHS 120 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 AND ......................4
CPR 100 CPR for Healthcare Professionals OR .........................1
KHP 190 First Aid and Emergency Care ..................................(2)
MAI 140 Medical Assisting Clinical Procedures I OR .................4
MAI 240 Medical Assisting Clinical Procedures II .....................4
MAI 281 Medical Assisting Practicum ....................................1
Total Credits 11-18

NOTE: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

MOR 100 Medical Office Limited Radiography ............................6
MOR 115 Medical Office Limited Radiography Lab ......................3
MOR 117 Advanced Medical Office Limited Radiography .............6
MOR 119 Advanced Medical Office Limited Radiography Clinical ...3
Total Credits 18

PHB 100 Phlebotomy ..........................................................6
PHB 155 Phlebotomy Clinical ...............................................2-3
Total Credits 8-9

OR
MAI 120 Medical Assisting Laboratory Techniques I .................3
PHB 155 Phlebotomy Clinical ...............................................2-3
Total Credits 5-6

OR
MAI 120 Medical Assisting Laboratory Techniques I .................3
PHB 152 Phlebotomy: Clinical Experience ...............................1
Total Credits 4

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.aaals.org (E-mail): info@naacls.org.

Henderson Community College, Madisonville Community 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.

BIO 135 Basic Anatomy & Physiology with Laboratory* ............4
MLT 112 Urinalysis .........................................................2
MLT 115 Serology ..........................................................2
MLT 215 Hematology I AND ............................................4
MLT 216 Hematology II OR .............................................3
MLT 217 Fundamentals of Hematology AND .........................(3)
MLT 218 Clinical Hematology ............................................(4)
MLT 225 Immunohematology I AND ....................................2
MLT 226 Immunohematology II OR ..................................2
MLT 227 Immunohematology ............................................(4)
MLT 278 Practicum ..........................................................4
Pathway 1 .................................................................4
Pathway 2 .................................................................5
Subtotal 23-27

*BIO 135 & BIO 139 may be substituted for BIO 135

Pathway I-511004703
(Offered at SMC, SEC, HEC)
BIO 225 Medical Microbiology .............................................4
MLT 101 Introduction to the Clinical Laboratory AND ...............3
PHB 151 Phlebotomy for the Health Care Worker AND ..........1
PHB 152 Phlebotomy: Clinical Experience ............................1
MLT 205 Clinical Microbiology I AND ................................3
MLT 206 Clinical Microbiology II .......................................2
MLT 233 Clinical Chemistry I AND ....................................3
MLT 234 Clinical Chemistry II ..........................................2
MLT 279 Practicum II ....................................................4
Subtotal 23

Total Credit Hours – Pathway I 64-68
### Pathway II - 511004704

**Technical Core:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLT 207</td>
<td>Introduction to Clinical Diagnostic Microbiology</td>
<td>2</td>
</tr>
<tr>
<td>PHB 170</td>
<td>Applied Phlebotomy AND</td>
<td>3</td>
</tr>
<tr>
<td>PHB 152</td>
<td>Phlebotomy Clinical Experience</td>
<td>1</td>
</tr>
<tr>
<td>MLT 208</td>
<td>Clinical Diagnostic Microbiology I AND</td>
<td>3</td>
</tr>
<tr>
<td>MLT 209</td>
<td>Clinical Diagnostic Microbiology II</td>
<td>2</td>
</tr>
<tr>
<td>MLT 247</td>
<td>Introduction to Clinical Chemistry AND</td>
<td>3</td>
</tr>
<tr>
<td>MLT 248</td>
<td>Advanced Clinical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MLT 279</td>
<td>Practicum II</td>
<td>3</td>
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**Support Courses:**

- Digital Literacy: 0-3
- Higher Quantitative Reasoning course: 3

**Total Credit Hours – Pathway II:** 64-68

---

### Certificate - 5110043019

**Phlebotomist**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PHB 100</td>
<td>Phlebotomy</td>
<td>6</td>
</tr>
<tr>
<td>PHB 155</td>
<td>Phlebotomy Clinical</td>
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**Total:** 8-9

---

### Certificate - 5110043039

**Phlebotomy for the Health Care Worker**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PHB 151</td>
<td>Phlebotomy AND</td>
<td>1</td>
</tr>
<tr>
<td>PHB 152</td>
<td>Phlebotomy: Clinical Experience AND</td>
<td>1</td>
</tr>
<tr>
<td>MLT 101</td>
<td>Introduction to the Clinical Laboratory OR</td>
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</tr>
<tr>
<td>PHB 170</td>
<td>Applied Phlebotomy AND</td>
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<td>PHB 152</td>
<td>Phlebotomy: Clinical Experience</td>
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**Total:** 4-5

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### Certificate - 5110044029

**Certified Medical Laboratory Assistant**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory*</td>
<td>4</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology OR</td>
<td>4</td>
</tr>
<tr>
<td>MLT 207</td>
<td>Introduction to Clinical Diagnostic Microbiology</td>
<td>2</td>
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</table>

**Support Courses:**

- Digital Literacy: 0-3

**Total Credit Hours:** 22-26

### Certificates

**Physician’s Office Laboratory - 5110043029**

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>PHB 151</td>
<td>Phlebotomy AND</td>
<td>1</td>
</tr>
<tr>
<td>PHB 152</td>
<td>Phlebotomy Clinical Experience AND</td>
<td>1</td>
</tr>
<tr>
<td>MLT 101</td>
<td>Introduction to the Clinical Laboratory OR</td>
<td>3</td>
</tr>
<tr>
<td>PHB 170</td>
<td>Applied Phlebotomy AND</td>
<td>3</td>
</tr>
<tr>
<td>PHB 152</td>
<td>Phlebotomy Clinical Experience</td>
<td>1</td>
</tr>
<tr>
<td>MLT 112</td>
<td>Urinalysis</td>
<td>2</td>
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<tr>
<td>MLT 115</td>
<td>Serology</td>
<td>2</td>
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</table>

**Total:** 8-9

---

**Phlebotomy for the Health Care Worker - 5110043039**

**Mining Technology - 1509017019**

**General Education:**

- Writing I: 3
- Quantitative Reasoning course*: 3
- Social/Behavioral Sciences course: 3

**Natural Sciences:**

- Physical Geology AND: 3
- Laboratory for Physical Geology OR: 1

**Heritage/Humanities:**

- Natural Sciences: 4
- Subtotal: 16

**Technical Core:**

- Digital Literacy: 3
- Introduction to Mine Engineering and Mining Technology: 3
- Elements of Underground Mining: 3
- Elements of Surface Mining: 2
- Mining Laws: 3

**Certificates:**

- Digital Literacy: 3
- Higher Quantitative Reasoning course*: 3
- Social/Behavioral Sciences course: 3
- Laboratory for Physical Geology OR: 1
- Natural Sciences: 4
- Subtotal: 16

---

*Note: MAT 150 is required for Engineering Operations Track and Supervisors Track.*
# Operators Track – 150901702

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment I</td>
<td>3</td>
</tr>
<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment I Lab</td>
<td>2</td>
</tr>
<tr>
<td>MNG 161</td>
<td>Elements of Underground Mining Lab</td>
<td>1-3</td>
</tr>
<tr>
<td>MNG 171</td>
<td>Elements of Surface Mining Lab</td>
<td>1-3</td>
</tr>
<tr>
<td>Technical Electives*</td>
<td></td>
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**Subtotal**: 26

**Total Credits**: 60-66

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# Electricians Track - 150901703

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<th>Credits</th>
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<tbody>
<tr>
<td>MNG 123</td>
<td>Mining Electricity AND</td>
<td>4</td>
</tr>
<tr>
<td>MNG 125</td>
<td>Mining Electricity I Lab</td>
<td>3</td>
</tr>
<tr>
<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
<td>3</td>
</tr>
<tr>
<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELT 244</td>
<td>Electrical Machinery and Controls OR</td>
<td>4</td>
</tr>
<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment I</td>
<td>3</td>
</tr>
<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment I Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELT 250</td>
<td>Programmable Logic Controllers</td>
<td>4</td>
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<tr>
<td>Technical Electives*</td>
<td></td>
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**Subtotal**: 20

**Total Credits**: 62

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# Supervisors Track - 150901704

<table>
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<tr>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>MNG 286</td>
<td>Roof Control and Ventilation</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
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<tr>
<td>Technical Electives*</td>
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<td>8</td>
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</table>

**Subtotal**: 20

**Total Credits**: 62

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# Mechanics Track - 150901705

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ELT 265</td>
<td>Applied Fluid Power OR</td>
<td>3</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</td>
<td>2</td>
</tr>
<tr>
<td>ELT 122</td>
<td>Mechanical Power Transmission Systems</td>
<td>3</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment I</td>
<td>3</td>
</tr>
<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment I Lab</td>
<td>2</td>
</tr>
<tr>
<td>Technical Electives</td>
<td></td>
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</table>

**Subtotal**: 20-23

**Total Credits**: 62-65

---

# Engineering Operations Track - 150901701

*(Offered at BSC, MDC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MA 112</td>
<td>Trigonometry OR</td>
<td>2</td>
</tr>
<tr>
<td>MAT 155</td>
<td>Trigonometry</td>
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<tr>
<td>FPX 101</td>
<td>Blueprint Reading course</td>
<td>2-3</td>
</tr>
<tr>
<td>MNG 286</td>
<td>Roof Control and Ventilation</td>
<td>3</td>
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<tr>
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**Subtotal**: 19-21

**Total Credits**: 61-63

*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.

---

# Underground Mining Repair Technology - 1509014019

*(Offered at BSC, MDC)*

**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 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.

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# Certificates

**Underground Operator 1509013129** *(Offered at BSC, MDC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNG 160</td>
<td>Elements of Underground Mining</td>
<td>3</td>
</tr>
<tr>
<td>MNG 161</td>
<td>Elements of Underground Mining Lab</td>
<td>1-3</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance OR</td>
<td>3</td>
</tr>
<tr>
<td>WPP 200</td>
<td>Workplace Principles ....................................</td>
<td>(3)</td>
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</table>

**Total Credits**: 7-9
Natural Gas Technology

Construction and Maintenance Technician

This program prepares students for performing job tasks in five functional areas of pipeline construction and maintenance; work related safety, installing and inspecting gas distribution piping, maintenance on gas pipelines, placing pipelines into service and installing and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are “operator qualified” on related covered tasks according to 49CFR, Part 192, Subpart N.

Gas Service Technician

This program prepares students for job related tasks in six functional areas of natural gas service; work related safety, installing and maintaining customer services lines and meter and regulator sets, installing gas operated equipment, installing and inspecting gas distribution piping and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are “operator qualified” on related covered tasks according to 49CFR, Part 192, Subpart N.

Leakage and Corrosion Control Technician

This program prepares students for performing job tasks in four functional areas of natural gas leakage and corrosion control; work related safety, investigating and controlling gas leaks, installing cathodic protection systems, and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are “operator qualified” on related covered tasks according to 49CFR, Part 192, Subpart N.

Measurement and Regulation Technician

This program prepares students for performing job tasks in five functional areas of natural gas measurement and regulation; work related safety, basic gas laws, maintaining gas metering systems, maintaining gas regulation systems, and maintaining recording instruments. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level.
## Nuclear Medicine and Molecular Imaging Technology

The Nuclear Medicine and Molecular Imaging Technology (NMMIT) program prepares the individual to work in the field of Nuclear Medicine and Molecular Imaging. Nuclear Medicine and Molecular Imaging is the medical specialty that utilizes the nuclear properties of radioactive and stable nuclides to make diagnostic evaluation of the anatomic or physiologic conditions of the body and to provide therapy with unsealed radioactive materials. The skills of the nuclear medicine technologist complement those of the nuclear medicine physician and other professionals in the field. Nuclear medicine technologists have responsibilities in the following areas: (a) patient care and monitoring, (b) technical skills related to radiation safety, radiopharmacy, clinical instrumentation, diagnostic and therapeutic procedures (including hybrid imaging and emerging technologies), quality control, and computers, and (c) administrative functions related to supplies and equipment, documentation of operations related to disposition of radioactive materials, quality control data, and patient records.

The NMMIT program is a selective admission program. A student must earn a grade of C or better in the prerequisite and concurrent mathematics and science courses to be admitted to and to remain enrolled in the program. Also, a student must earn a grade of C or better in each of the NMMIT courses to be retained in the program. After graduation from the program, the individual is eligible to write either the Nuclear Medicine Technology Certification Board (NMTCB) or the American Registry of Radiologic Technologists (ARRT) nuclear medicine technology examination to earn credentials. Please see the guidelines for the selective admission requirements to the Nuclear Medicine and Molecular Imaging Technology program.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first NMI course.

### Note:
Hours Exception (71-73 for the A.A.S.) approved by the KCTCS Board of Regents prior to enrolling in the first NMI course.

### Associate in Applied Science

**Nuclear Medicine and Molecular Imaging Technology - 5109057039**

(Offered at BLC)

#### General Education:

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<tr>
<td>ENG 102</td>
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<td>MAT 150</td>
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<td>CHE 140</td>
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<td>CHE 150</td>
<td>3</td>
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<td>1</td>
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<td>BIO 139</td>
<td>4</td>
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<tr>
<td>PHY 171</td>
<td>4</td>
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<td>PHY 172</td>
<td>(2)</td>
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<td>BIO 137</td>
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<td>BIO 139</td>
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<td>PHY 171</td>
<td>4</td>
</tr>
<tr>
<td>PHY 172</td>
<td>(3)</td>
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<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<tr>
<td>Oral Communications Course</td>
<td>3</td>
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#### Technical Courses:

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<tr>
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<tbody>
<tr>
<td>NMI 140</td>
<td>2</td>
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<tr>
<td>NMI 141</td>
<td>2</td>
</tr>
<tr>
<td>NMI 142</td>
<td>1</td>
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<tr>
<td>NMI 150</td>
<td>2</td>
</tr>
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<td>NMI 170</td>
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<tr>
<td>IMG 230</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</tr>
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</table>

### Total Credits: 71-73

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### Nursing

The Associate Degree Nursing program prepares graduates to use their skill and knowledge to fulfill the role of the nurse: enhance human flourishing, demonstrate sound nursing judgment, continually develop professional identity, and possess a spirit of inquiry to improve the quality of patient care. Encompassed within these roles are the core components of context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. These core components are introduced, developed and built upon through the curriculum. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The Associate Degree Nursing curriculum is organized around a clearly defined conceptual framework and combines general education and nursing courses. The nursing courses correlate classroom and clinical instruction in a variety of community agencies.

Acceptance into the Associate Degree Nursing program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements prior to March 1 for admission to a fall NSG 101 course (July 1 for admission to a spring NSG 101 course).

Progression in the Associate Degree Nursing program is contingent upon achievement of a grade of “C” or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, and documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

*Transportation to the community agencies is the responsibility of each student.

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the NCLEX-RN Exam if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

The following Associate Degree Nursing programs are accredited by the Accreditation Commission for Education in Nursing 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326, www.acenursing.org, telephone: (404) 975-5000: Ashland Community and Technical College, Bluegrass Community and Technical College, Elizabethtown Community and Technical College, Henderson Community College, Hopkinsville Community College, Jefferson Community and Technical College, Madisonville Community College, Somerset Community College, Southeast Kentucky Community and Technical College, West Kentucky Community and Technical College.
**Technical Courses:**

**Associate in Applied Science**

**Nursing - 5138017009**

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

**General Education for 2017-2018 Academic Year:**

**BIO 137** Human Anatomy & Physiology I ...................................4

**BIO 139** Human Anatomy & Physiology II ..................................4

**BIO 225** Medical Microbiology ..............................................4

**MAT 150** College Algebra ..................................................3

**PSY 110** General Psychology ................................................3

**PSY 223** Developmental Psychology .....................................3

Written Communication Courses ...........................................6

Oral Communications Course .............................................3

Heritage/Humanities Course ..............................................3

**Subtotal** 33

**General Education for 2018-2019 Academic Year:**

**BIO 137** Human Anatomy & Physiology I ...................................4

**BIO 139** Human Anatomy & Physiology II ..................................4

**BIO 225** Medical Microbiology ..............................................4

**MAT 150** College Algebra ..................................................3

**PSY 110** General Psychology ................................................3

Written Communication Courses ...........................................6

Oral Communications Course .............................................3

Heritage/Humanities Course ..............................................3

**Subtotal** 24

*The Nursing Standard Pathway (513801705) will implement the 24 credit hour General Education requirement beginning in the 17/18 academic year.

**Nursing Modular Pathway- 513801704**

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

**Technical Courses:**

**NSG 101** ***Nursing Practice I .............................................9

**NSG 210** ***Medical/Surgical Nursing I OR .................................6

**NSG 197** ** LPN – ADN Bridge OR ...........................................3

**NSG 199** ** Accelerated LPN – ADN Bridge Course .......................2

**NSG 211** Maternal Newborn Nursing .........................................3

**NSG 212** Behavioral Health Nursing .........................................3

**NSG 213** Pediatric Nursing ..................................................3

**NSG 215** Pharmacology I ....................................................1

**NSG 220** Medical/Surgical Nursing II ......................................6

**NSG 225** Pharmacology II ....................................................1

**NSG 230** Medical/Surgical Nursing III .....................................6

**Subtotal** 38

**Total Credits** 71

**Technical Courses:**

**NSG 206** ***Nursing Two OR ..................................................9

**NSG 196** **LPN – ADN Bridge ..................................................9

**NSG 236** (Family Nursing) Nursing Three .................................5

**NSG 246** Nursing Four .........................................................9

**NSG 216** Nursing Pharmacology I AND ...................................1

**Nursing Assistant – Advanced**

**(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MYC, OWC, WKC)**

**Certificate**

**Advanced Nursing Assistant - 5139023019**

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

**Available Completely Online**

**NAA 125** Advanced Nursing Assistant OR .................................6

**NAA 100** Nursing Assistant Skills I AND ................................3

**NAA 115** Nursing Assistant Skills II OR ...................................3

**MNA 100** Medicaid Nurse Aide AND .......................................3

**NAA 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 will be admitted to the associate degree level.

Proof of active status on the Kentucky Medicaid Nurse Aide Registry or its equivalent is required prior to enrolling in the first nursing course. CPR certificate for Health Care Providers/Professional Rescuer must be obtained prior to enrolling in the first nursing course and certification must be kept current throughout the program. Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Progression in the nursing program is contingent upon achievement of a grade of “C” or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the National Council Licensure Examination for Registered Nurses (NCLEX Exam) if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

Note: Hours Exception (69.72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2010.

**Associate in Applied Science**

**Academic/Career Mobility Program in Nursing - 5138017049**

(Original at SKY)

General Education Courses:

- BIO 137 Human Anatomy & Physiology I ............................................. 4
- BIO 139 Human Anatomy & Physiology II ............................................. 4
- BIO 225 Medical Microbiology OR .................................................... 4
- BIO 227 Principles of Microbiology with Laboratory ......................... 3
- MAT 150 College Algebra .................................................................. 3
- PSY 110 General Psychology .......................................................... 3
- PSY 223 Developmental Psychology .................................................. 3
- ENG 101 Writing I ........................................................................... 3
- AHS 115 Medical Terminology ......................................................... 3
- NRS 101 Nursing Care I ................................................................. 9
- NRS 102 Nursing Care II ............................................................... 10
- NRS 200 **LPN to ADN Transition** .................................................. (3)
- NRS 203 Nursing Care III ............................................................... 9
- NRS 204 Nursing Care IV ............................................................... 10

Subtotal 38

Total CREDITS: 71-72

**Technical Courses**

- NRS 101 Nursing Care I ................................................................. 9
- NRS 102 Nursing Care II ............................................................... 10
- NRS 200 **LPN to ADN Transition** .................................................. (3)
- NRS 203 Nursing Care III ............................................................... 9
- NRS 204 Nursing Care IV ............................................................... 10

Subtotal 38

Total CREDITS: 71-72

**Taken only by Licensed Practical Nurses who have been admitted to the program and have and have met the pre-requisites.

Note: Documentation of computer/digital literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Proof of active status on the Kentucky Medicaid Nurse Aide Registry or its equivalent is required prior to enrolling in the first nursing course. CPR certificate for Health Care Providers/Professional Rescuer must be obtained prior to enrolling in the first nursing course and certification must be kept current throughout the program.

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...
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 Madisonville Community College Associate Degree Nursing program is currently accredited by:


**Note:** Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2010.

### Associate in Applied Science

**Nursing - 5138017069**

*Offered at MDC*

**General Education:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory*</td>
<td>4</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</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>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
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**Technical or Support Courses:**

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NAA 100</td>
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<td>0-3</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>NIP 103</td>
<td>Introduction of Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>NIP 116</td>
<td>Fundamentals of Nursing</td>
<td>10</td>
</tr>
<tr>
<td>AHS 100</td>
<td>Human Growth and Development**</td>
<td>2</td>
</tr>
<tr>
<td>NIP 129</td>
<td>Medical Surgical Alteration</td>
<td>11</td>
</tr>
<tr>
<td>NIP 140</td>
<td>Practical Nursing Role Transition</td>
<td>6</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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<td><strong>34-37</strong></td>
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</table>

**Total Credits:** 44-47

**Certificate:**

**Medicaid Nurse Aide – 5139012020**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</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>NAA 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>
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<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>3-6</strong></td>
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</table>

**Kentucky Medication Aide – 5139012030**

<table>
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<th>Course Name</th>
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<tbody>
<tr>
<td>KMA 100</td>
<td>Kentucky Medication Aide</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
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</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.

**AHA Advanced Cardiac Life Support – 5139012050**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NIP 220</td>
<td>Advanced Cardiac &amp; Emergent Care</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
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</table>

### Diploma

**Practical Nursing - 5139014049**

*Offered at MDC*

**General Education:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 110</td>
<td>Basic Anatomy and Physiology with Laboratory*</td>
<td>4</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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**Technical or Support Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I or equivalent</td>
<td>0-3</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
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<tr>
<td>NIP 103</td>
<td>Introduction of Pharmacology</td>
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<td>NIP 116</td>
<td>Fundamentals of Nursing</td>
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<tr>
<td>AHS 100</td>
<td>Human Growth and Development**</td>
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<tr>
<td>NIP 129</td>
<td>Medical Surgical Alteration</td>
<td>11</td>
</tr>
<tr>
<td>NIP 140</td>
<td>Practical Nursing Role Transition</td>
<td>6</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>34-37</strong></td>
</tr>
</tbody>
</table>

**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 State Nurse Aide Registry at time of admission. *BIO 137 and BIO 139 may be substituted for BIO 135. **PSY 223 may be substituted for AHS 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. Use of the nursing process at the practical nursing level toward the maintenance of health and prevention of illness, the observation and nursing care of persons experiencing changes in their health processes, and the evaluation of health practices of patients are emphasized.

Classroom instruction in theory and basic nursing skills is provided on campus. Under the guidance of program faculty, students gain valuable experience in the care of all ages in a variety of health care settings and/or community agencies - hospitals, long-term care facilities, clinics and
child care centers. (Transportation to the community agencies is the responsibility of each student.)

Acceptance in the Practical Nursing program is based on a selective admission process.

Progression in the Practical Nursing program is contingent upon achievement of a grade of "C" or better in each course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of active status on the Medicaid Nurse Aide Registry or successful completion of an equivalent course within the previous three years is required prior to enrolling in the first nursing course.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Note: The Kentucky Board of Nursing (KBN) may deny a nursing graduate admission to the NCLEX-PN Exam if an individual has been convicted of a misdemeanor or felony that involves acts that bear directly on the qualifications of the graduate to practice nursing.

### Diploma

**Practical Nurse - 5139014039**
*(Offered at ASC, BSC, GTW, HPC, HZC, JFC, MYC, SKY, SMC, WKC)*

**Practical Nurse Pathway 1 – Traditional - 513901401**
*(Offered at BLC, GTW, HZC, JFC, SKY, SMC)*

#### General Education:

<table>
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<tr>
<th>Area 1</th>
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<tbody>
<tr>
<td>TEC 200</td>
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<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
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<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory OR</td>
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<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>
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<tr>
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</table>

#### Technical Core:

| AHS 100 | Human Growth & Development OR | 2 |
| PSY 110 | General Psychology AND | 3 |
| PSY 223 | Developmental Psychology | 3 |
| NPN 100 | Introduction to Nursing & Health Care System AND | 2 |
| NPN 105 | Development of Care Giver Role AND | 6 |
| NPN 110 | Pharmacology I OR | 2 |
| NPN 115 | Practical Nursing Bridge Course | 6 |
| NPN 125 | Mental Health | 3 |
| NPN 130 | Pharmacology II | 3 |
| NPN 135 | Introduction to Health Deviations | 6 |
| NPN 200 | Med-Surg I | 5 |
| NPN 201 | Child Bearing Family | 3 |
| NPN 205 | Med-Surg II | 5 |
| NPN 210 | Clinical Practicum | 4 |
| NPN 215 | Nursing Trends & Issues | 1 |
| **Subtotal** | 38-46 |

**Total Credits: 45-58**

*Recommended Electives:

| FHM 100 | Dosage Calculations | 2 |
| MAT 110 | Applied Math | 3 |
| AHS 105 | Introductions to Health Occupations | 3 |
| AHS 130 | Infection Control | 2 |
| NSG 299 | Selected Topics in Nursing: (Topic) | 1-4 |

**Practical Nurse – Pathway 2 – Traditional Modified - 513901402**
*(Offered at ASC, BSC, HPC, MYC, WKC)*

#### General Education:

<table>
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<tbody>
<tr>
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<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
<td>3</td>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
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<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory OR</td>
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<tr>
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#### Technical Core:

| AHS 100 | Human Growth & Development OR | 2 |
| PSY 110 | General Psychology AND | 3 |
| PSY 223 | Developmental Psychology | 3 |
| AHS 120 | Medical Terminology OR | 1 |
| AHS 115 | Medical Terminology OR | 3 |
| CLA 131 | Medical Terminology from Greek and Latin OR | 3 |
| MIT 103 | Medical Office Terminology | 3 |
| NPN 101 | Nursing Fundamentals AND | 6 |
| NPN 111 | Pharmacology OR | 3 |
| NPN 115 | Practical Nursing Bridge Course | 6 |
| NPN 125 | Mental Health | 3 |
| NPN 135 | Introduction to Health Deviations | 6 |
| NPN 201 | Child Bearing Family | 3 |
| NPN 202 | Med-Surg I Alterations | 6 |
| NPN 206 | Med-Surg II Alterations | 6 |
| NPN 210 | Clinical Practicum | 4 |
| NPN 215 | Nursing Trends & Issues | 1 |
| **Subtotal** | 38-47 |

**Total Credits: 45-57**

*Recommended Electives:

| FHM 100 | Dosage Calculations | 2 |
| MAT 110 | Applied Math | 3 |
| AHS 105 | Introductions to Health Occupations | 3 |
| AHS 130 | Infection Control | 2 |
| NSG 299 | Selected Topics in Nursing: (Topic) | 1-4 |

**Practical Nurse – Pathway 3 – Modular - 513901403**

#### General Education:

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<tr>
<td>Area 2</td>
<td>Human Anatomy &amp; Physiology I</td>
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<td>BIO 137</td>
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<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
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<tr>
<td>MAT 110</td>
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#### Technical Core:

| PSY 223 | Developmental Psychology | 3 |
| AHS 115 | Medical Terminology OR | 3 |
| CLA 131 | Medical Terminology from Greek and Latin OR | 3 |
| NPN 106 | Fundamentals of Nursing Care | 6 |
| NPN 108 | Pharmacology in Nursing | 3 |
| NPN 125 | Mental Health | 3 |
| NPN 140 | Nursing Care I | 3 |
| NPN 201 | Child Bearing Family | 3 |
| NPN 208 | Nursing Care II | 10 |
| NPN 210 | Clinical Practicum | 4 |
| NPN 215 | Nursing Trends & Issues | 1 |
| **Subtotal** | 39 |

**Total Credits: 56**
Occupational Therapy Assistant Program

The Occupational Therapy Assistant Program is designed to provide a quality educational experience that will train prospective professionals in the art and science of promoting and maintaining the holistic health and wellness of people, organizations, and populations through engagement in occupation. Graduates will be able to perform/engage as entry level professionals under the supervision of an Occupational Therapist (OT). Graduates will develop skills necessary for employment as Certified Occupational Therapy Assistants, thereby meeting the students’ individual needs and the expressed health-care needs of the local and extended communities served by the Colleges. The program strives to fill a growing need for professionals able to contribute to all facets of occupational therapy, from community-based programs to client-centered intervention. The program promotes the value and professional importance of life-long learning.

A basic background in natural sciences, mathematics, communication, and behavioral sciences undergirds the specialized course work. Specialized course work prepares students for the certification examination they will take to become Certified Occupational Therapy Assistants (COTA). Employment may be in hospitals, rehabilitation facilities, nursing homes, clinics, and other health care facilities, as well as within pediatric, community, or educational settings.

Acceptance into the OTA program is based on a selective admission process. In order to be considered for admission, applicants must comply with college and program admissions requirements. Students enrolled in the OTA program must achieve a minimum grade of a “C” in each OTA course and prerequisite courses.

CPR requirement must be successfully completed prior to enrolling in the first semester of OTA program. The CPR course must be Professional or Healthcare Provider.

Background check and drug screen prior to admission is required by all students, and students with a misdemeanor or felony conviction may be denied permission to access fieldwork sites.

Students will be responsible for their own transportation for fieldwork.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first OTA course.

All prerequisite courses must be complete before a student is admitted in the OTA program.

The Occupational Therapy Assistant Program is accredited by the Accreditation Council on Occupational Therapy Education (ACOTE), of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, Suite 200 Bethesda, MD 20814-3449 Phone number: (301) 652-7200 (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 (NBCCOT). 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 NBCCOT Certification Examination.

Note: An OTA graduate with a misdemeanor or felony conviction may be denied permission to access the NBCCOT certification exam. The student is responsible for contacting NBCCOT prior to admission.
The Paralegal Technology curriculum is designed to prepare a person for entry-level employment as a paralegal in courts, corporations, law firms, and government agencies. Paralegal Technology is a program of study that requires courses in the technical area. In addition, the Associate in Applied Science degree also requires general education courses.

The curriculum is based on standards developed from the National Association of Legal Assistants’ Descriptions of Certified Legal Assistant (CLA) Exam Sections. Additional research data used in the development of publication was collected from a review of related literature.

Industry standards are based on the National Association of Legal Assistants’ Descriptions of Certified Legal Assistant (CLA) Exam Sections.

The successful completion of the Paralegal Technology Program should provide the student the opportunity for employment as a paralegal in private law firms, courts, trust departments of banks, corporations, and government agencies.

Progression in the Paralegal Technology program is contingent upon achievement of a grade of "C" or better in each paralegal technical course.

Academic Curricula

Paralegal Technology – 2203023019
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 223</td>
<td>Developmental Psychology</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>Heritage/Humanities</td>
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Additional General Education (JCTC Only):

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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I</td>
<td>4</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
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Technical Core:

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>OTA 101</td>
<td>Introduction to Occupational Therapy</td>
<td>3</td>
</tr>
<tr>
<td>OTA 126</td>
<td>Level I Fieldwork</td>
<td>1</td>
</tr>
<tr>
<td>OTA 146</td>
<td>Occupational Therapy in Mental Health</td>
<td>3</td>
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<tr>
<td>OTA 136</td>
<td>Physical Dysfunction</td>
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<tr>
<td>OTA 226</td>
<td>Level II Fieldwork</td>
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<tr>
<td>OTA 246</td>
<td>Pediatric Issues in Occupation Therapy</td>
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<tr>
<td>OTA 256</td>
<td>Elder Issues in Occupation Therapy</td>
<td>2</td>
</tr>
<tr>
<td>OTA 206</td>
<td>Community Practice</td>
<td>2</td>
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<tr>
<td>OTA 236</td>
<td>Professional Transitions and Management</td>
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<tr>
<td>OTA 267</td>
<td>Level IIA Fieldwork</td>
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<td>OTA 277</td>
<td>Level IIB Fieldwork</td>
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Additional Technical Courses (JCTC only):

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<th>Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>OTA 116</td>
<td>Media Principles &amp; Procedures I</td>
<td>2</td>
</tr>
<tr>
<td>OTA 216</td>
<td>Media Principles &amp; Procedures II</td>
<td>2</td>
</tr>
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</table>

Recommended Additional Technical Courses (JFC only):

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<th>Course</th>
<th>Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>OTA 236</td>
<td>Clinical Seminar</td>
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<td><strong>Total Additional Technical Credit</strong></td>
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Alternate Pathway for JCTC/Total Credits 67

The Paralegal Technology 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.

Certificate

Paralegal Technology – 2203023019
(Offered at MDC)

<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>CIT 130</td>
<td>Computer/Digital Literacy Course</td>
<td>3</td>
</tr>
<tr>
<td>PGL 111</td>
<td>Legal Systems and Terminology</td>
<td>3</td>
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<td>PGL 112</td>
<td>Legal Research</td>
<td>3</td>
</tr>
<tr>
<td>PGL 113</td>
<td>Law Office Management</td>
<td>3</td>
</tr>
<tr>
<td>PGL 211</td>
<td>Family Law</td>
<td>3</td>
</tr>
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<td>PGL 212</td>
<td>Legal Writing</td>
<td>3</td>
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<tr>
<td>PGL 221</td>
<td>Wills and Estates</td>
<td>3</td>
</tr>
<tr>
<td>PGL 223</td>
<td>Civil Litigation I</td>
<td>3</td>
</tr>
<tr>
<td>PGL 224</td>
<td>Real Property I</td>
<td>3</td>
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<tr>
<td>PGL 225</td>
<td>Civil Litigation II</td>
<td>3</td>
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<tr>
<td>PGL 231</td>
<td>Torts</td>
<td>3</td>
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<tr>
<td>PGL 233</td>
<td>Ethics</td>
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<td><strong>Total</strong></td>
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</table>

*PSY 110 (General Psychology) OR SOC 101 (Introduction to Sociology) recommended.

**CRJ 100 (Introduction to Criminal Justice) OR CRJ 216 (Criminal Law) recommended.

Certificate
Pharmacy Technology

The pharmacy technician performs technical functions under the direction of a Registered Pharmacist; including prescription preparation, inventory, repackaging, and compounding. The essential elements of this program include the history of pharmacy, pharmacy law, medical terminology, drug classification and prescription preparation. Laboratory experience and an externship under the supervision of a licensed pharmacist are required components of the program.

Progression in the Pharmacy Technician program is contingent upon achievement of a grade of "C" or above in each required course and maintenance of a 2.0 cumulative grade-point average or above (on a 4.0 scale).

Diploma

Pharmacy Technician II - 5108054029
(Offered at ASC, BLC, HPC, JFC, SMC)

General Education:

<table>
<thead>
<tr>
<th>Area 1</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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</table>

<table>
<thead>
<tr>
<th>Area 2</th>
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</tr>
</thead>
<tbody>
<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>3</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>
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</tbody>
</table>

Subtotal | 6-11 |
|----------|------|

| CIT 105 | Computer/Digital Literacy | 0-3 |
| EFM 100 | Personal Financial Management OR | 3 |
| BAS 120 | Personal Finance OR | 3 |
| WPP 200 | Workplace Principles | 3 |
| CLA 131 | Medical Terminology from Greek and Latin OR | 3 |
| MIT 103 | Medical Office Terminology | 3 |
| PHA 110 | Pharmacy Procedures and Skills | 6 |
| PHA 145 | Pharmaceutical Calculations | 3 |
| PHA 136 | Pharmacology | 3 |
| PHA 200 | Admixtures for IV Therapy | 3 |
| PHA 205 | Admixture Preparations | 1 |
| PHA 210 | Drug Classifications | 6 |
| PHA 250 | Pharmacy Experience | 2-8 |

Subtotal | 30-39 |

Total Credits | 36-50 |

Additional Suggested Courses (Not Required):

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<tr>
<th>Course</th>
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<tr>
<td>AHS 100</td>
<td>Human Growth and Development</td>
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<tr>
<td>AHS 130</td>
<td>Infection Control</td>
</tr>
<tr>
<td>AHS 201</td>
<td>Management Principles for Allied Health Providers</td>
</tr>
<tr>
<td>AHS 203</td>
<td>Diversity in Health Care</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>KHP 190</td>
<td>First Aid and Emergency Care</td>
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</table>

Certificates

Pharmacy Technician I - 5108053029
(Offered at ASC, HPC, JFC, OWCC, SMC, WRC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication OR</td>
</tr>
<tr>
<td>COM 101</td>
<td>Introduction to Communications*</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
</tr>
<tr>
<td>PHA 110</td>
<td>Pharmacy Procedures and Skills</td>
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</table>

Total Credits | 22-25 |

Retail Pharmacy Technician - 5108053039
(Offered at ASC, HPC, JFC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication OR</td>
</tr>
<tr>
<td>COM 101</td>
<td>Introduction to Communications*</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
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<tr>
<td>PHA 110</td>
<td>Pharmacy Procedures and Skills</td>
</tr>
<tr>
<td>PHA 145</td>
<td>Pharmaceutical Calculations</td>
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<tr>
<td>PHA 136</td>
<td>Pharmacology</td>
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</table>

Total Credits | 18-21 |

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.
### General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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<td>PSY 223</td>
<td>Developmental Psychology</td>
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<td>MAT 150</td>
<td>College Algebra or higher</td>
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### Technical Support Courses:

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>AHS 105</td>
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### Technical Courses:

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<tr>
<td>Digital Literacy</td>
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<tr>
<td>PTA 101</td>
<td>Orientation to Physical Therapy Practice</td>
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<td>PTA 125</td>
<td>Neuroanatomy for the PTA</td>
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<td>PTA 150</td>
<td>Functional Anatomy and Kinesiology</td>
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<tr>
<td>PTA 160</td>
<td>Medical and Surgical Conditions in Physical Therapy</td>
</tr>
<tr>
<td>PTA 170</td>
<td>Clinical Practicum I</td>
</tr>
<tr>
<td>PTA 200</td>
<td>Modalities and Procedures in Physical Therapy</td>
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<td>PTA 220</td>
<td>Physical Therapy Principles and Procedures</td>
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<td>PTA 240</td>
<td>Clinical Practicum II</td>
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<td>PTA 250</td>
<td>Neurological Rehabilitation in Physical Therapy</td>
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<td>Seminar in Physical Therapy</td>
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<td>PTA 280</td>
<td>Clinical Practicum III</td>
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### Pathway 2 - 5108067044

(Offered at MDC)

**Academic Curricula**

**Associate in Applied Science**

**Plastics Processing**

The Plastics Processing certificate will prepare students for an entry-level position in plastics processing companies.

**Certificate**

**Plastics Processing - 1506073049**

(Offered at MYC)

<table>
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<tr>
<th>Course</th>
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<tr>
<td>ITE 233</td>
<td>Statistical Process Control</td>
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<tr>
<td>ELT 107</td>
<td>Computer Applications for Technicians</td>
</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
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<tr>
<td>PL 101</td>
<td>Plastic Processes and Materials</td>
</tr>
<tr>
<td>PL 151</td>
<td>Polymer Science &amp; Testing</td>
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<tr>
<td>PL 251</td>
<td>Injection Molding OR</td>
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<tr>
<td>PL 261</td>
<td>Plastics Extrusion</td>
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<tr>
<td>Total</td>
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</tbody>
</table>

### 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)

<table>
<thead>
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<tr>
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<td>Quantitative Reasoning</td>
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<td></td>
<td>Social/Behavioral Sciences</td>
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<td></td>
<td>Heritage/Humanities</td>
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<td></td>
<td>Natural Sciences</td>
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<td></td>
<td>Oral Communications</td>
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### Technical Courses:

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<tbody>
<tr>
<td>PLB 150</td>
<td>Plumbing, Introduction to the Trade</td>
</tr>
<tr>
<td>PLB 151</td>
<td>Basic Plumbing Skills OR</td>
</tr>
<tr>
<td>PLB 100</td>
<td>Basic Theory of Plumbing</td>
</tr>
<tr>
<td>PLB 105</td>
<td>Plumbing Principles</td>
</tr>
<tr>
<td>PLB 160</td>
<td>Plumbing Systems, DWV &amp; Water</td>
</tr>
<tr>
<td>PLB 161</td>
<td>Rough-In of Plumbing Fixtures</td>
</tr>
<tr>
<td>PLB 250</td>
<td>Plumbing Appliances &amp; Fixtures</td>
</tr>
<tr>
<td>PLB 251</td>
<td>Pumps &amp; Water Heaters</td>
</tr>
<tr>
<td>PLB 260</td>
<td>Service AND</td>
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<p>| Total    |         | 193  |</p>
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<tr>
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<th>Course Title</th>
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<tr>
<td>PLB 261</td>
<td>Advanced Plumbing Lab OR</td>
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</tr>
<tr>
<td>PLB 265</td>
<td>Valve &amp; Faucet Repairs AND</td>
<td>1</td>
</tr>
<tr>
<td>PLB 267</td>
<td>Water Heater Service &amp; Replacement AND</td>
<td>1</td>
</tr>
<tr>
<td>PLB 269</td>
<td>Sewer &amp; Drain Cleaning</td>
<td>1</td>
</tr>
<tr>
<td>PLB 262</td>
<td>Back Flow Prevention</td>
<td>3</td>
</tr>
<tr>
<td>PLB 270</td>
<td>License Preparation for Journeyman Exam</td>
<td>3</td>
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<tr>
<td>PLB 298</td>
<td>Plumbing Practicum/Repairs &amp; Maintenance OR</td>
<td>4</td>
</tr>
<tr>
<td>PLB 299</td>
<td>Plumbing Cooperative Education</td>
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</tr>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
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<tr>
<td>BAS 120</td>
<td>Personal Finance OR</td>
<td>3</td>
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<tr>
<td>EFM 100</td>
<td>Personal Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>WPP 200</td>
<td>Workplace Principles OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 250</td>
<td>Business Employability Seminar</td>
<td>1</td>
</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety OR</td>
<td>3</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
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**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:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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<td>Plumbing, Introduction to the Trade AND</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>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</td>
<td>3</td>
</tr>
<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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<tr>
<td>PLB 251</td>
<td>Backflow Prevention</td>
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<tr>
<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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</tr>
<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>
<td>Sewer &amp; Drain Cleaning</td>
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<td>PLB 262</td>
<td>Back Flow Prevention</td>
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<tr>
<td>PLB 270</td>
<td>License Preparation for Journeyman Exam OR</td>
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<tr>
<td>PLB 298</td>
<td>Plumbing Practicum/Repairs &amp; Maintenance OR</td>
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<td>Plumbing Cooperative Education</td>
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<td>BAS 120</td>
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<td>WPP 200</td>
<td>Workplace Principles OR</td>
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<td>BAS 250</td>
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<td>ISX 101</td>
<td>Introduction to Industrial Safety OR</td>
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<td>Industrial Safety</td>
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**Certificates**

**Certified Backflow Tester® - 4605033079**  
*(Offered at BSC, ELC, JFC, MYC)*

<table>
<thead>
<tr>
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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PLB 262</td>
<td>Backflow Prevention</td>
<td>3</td>
</tr>
</tbody>
</table>

*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test*
Science degree. Upon completion, graduates will receive an Associate in Applied

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

Professional Studio Artist

The Professional Studio Artist (PSA) program prepares individuals for careers as independent studio artists and business owners, designers, performers and studio technicians. The curriculum offers technical, design, product development and performance classes in a variety of disciplines coupled with business, marketing and management courses. Class work covering the history and traditions of each discipline, basic studio development and technology requirements will be a vital part of the student’s education. Students will complete 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 AASTrack 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 conservator, or pursue a four-year degree. The program of study will offer a diverse and comprehensive study in furniture design 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 essential to the program as well as extensive laboratory coursework in all aspects of bench jewelry repair, the metallurgical science of precious metals, traditional and non-traditional metal processes, processes of jewelry mass production, silversmithing, goldsmithing and work in new technologies such as computer-aided jewelry design.

The diploma in Jewelry/Metals Technician and the certificate in Jewelry/Metals Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as jewelry makers and technicians. The Jewelry Studio certificate will give the student an intensive foundation in metals technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of jewelry design and making procedures necessary for entry-level positions in the custom or commercial jewelry industry.

The 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 songwriting. 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.

### Associate in Applied Science

#### Professional Studio Artist - 5002017019

(Offered at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<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>COM 252</td>
<td>Introduction to Interpersonal Communications OR</td>
<td>3</td>
</tr>
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<td>COM 181</td>
<td>Basic Public Speaking</td>
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<tr>
<td>Social/Behavioral Sciences</td>
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**Subtotal**: 18-19

#### Wood/Furniture Design Track - 500201701

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<th>Description</th>
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<tr>
<td>ART 110</td>
<td>Drawing I</td>
<td>3</td>
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<tr>
<td>ART 112</td>
<td>2-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 113</td>
<td>3-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>PSW 111</td>
<td>Introduction to Furniture Making</td>
<td>3</td>
</tr>
<tr>
<td>PSW 115</td>
<td>Furniture Making II</td>
<td>3</td>
</tr>
<tr>
<td>PSW 116</td>
<td>Wood Finishing</td>
<td>2</td>
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<tr>
<td>PSW 117</td>
<td>Wood Turning for Furniture</td>
<td>3</td>
</tr>
<tr>
<td>PSW 210</td>
<td>Furniture Making III</td>
<td>3</td>
</tr>
<tr>
<td>PSW 211</td>
<td>Wood Bending and Veneering</td>
<td>3</td>
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<tr>
<td>PSW 212</td>
<td>Chair Design</td>
<td>3</td>
</tr>
<tr>
<td>PSW 215</td>
<td>Furniture Making IV</td>
<td>3</td>
</tr>
<tr>
<td>PSW 220</td>
<td>Furniture/Wood Product Development</td>
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<tr>
<td>PSA 240</td>
<td>Professional Artist Seminar</td>
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**Sub-Total**: 43

**Total Credits**: 61-62

#### Jewelry/Metals Track - 500201702

<table>
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<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ART 112</td>
<td>Drawing I</td>
<td>3</td>
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<tr>
<td>ART 113</td>
<td>2-Dimensional Design</td>
<td>3</td>
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<td>ART 130</td>
<td>3-Dimensional Design</td>
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<td>BAS 200</td>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 110</td>
<td>Jewelry/Metals I</td>
<td>3</td>
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<tr>
<td>PSJ 115</td>
<td>Jewelry/Metals II</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 116</td>
<td>Ancient Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 117</td>
<td>Metal Casting/Finishing Techniques</td>
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<tr>
<td>PSJ 210</td>
<td>Jewelry/Metals III</td>
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<tr>
<td>PSJ 211</td>
<td>Holloweware and Metal Forming</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 212</td>
<td>Metallurgy of Precious Metals</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 215</td>
<td>Jewelry/Metals IV</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 216</td>
<td>Stone Setting</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 220</td>
<td>Jewelry/Metals Product Development</td>
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<tr>
<td>PSA 240</td>
<td>Professional Artist Seminar</td>
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**Sub Total**: 45

**Total Credits**: 63-64

#### Bluegrass and Traditional Music Track - 500201703

(Offered HZC)

<table>
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<tr>
<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</td>
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<tr>
<td>PSM 105</td>
<td>Recording I</td>
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<tr>
<td>PSM 107</td>
<td>Songwriting I</td>
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**Total Credits**: 63-64
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<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>
<td>0-1</td>
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<tr>
<td>PSM 114</td>
<td>Bluegrass &amp; Traditional Band/Ensemble x4</td>
<td>8</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>
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<tr>
<td>PSM 125</td>
<td>Recording II OR</td>
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<tr>
<td>PSM 117</td>
<td>Songwriting II</td>
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<td>PSM 231</td>
<td>Bluegrass &amp; Traditional Music III</td>
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<td>PSM 235</td>
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<td>PSM 217</td>
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<td>PSM 245</td>
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<td>PSM 227</td>
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<td>PSA 240</td>
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**Subtotal 62-64**

**Total Credits 34-37**

**Technical/Support Courses**

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<th>Course Title</th>
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<tbody>
<tr>
<td>ART 110</td>
<td>Drawing I</td>
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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>
<td>3</td>
</tr>
<tr>
<td>BAS 200</td>
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</tr>
<tr>
<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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</tr>
<tr>
<td>PSC 115</td>
<td>Ceramics II</td>
<td>3</td>
</tr>
<tr>
<td>PSC 117</td>
<td>Glaze Calculations</td>
<td>3</td>
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<tr>
<td>PSC 210</td>
<td>Ceramics III</td>
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<tr>
<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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**Subtotal 45**

**Total Credits 60-63**

**Ceramics Track - 500201704**

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<tr>
<td>Digital Competency by exam</td>
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<td>ART 110</td>
<td>Drawing I</td>
<td>3</td>
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<td>ART 113</td>
<td>3-Dimensional Design</td>
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<td>BAS 200</td>
<td>Small Business Management</td>
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</tr>
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<td>PSJ 110</td>
<td>Jewelry/Metals I</td>
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<tr>
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<td>PSJ 117</td>
<td>Metal Casting /Finishing Techniques</td>
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</tr>
<tr>
<td>PSJ 210</td>
<td>Jewelry/Metals III</td>
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<td>PSJ 211</td>
<td>Hollowware and Metal Forming</td>
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<td>PSJ 212</td>
<td>Metallurgy of Precious Metals</td>
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<td>PSJ 215</td>
<td>Jewelry/Metals IV</td>
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<td>PSJ 216</td>
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**Subtotal 9**

**Total Credits 30-33**

**Technical Courses**

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</tr>
<tr>
<td>Digital Literacy OR</td>
<td>0-3</td>
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<tr>
<td>Digital Competency by exam</td>
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<td>PSM 113</td>
<td>Guitar I OR</td>
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<td>Competency by audition</td>
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<td>PSM 105</td>
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<td>PSM 107</td>
<td>Songwriting I</td>
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<tr>
<td>PSM 112</td>
<td>Individual String Instrument Instruction x4</td>
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<td>PSM 114</td>
<td>Bluegrass &amp; Traditional Band/Ensemble x4</td>
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<tr>
<td>PSM 241</td>
<td>Bluegrass &amp; Traditional Music IV (elective)</td>
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**Subtotal 17-27**

**Total Credits 35-45**

**Ceramics Studio Technician - 5002014049**

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<td>Writing I</td>
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<tr>
<td>MAT 110</td>
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**Subtotal 6**

**Total Credits 36-39**

**Technical/Support Courses**

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<td>3-Dimensional Design</td>
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<td>BAS 200</td>
<td>Small Business Management</td>
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<td>PSC 112</td>
<td>Ceramics I</td>
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<tr>
<td>PSC 115</td>
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<td>PSC 200</td>
<td>Ceramics III</td>
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<td>PSC 215</td>
<td>Ceramics IV</td>
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<td>PSC 220</td>
<td>Ceramics Product Development</td>
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**Subtotal 28-31**

**Total Credits 34-37**

**Jewelry/Metals Technician - 5002014029**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Math OR</td>
<td>3</td>
</tr>
<tr>
<td>Any higher level math</td>
<td>(3)</td>
<td></td>
</tr>
</tbody>
</table>

**Subtotal 6**

**Total Credits 30-33**

**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 |

**Support Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>HUM 202</td>
<td>Survey of Appalachian Studies I</td>
<td>3</td>
</tr>
<tr>
<td>MUS 174</td>
<td>Theory for Non-Music Majors</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal 9**

**Total Credits 35-45**

**Diplomas**

**Wood Studio Technician - 5002014019**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
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</table>

**Subtotal 6**

**Total Credits 63-64**

**Academic Curricula**

---
### Certificates

**Furniture Making Fundamentals - 5002013029**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>PSM 111 Intro to Furniture Making</td>
<td>3</td>
</tr>
<tr>
<td>PSM 115 Furniture Making II</td>
<td>3</td>
</tr>
<tr>
<td>PSM 116 Wood Finishing</td>
<td>2</td>
</tr>
<tr>
<td>PSM 211 Wood Bending &amp; Veneering</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
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**Wood Furniture Studio - 5002013059**

<table>
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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSM 111 Intro to Furniture Making</td>
<td>3</td>
</tr>
<tr>
<td>PSM 115 Furniture Making II</td>
<td>3</td>
</tr>
<tr>
<td>PSM 116 Wood Finishing</td>
<td>2</td>
</tr>
<tr>
<td>PSM 117 Wood Turning for Furniture</td>
<td>3</td>
</tr>
<tr>
<td>PSM 211 Wood Bending &amp; Veneering</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</table>

**Jewelry/Metals Fundamentals - 5002013019**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 112 2-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 110 Jewelry/Metals I</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 115 Jewelry/Metals II</td>
<td>3</td>
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<tr>
<td>PSJ 210 Jewelry/Metals III</td>
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<td><strong>Total Credits</strong></td>
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**Jewelry Studio - 5002013069**

<table>
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<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSJ 110 Jewelry/Metals I</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 115 Jewelry/Metals II</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 116 Ancient Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 117 Metal Casting/Finishing Techniques</td>
<td>2</td>
</tr>
<tr>
<td>PSJ 211 Holloware and Metal Forming</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 212 Metallurgy of Precious Metals</td>
<td>2</td>
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<td><strong>Total Credits</strong></td>
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**Bluegrass & Traditional Music Fundamentals - 5002013039**

(Offered at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BAS 200 Small Business Management</td>
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**Technical Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSM 112 Individual String Instrument Instruction x2</td>
<td>2</td>
</tr>
<tr>
<td>PSM 105 Recording I</td>
<td>1</td>
</tr>
<tr>
<td>PSM 107 Songwriting I</td>
<td>1</td>
</tr>
<tr>
<td>PSM 114 Bluegrass &amp; Traditional Band/Ensemble x2</td>
<td>4</td>
</tr>
<tr>
<td>PSM 101 Bluegrass &amp; Traditional Music History I</td>
<td>3</td>
</tr>
<tr>
<td>PSM 113 Guitar I OR</td>
<td>0-1</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>14-15</strong></td>
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**Audio Recording – 5002013089**

(Offered at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 200 Small Business Management</td>
<td>3</td>
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**Guided Electives (Select 2 of the following):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSM 101 Bluegrass &amp; Traditional Music History I</td>
<td>3</td>
</tr>
<tr>
<td>MILS 100 Intro to Music</td>
<td>3</td>
</tr>
<tr>
<td>MILS 104 Introduction to Jazz History</td>
<td>3</td>
</tr>
<tr>
<td>MILS 222 History and Sociology of Rock Music</td>
<td>3</td>
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</tbody>
</table>

**Technical Electives (Select 1 of the following):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSM 107 Songwriting I</td>
<td>1</td>
</tr>
<tr>
<td>PSM 112 Individual Stringed Instruction</td>
<td>1</td>
</tr>
<tr>
<td>PSM 113 Guitar I</td>
<td>1</td>
</tr>
</tbody>
</table>

### Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSM 105 Recording I</td>
<td>1</td>
</tr>
<tr>
<td>PSM 125 Recording II</td>
<td>1</td>
</tr>
<tr>
<td>PSM 235 Recording III</td>
<td>2</td>
</tr>
<tr>
<td>PSM 245 Recording IV</td>
<td>2</td>
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<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16</strong></td>
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</tbody>
</table>

**Ceramics Fundamentals - 5002013049**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 112 2-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>PSC 112 Ceramics I</td>
<td>3</td>
</tr>
<tr>
<td>PSC 115 Ceramics II</td>
<td>3</td>
</tr>
<tr>
<td>PSC 117 Glaze Calculations</td>
<td>3</td>
</tr>
<tr>
<td>PSC 211 Kiln Operation and Design</td>
<td>3</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</table>

**Ceramics Studio - 5002013079**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSC 112 Ceramics I</td>
<td>3</td>
</tr>
<tr>
<td>PSC 115 Ceramics II</td>
<td>3</td>
</tr>
<tr>
<td>PSC 117 Glaze Calculations</td>
<td>3</td>
</tr>
<tr>
<td>PSC 211 Kiln Operation and Design</td>
<td>3</td>
</tr>
<tr>
<td>PSC 212 Ceramics Production Techniques</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>15</strong></td>
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</table>

### 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 – 5100003040**

(Offered at HZC, OWC)

<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>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Engineering Related – PLTW – 1515993019**

(Offered at OW, MDC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLW 100 Introduction to Engineering Design</td>
<td>4</td>
</tr>
<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>
</tr>
<tr>
<td>PLW 295 Engineering Design and Development</td>
<td>(4)</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

### Radiography

This program prepares the individual to become a radiographer. The radiographer is prepared to administer ionizing radiation for medical diagnostic imaging purposes. Emphasis is on radiation protection and quality patient care. The curriculum is comprised of specialized courses in radiography with concentrated study in the basic sciences, mathematics and general education. Students enrolled in the Radiography program must achieve a minimum grade of “C” in each Radiography course, required natural science course, and required quantitative reasoning course. Upon
completion of the program, the graduate is eligible to apply to write the examination for registration as a radiographer by the American Registry of Radiologic Technologists. Radiographers may find positions in hospitals, health clinics, and physicians' offices. Research laboratories and some industrial firms may also employ radiographers. The curriculum requires attendance in the summer session, fall and spring semesters.

Note: CPR certificate must be obtained prior to enrolling in IMG 100 or IMG 104, IMG 106 and IMG 108 and certification must be kept current throughout the program. Note: Documentation of digital literacy as defined by KCTCS is required prior to admission to IMG courses.

Advanced Imaging in Radiography focuses on the areas of Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) in the Radiological Sciences. Didactic and clinical instruction prepares the technologist to work in the areas of CT and MRI in the healthcare setting and to sit for the Advanced Board Exams given by the American Registry of Radiologic Technologists. These courses are offered for technologists who are currently registered by the American Registry of Radiologic Technologists in Radiography or the Nuclear Medicine Technology Certification Board in Nuclear Medicine, or students who have completed one year and are currently enrolled in an accredited radiography or nuclear medicine program, or by consent of the instructor. The core curriculum courses are intended to provide the student with an overall knowledge of advanced patient care and sectional anatomy. The CT and MRI tracks focus on the physics, instrumentation and imaging techniques of these modalities. The student may choose CT or MRI or both. Although these courses are organized in a hierarchical pattern, depending on the entry-level knowledge and the needs of the student, they may be taken out of sequence with consent of the instructor.

Note: Hours Exception (71-75 for the A.A.S. and 56-62 for the Diploma) approved by the KCTCS Board of Regents in June 2010.

**Associate in Applied Science**

Radiography - 5109117019

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

**General Education:**
- Social/Behavioral Sciences .................................................. 3
- Heritage/Humanities .......................................................... 3
- Oral Communications .......................................................... 3
- ENG 101 Writing I .............................................................. 3
- MAT 150 College Algebra OR ............................................. 3
- BIO 137 Human Anatomy & Physiology I ............................. 4
- BIO 139 Human Anatomy & Physiology II ............................ 4
- PHY 172 Physics for Health Sciences OR ............................... 2
- PHY 152 Introduction to Physics OR ..................................... 3
- PHY 171 Applied Physics ..................................................... 4

**Subtotal** 25-27

**Support Course:**
- CLA 131 Medical Terminology from Greek & Latin OR ............ 3
- AHS 115 Medical Terminology ............................................. 3

**Subtotal** 3

**Technical Courses:**
- IMG 220 Radiography V .................................................. 4
- IMG 221 Clinical V .......................................................... 6

**Total Credits Pathway 1** 73-75

*Pathway 2 – 510911702*

*(Offered at ELC, HPC, JFC, MDC, OWC, SEC, SKY, SMC, WKC)*

**Technical Courses:**
- IMG 104 Introduction to Radiography ................................... 2
- IMG 106 Patient Care in Radiography* .................................. 2
- IMG 108 Radiographic Procedures I .................................. 4
- IMG 109 Clinical Practice I .............................................. 1
- IMG 114 Image Production and Acquisition ........................ 2
- IMG 116 Advanced Patient Care in Radiography .................. 2
- IMG 118 Radiographic Procedures II .................................. 4
- IMG 119 Clinical Practice II ............................................. 3
- IMG 120 Clinical Practice III ............................................ 3
- IMG 213 Imaging Equipment ............................................. 2
- IMG 215 Basic Computed Tomography ................................ 1
- IMG 219 Clinical Practice IV .......................................... 6
- IMG 224 Radiation Protection & Biology ............................ 2
- IMG 226 Radiography Pathology ...................................... 1
- IMG 228 Radiography Seminar ......................................... 2
- IMG 229 Clinical Practice V ............................................. 6

**Subtotal** 43

**Total Credits Pathway 2** 71-73

*NAA 100 may be substituted for IMG 106.*

**Certificate**

**Advanced Imaging in Radiography- 5109113029**

**Core**
- IMG 230 Sectional Anatomy for Advanced Imaging ............... 3
- IMG 240 Pathology for Advanced Medical Imaging Modalities 3

**Subtotal** 6

**Computed Tomography Track – 510911301**

*(Offered at HZC, SEC)*
- IMG 250 Computed Tomography Physics and Instrumentation .... 3
- IMG 260 Computed Tomography Imaging Procedures ............. 3

**Subtotal** 6

**Total Credits** 12

**Computed Tomography with Clinical Track – 510911302**

*(Offered at SMC, WKC)*
- IMG 250 Computed Tomography Physics and Instrumentation .... 3
- IMG 260 Computed Tomography Imaging Procedures ............. 3
- IMG 285 Computed Tomography Clinical Practice I ............... 4

**Subtotal** 10

**Total Credits** 16

**Magnetic Resonance Imaging Track – 510911303**

*(Offered at HZC, SEC)*
- IMG 255 Magnetic Resonance Physics and Instrumentation ....... 3
- IMG 265 Magnetic Resonance Imaging Technology ................. 3

**Subtotal** 6

**Total Credits** 12
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 (C.R.T.) 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.

*RCP courses currently only offered and required at BCTC to complete certificate.

**In addition Twenty (20) hours of documented clinical Electrocardiographic experience

Note: Hours Exception (67-70 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.

**General Education Course

> **May not be accepted at Elizabethtown CTC or Madisonville CC for Respiratory Care degree program credit.

# RCP courses currently only offered and required at BCTC for degree completion at that college.

### Certificates

**Polysomnographic Technologist - 5109083069**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I*</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II*</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I *</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics*</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
</tr>
<tr>
<td>PSG 100</td>
<td>Introduction to Polysomnography</td>
</tr>
<tr>
<td>PSG 110</td>
<td>Polysomnography Level I</td>
</tr>
<tr>
<td>PSG 111</td>
<td>Polysomnography Lab I</td>
</tr>
<tr>
<td>PSG 115</td>
<td>Polysomnography Practice I</td>
</tr>
<tr>
<td>PSG 133</td>
<td>Pathology of Sleep and Related Disorders</td>
</tr>
<tr>
<td>PSG 135</td>
<td>Polysomnography Practice II</td>
</tr>
</tbody>
</table>

**Total Credits** 36

**Electrocardiographic and Cardiac Monitoring Technician - 5109083049**

( Offered at BLC, BSC, ESC, JFC, SKY)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I*</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II*</td>
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<tr>
<td>ENG 101</td>
<td>Writing I *</td>
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<td>MAT 146</td>
<td>Contemporary College Mathematics*</td>
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<td>Polysomnography Level I</td>
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<td>PSG 111</td>
<td>Polysomnography Lab I</td>
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<tr>
<td>PSG 115</td>
<td>Polysomnography Practice I</td>
</tr>
<tr>
<td>PSG 133</td>
<td>Pathology of Sleep and Related Disorders</td>
</tr>
</tbody>
</table>

**Total Credits** 24-28

*General Education Course
Security Management

The Security Management Coordinator program provides a comprehensive overview of physical security policies, procedures and techniques. Topics covered are perimeter protection, intrusion detection, access control, CCTV, locks and locking devices, lighting, security design and surveys, contingency planning, and acts of violence. Instruction in all types of security hardware: electronic and mechanical door locks, access control systems and their devices, as well as intrusion detection systems and cameras, are taught. The program will provide the student with the knowledge of how to work with physical security policies, procedures and techniques.

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 “Paths 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 sales and locks. This program will provide the technician with the training to service, maintain and troubleshoot sales and locks. Topics covered are electronic access control systems, safe lock servicing – electronic and mechanical, combination lock manipulation, basic safe penetration, locks and locking devices, safe and safe hardware, security hardware, electronic and mechanical door locks.

For all programs: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI.

Certificates

Security Management Coordinator - 4301123010
(Offered at BLC)

<table>
<thead>
<tr>
<th>LSI</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
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<tr>
<td>120</td>
<td>Comprehensive Security Specialist</td>
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</tr>
<tr>
<td>140</td>
<td>Managing Terrorism &amp; Other Crises</td>
<td>1</td>
</tr>
<tr>
<td>150</td>
<td>Professional Locksmithing</td>
<td>4</td>
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<tr>
<td></td>
<td>Electives</td>
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<tr>
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</table>

Electives: A minimum of 3 credit hours must be taken from this list of electives:

<table>
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<th>LSI</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>100</td>
<td>Fundamental Principles of Physical Security</td>
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</tr>
<tr>
<td>105</td>
<td>Force Protection</td>
<td>3</td>
</tr>
<tr>
<td>110</td>
<td>Security Surveys</td>
<td>2</td>
</tr>
<tr>
<td>115</td>
<td>Command Security Officer Training</td>
<td>4</td>
</tr>
<tr>
<td>130</td>
<td>GSA: Locks, Vaults &amp; Containers</td>
<td>4</td>
</tr>
<tr>
<td>131</td>
<td>GSA: Locks, Vaults &amp; Containers Certified Inspector Training</td>
<td>1</td>
</tr>
<tr>
<td>151</td>
<td>Basic Safe Penetration</td>
<td>1</td>
</tr>
<tr>
<td>152</td>
<td>Combination Lock Manipulation</td>
<td>1</td>
</tr>
<tr>
<td>153</td>
<td>Safe Lock Servicing - Mechanical and Electronic</td>
<td>2</td>
</tr>
<tr>
<td>160</td>
<td>Fundamentals of Electricity</td>
<td>2</td>
</tr>
<tr>
<td>170</td>
<td>Electronic Access Control</td>
<td>2</td>
</tr>
<tr>
<td>180</td>
<td>Security and Crime Prevention Countermeasures</td>
<td>1</td>
</tr>
<tr>
<td>185</td>
<td>Security Hardware &amp; Bypass Techniques</td>
<td>1</td>
</tr>
<tr>
<td>190</td>
<td>Tactical Lock (restricted enrollment)</td>
<td>8</td>
</tr>
</tbody>
</table>

Safe & Lock Technician - 4301123040

<table>
<thead>
<tr>
<th>LSI</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>Professional Industrial Locksmithing</td>
<td>4</td>
</tr>
<tr>
<td>153</td>
<td>Safe Lock Servicing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>16</td>
</tr>
</tbody>
</table>

Electives: A minimum of 10 credit hours must be taken from this list of electives.

<table>
<thead>
<tr>
<th>LSI</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>Security Surveys</td>
<td>2</td>
</tr>
<tr>
<td>130</td>
<td>GSA: Lock, Vault &amp; Container</td>
<td>4</td>
</tr>
<tr>
<td>151</td>
<td>Basic Safe Penetration</td>
<td>1</td>
</tr>
<tr>
<td>152</td>
<td>Combination Lock Manipulation</td>
<td>1</td>
</tr>
<tr>
<td>160</td>
<td>Fundamentals of Electricity</td>
<td>2</td>
</tr>
<tr>
<td>170</td>
<td>Electronic Access Control</td>
<td>2</td>
</tr>
<tr>
<td>182</td>
<td>Managing Security Operations</td>
<td>2</td>
</tr>
</tbody>
</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>BAS</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>Social Media Marketing: Fundamental Concepts, Skills and Strategies</td>
<td>3</td>
</tr>
<tr>
<td>126</td>
<td>Social Media Marketing: Project Management and Implementation Strategies</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Subtotal</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</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</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></td>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 110</td>
<td>Digital Literacy</td>
<td>0-3</td>
</tr>
<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>1</td>
</tr>
<tr>
<td>SUR 200</td>
<td>Surgical Technology Advanced Theory</td>
<td>2</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>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>45-48</strong></td>
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</tbody>
</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</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 280</td>
<td>Surgical Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>SUR 282</td>
<td>Perioperative Bioscience</td>
<td>3</td>
</tr>
<tr>
<td>SUR 284</td>
<td>Principles of Surgical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>SUR 295</td>
<td>Surgical First Assistant Clinical</td>
<td>1</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>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</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, outpatient clinics, and the operating room.

The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works under the supervision of a surgeon to ensure that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety.

A surgical technologist possesses expertise in the theory and application of sterile and aseptic techniques and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician’s performance of invasive therapeutic and diagnostic procedures.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical Technology Program are required to achieve a minimum grade of "C" in each course required for the credential. Students who withdraw from or earn less than a "C" in any course with a Surgical Technology prefix will be dropped from the Surgical Technology program and must reapply for admission. CPR (for Healthcare 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 33773; (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, Owens-
Digital literacy must be demonstrated either by competency exam or by completing a practicum course, and must remain current throughout the Surgical Technology Program. CPR certificate must be obtained prior to enrolling in the first Surgical Technology course.

### Associate in Applied Science

**Surgical Technology - 5109097019**

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

#### General Education:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology 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>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>4</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 OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>3</td>
</tr>
<tr>
<td>SUR 100</td>
<td>Surgical Technology Fundamentals/Theory OR</td>
<td>12</td>
</tr>
<tr>
<td>SUR 109</td>
<td>Introduction to Surgical Technology AND</td>
<td>3</td>
</tr>
<tr>
<td>SUR 110</td>
<td>Surgical Technology Fundamentals</td>
<td>9</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 227</td>
<td>Principles of Microbiology OR</td>
<td>3</td>
</tr>
<tr>
<td>BIO 118</td>
<td>Microbes and Society</td>
<td>3</td>
</tr>
<tr>
<td>SUR 101</td>
<td>Surgical Technology Fundamentals 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>
</tbody>
</table>

#### Technical Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>3</td>
</tr>
<tr>
<td>SUR 109</td>
<td>Introduction to Surgical Technology AND</td>
<td>3</td>
</tr>
<tr>
<td>SUR 110</td>
<td>Surgical Technology Fundamentals Fundamentals OR</td>
<td>9</td>
</tr>
<tr>
<td>SUR 100</td>
<td>Surgical Technology Fundamentals/Clinical Skills</td>
<td>12</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 227</td>
<td>Principles of Microbiology with Laboratory OR</td>
<td>5</td>
</tr>
<tr>
<td>BIO 118</td>
<td>Microbes and Society</td>
<td>3</td>
</tr>
<tr>
<td>SUR 101</td>
<td>Surgical Technology Fundamentals 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 250</td>
<td>Business Employability Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

A total of 10 credit hours must be completed from the following practicum courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 125</td>
<td>Surgical Technology Skills Practicum I</td>
<td>2</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>

#### Elective(s):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 103</td>
<td>Surgical Technology Didactic Practicum</td>
<td>1</td>
</tr>
<tr>
<td>SUR 270</td>
<td>Pathophysiology for Surgical Technology OR</td>
<td>2</td>
</tr>
<tr>
<td>MAI 200</td>
<td>Pathophysiology for Medical Assistants</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
<td>3</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>3</td>
</tr>
</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.

### Diplomas

**Surgical Technology - 5109094019**

*(Offered at ASC, BSC, JFC, MDC, OWC, SEC)*

#### General Education:

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG</td>
<td>101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td></td>
<td>Basic Anatomy &amp; Physiology with Lab OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td></td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td></td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Technical Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>3</td>
</tr>
<tr>
<td>SUR 109</td>
<td>Introduction to Surgical Technology AND</td>
<td>3</td>
</tr>
<tr>
<td>SUR 110</td>
<td>Surgical Technology Fundamentals OR</td>
<td>9</td>
</tr>
<tr>
<td>SUR 100</td>
<td>Surgical Technology Fundamentals/Clinical Skills</td>
<td>12</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology OR</td>
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<td>BIO 227</td>
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<tr>
<td>BIO 118</td>
<td>Microbes and Society</td>
<td>3</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 250</td>
<td>Business Employability Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

A total of 10 credit hours must be completed from the following practicum courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 125</td>
<td>Surgical Technology Skills Practicum I</td>
<td>2-3</td>
</tr>
<tr>
<td>SUR 201</td>
<td>Surgical Technology Skills Practicum II</td>
<td>6-7</td>
</tr>
<tr>
<td>SUR 275</td>
<td>Surgical Technology Advanced Clinical Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Elective(s):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
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<td>SUR 270</td>
<td>Pathophysiology for Surgical Technology OR</td>
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</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>
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</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.
- Digital literacy must be demonstrated either by competency exam or by completing a digital literacy course.

### Certificates

**Surgical Technology Bridge Program - 5109093019**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STN 100</td>
<td>Surgical Technology Fundamentals for Nurses</td>
<td>7</td>
</tr>
<tr>
<td>STN 101</td>
<td>Surgical Technology Lab for Nurses</td>
<td>1</td>
</tr>
<tr>
<td>STN 102</td>
<td>Surgical Technology Clinical for Nurses</td>
<td>6</td>
</tr>
<tr>
<td>STN 110</td>
<td>Surgical Technology Procedures for Nursing</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Credit Hours**

18
Surveying and Mapping Technology

The curriculum is arranged for students to gain employment in surveying and mapping. It allows students to gain the educational requirements to sit for the licensing exams in the state of Kentucky. Classes emphasize solving problems encountered in the field of Surveying & Mapping Technology. Students perform routine topographical, boundary and other mapping/surveying projects, as well as Global Positioning (GPS) surveys. Students establish essential data, keep notes, develop preliminary sketches, and prepare working drawings, profile and section maps, volume calculations, and topographic maps. Students use computer mapping and coordinate geometry software to accomplish these tasks.

Associate in Applied Science

Surveying and Mapping Technology - 1511027029
(Offered at BSC)

ENG 101 Writing I ...............................................................3
MAT 116 Technical Mathematics or ...........................................3
SMT 110 Principles of Surveying .............................................3
SMT 130 Land Surveying Graphics ..........................................3
SMT 160 Construction Surveying ............................................3
SMT 210 Advanced Surveying Measurement ............................3
SMT 220 Surveying Lab ..........................................................3
SMT 230 Land Boundary Location ..........................................3
SMT 250 Mine Surveying ..........................................................3
SMT 270 Professional Ethics and Conduct for Land Surveyors .......3
SMT 290 Boundary Law .............................................................3
Technical Electives Approved by Program Coordinator ........3
Subtotal 45

AAS Total 60

Diploma

Surveying Technician III - 1511024019
(Offered at BSC)

Required General Education
ENG 101 Writing I ...............................................................3
MAT 116 Technical Mathematics .............................................3
Subtotal 6

Required Technical Courses
Computer/Digital Literacy ...................................................3
COM 181 Basic Public Speaking ...............................................3
SMT 110 Principles of Surveying .............................................3
SMT 130 Land Surveying Graphics ..........................................3
SMT 160 Construction Surveying ............................................3
SMT 210 Advanced Surveying Measurement ............................3
SMT 220 Surveying Lab ..........................................................3
SMT 230 Land Boundary Location ..........................................3
Technical Electives Approved by Program Coordinator ........3
Subtotal 33

Diploma Total 39

Certificate

Surveying Technician II - 1511023029
(Offered at BSC, HZC, SEC)
SMT 110 Principles of Surveying .............................................3
SMT 130 Land Surveying Graphics ..........................................3
Technical Electives Approved by Program Coordinator ........3
Certificate Total 12

Surveying Technician I - 1511023019
(Offered at BSC, HZC, SEC)
SMT 110 Principles of Surveying .............................................3
SMT 130 Land Surveying Graphics ..........................................3
Certificate Total 6

Technical Theatre

General Education Courses
THA 101 Introduction to Theatre: Principles and Practice .............3
COM 181 Basic Public Speaking (OR) ........................................3
COM 252 Intro to Interpersonal Communication (OR) .................3
ENG 101 Writing I ...............................................................3
Technical Core
THA 150 Fundamentals of Production .....................................3
THA 250 Stage Electrics ..........................................................3
THA 260 Stagecraft .................................................................3
THA 141 Costuming and Make-up for the Stage .........................3
Technical Electives (Select one of the following)
ART 113 3-Dimensional Design ............................................3
ELT 110 Circuits I .................................................................5
DFT 102 Drafting Fundamentals ..............................................4
WLD 152 Basic-Welding B .....................................................5
CAR 126/127 Introduction to Construction/Intro to Construction Lab ..3/1
THA 192 Production Practicum ..............................................1
Other courses as approved by the program coordinator
Total 19-24

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)
HST 102 Health Care Delivery and Management ......................3
HST 103 Health Care Communications ....................................2
## Truck Driver Training

Prepares students to drive tractor trailer trucks, apply their knowledge of commercial driving regulations, prepare receipts for loads, maintain truck logs according to state and federal regulations, load and unload trucks, inspect trucks and their equipment. The Transportation Specialist certificate will also include the operation of basic heavy equipment in addition to the routine and minor maintenance and repairs on diesel engines.

### Certificates

- **Tractor Trailer, CDLA I - 4902053010**
  - (Offered at BSC, GTW, HPC, HZC, SMC, WKC)
  - **TRU 100** Truck Driving .......................... 6
  - **Total Credits** 6

- **Tractor Trailer, CDLA II - 4902053029**
  - (Offered at JFC)
  - **TNT 110** Basic Operations .......................... 3
  - **TNT 120** Safe Operating Practices .................. 3
  - **TNT 210** Advanced Operating Practices ........... 1
  - **TNT 220** Vehicle Systems and Reporting Malfunction .......................... 3
  - **TNT 250** Internship .............................. 4
  - **Total Credits** 14

- **Tractor Trailer, CDLA III - 4902053039**
  - (Offered at BSC)
  - **TRK 110** Driver Preparation .......................... 3
  - **TRK 120** Trucking Safety .......................... 3
  - **TRK 130** Instrumentation .......................... 3
  - **TRK 140** Systems Check .......................... 1
  - **TRK 150** CDL Training .......................... 3
  - **TRK 160** Combined Driving .......................... 2
  - **TRK 216** Advanced Driver Preparation ........... 1
  - **TRK 220** Advanced Trucking Safety .................. 3
  - **TRK 230** Advanced Controls .......................... 1
  - **TRK 240** System Inspections .......................... 1
  - **TRK 250** Advanced CDL Preparation ........... 1
  - **TRK 260** Advanced Combined Driving ........... 2
  - **Total Credits** 24

### Associate in Applied Science

**Veterinary Technology - 5108087019**

#### General Education

- **ENG 101** Writing I ............................................... 3
- **PHI 110** Medical Ethics ........................................ 3
- **MAT 110** Technical Mathematics OR .................. 3
- **MAT 150** College Algebra ........................................... (3)
- **BIO 112** Introduction to Biology .......................... 3
- **BIO 113** Introduction to Biology Lab .................. 1
- **SOC 110** Social/Behavioral Sciences .................. 3
- **COM 252** Introduction to Interpersonal Communication .......................... 3
- **Total Credits** 19

#### Required Technical Courses

- **AGR 240** Introduction to Animal Science .................. 3
- **AGR 280** Livestock Management .......................... 3
- **VET 110** Introduction to Veterinary Technology ........... 5
- **VET 112** Veterinary Microbiology .................. 4
- **VET 114** Animal Anatomy & Physiology ........... 5
- **VET 120** Clinical Practicum I .................. 2
- **VET 130** Veterinary Lab Procedures I ........... 5
- **VET 210** Pharmacology .......................... 3
- **VET 220** Parasitology and Clinical Lab Techniques ........... 5
- **VET 230** Veterinary Lab Procedures II ........... 5
- **VET 240** Veterinary Lab Procedures III ........... 5
- **VET 250** Clinical Practicum II ........... 5
- **Total Credits** 50-53
- **AAS Total** 69-72

### Visual Communication

**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 Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I.</td>
<td>3</td>
</tr>
<tr>
<td>ART 106</td>
<td>Renaissance Through Modern Art History</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics OR</td>
<td>(3)</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>(3)</td>
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<td></td>
<td>Social/Behavioral Sciences</td>
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<tr>
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<td>Natural Sciences</td>
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Core Communication Art Courses

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<tbody>
<tr>
<td>VCC 150</td>
<td>Mac Basics OR any Computer/Digital Literacy equiv*0-3</td>
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<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
<td>3</td>
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<tr>
<td>ART 110</td>
<td>Drawing I</td>
<td>3</td>
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<tr>
<td>VCA 132</td>
<td>Illustration for Advertising</td>
<td>3</td>
</tr>
<tr>
<td>VCA 170</td>
<td>Advertising Design I</td>
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<tr>
<td>VCA 171</td>
<td>Advertising Design II</td>
<td>3</td>
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<tr>
<td>VCA 160</td>
<td>Commercial Photography I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 161</td>
<td>Commercial Photography II</td>
<td>3</td>
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<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
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<td><strong>Total Core Communication Arts Courses &amp; Gen Ed</strong></td>
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Advertising Design Track - 500406701
(Offered at JFC)

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<th>Course Title</th>
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<tbody>
<tr>
<td>VCA 106</td>
<td>Creative Typographic Design</td>
<td>3</td>
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<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
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<tr>
<td>VCA 270</td>
<td>Advertising Design III</td>
<td>4</td>
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<tr>
<td>VCA 271</td>
<td>Advertising Design IV</td>
<td>4</td>
</tr>
<tr>
<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298</td>
<td>Practicum</td>
<td>4</td>
</tr>
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<td><strong>Subtotal</strong></td>
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Total Credit Hours for Advertising Design Track: 63-66

Commercial Photography Track - 500406702
(Offered at JFC)

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>VCC 266</td>
<td>Advanced Photoshop</td>
<td>3</td>
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<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>VCA 260</td>
<td>Commercial Photography III</td>
<td>4</td>
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<tr>
<td>VCA 261</td>
<td>Commercial Photography IV</td>
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</tr>
<tr>
<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298</td>
<td>Practicum</td>
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<td><strong>Subtotal</strong></td>
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</table>

Total Credit Hours for Commercial Photography Track: 63-66

Digital Filmmaking Track - 500406703
(Offered at JFC)

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENG 207</td>
<td>Beginning Workshop in Imaginative Writing: Scriptwriting</td>
<td>3</td>
</tr>
<tr>
<td>MIUS 120</td>
<td>Music Technology I</td>
<td>3</td>
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<tr>
<td>VCA 151</td>
<td>Digital Filmmaking I</td>
<td>3</td>
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<tr>
<td>VCA 152</td>
<td>Digital Filmmaking II</td>
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<td>VCA 251</td>
<td>Digital Filmmaking III</td>
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<tr>
<td>VCA 252</td>
<td>Digital Filmmaking IV</td>
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<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
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<td>VCA 298</td>
<td>Practicum</td>
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Total Credit Hours for Digital Filmmaking Track: 65-68

Webpage Design Track - 500406704
(Offered at JFC)

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tr>
<td>VCC 205</td>
<td>Introduction to HTML OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development</td>
<td>(3)</td>
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<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
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<tr>
<td>IMD 180</td>
<td>Intermediate Web Design</td>
<td>3</td>
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<tr>
<td>VCM 115</td>
<td>2D Animation</td>
<td>3</td>
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<tr>
<td>VCM 230</td>
<td>Advanced Webpage Design</td>
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<tr>
<td>CIT 140</td>
<td>JavaScript I</td>
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<td>VCA 290</td>
<td>Folio Seminar</td>
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<tr>
<td>VCA 298</td>
<td>Practicum</td>
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<td><strong>Subtotal</strong></td>
<td><strong>25</strong></td>
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</table>

Total Credit Hours for Webpage Design Track: 64-67

*Either successfully passing computer competency exam or taking an approved computer/digital literacy course.

Certificates

Multimedia Certificate in Communication Arts - 5004063039
(Offered at JFC)

Technical or Support Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 150</td>
<td>Mac Basics OR Computer/Digital Literacy Equivalent*0-3</td>
<td></td>
</tr>
<tr>
<td>VCA 170</td>
<td>Advertising Design I</td>
<td>3</td>
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<tr>
<td>VCA 160</td>
<td>Commercial Photography I</td>
<td>3</td>
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<tr>
<td>VCA 171</td>
<td>Advertising Design II</td>
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<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
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<td><strong>Total Credits for MM Certificate in Communication Arts</strong></td>
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</tr>
</tbody>
</table>

Visual Communication: Design & Technology

Design & Technology emphasizes creative problem solving and insight into the mix of art, design and technical competence. This program includes a Graphic Design track, a Mixed Media Design track, and a Production Design track, with a core of courses common to all. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to drawing, design concepts, and computer graphics. In addition to core courses, students will take specialty courses for their selected option. Students may also choose to receive a certificate in digital photography.

The Graphic Design option emphasizes several aspects of graphic design and focuses on the development of creativity and software skills necessary to be competitive in the field.

The Mixed Media Design option provides students with a mix of any courses within the visual communication program or approved electives that serve the interests and skills of the student.
The Production Design option provides students training in the operation of various print production and graphic production equipment. Students will learn skills to design and produce a wide variety of printed materials, promotional items. and signage.

Prospective employment opportunities are in advertising agencies, graphic design studios, news media, printing and signage companies, department stores, and other creative services departments and businesses, including web design and video production studios.

All technical courses must be completed with “C” (2.0) or greater to advance in all Visual Communication programs.

### Associate in Applied Science

**Design & Technology – 5004097019**  
*(Offered at BSC)*

#### General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>VCC 100 Introduction to Visual Communication</td>
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<td>VCC 106 Typography</td>
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<tr>
<td>VCC 105 Drawing Concepts OR</td>
<td>3</td>
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<tr>
<td>VCC 108 Color Theory</td>
<td>3</td>
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<tr>
<td>VCC 110 Design Concepts</td>
<td>3</td>
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<tr>
<td>VCC 125 Computer Graphics I</td>
<td>3</td>
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<tr>
<td>VCC 280 Professional Portfolio Development</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>VCC 297 Internship OR</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>VCC 298 Practicum OR</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COE 199 Cooperative Education</td>
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<td><strong>Total General Education Requirements</strong></td>
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#### Required Technical Core:

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Digital Literacy</td>
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<tr>
<td>VCC 106 Typography</td>
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<td>VCC 105 Drawing Concepts OR</td>
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<td>VCC 108 Color Theory</td>
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<td>VCC 110 Design Concepts</td>
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<td>VCC 125 Computer Graphics I</td>
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<tr>
<td>VCC 280 Professional Portfolio Development</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>VCC 297 Internship OR</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>VCC 298 Practicum OR</td>
<td>3</td>
<td></td>
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#### Graphic Design Track – 500409701

*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>VCC 255 Emerging Media Design OR</td>
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<tr>
<td>Approved Technical Elective</td>
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#### Mixed Media Design Track – 500409705

*(Offered at BSC)*

<table>
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<tr>
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<th>Credits</th>
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<tr>
<td>Approved Technical Elective*</td>
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<td><strong>Subtotal</strong></td>
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#### Production Design Track – 500409703

*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>VCC 214 Production Design I</td>
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<td>VCC 216 Production Design II</td>
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<td>VCC 218 Production Design III</td>
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#### Total Credits for Production Design Track Diploma 54-57

*Approved Technical Electives include any VCA, VCC, or VCM course and the following IMD courses: IMD 133, IMD 180, IMD 230, IMD 232, IMD 240, IMD 250, IMD 255, and IMD 258.

### Diplomas

**Graphic Design – 5004094059**  
*(Offered at BSC)*

#### Required General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Written Communication OR</td>
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<tr>
<td>Oral Communications OR</td>
<td>3</td>
<td></td>
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<tr>
<td>Humanities/Heritage OR</td>
<td>3</td>
<td></td>
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<tr>
<td>Quantitative Reasoning OR</td>
<td>3</td>
<td></td>
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<tr>
<td>Natural Sciences OR</td>
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<td></td>
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<td>Social/Behavioral Sciences OR</td>
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#### Required Technical Core:

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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Digital Literacy</td>
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<tr>
<td>VCC 100 Introduction to Visual Communication</td>
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<tr>
<td>VCC 106 Typography</td>
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<td>VCC 105 Drawing Concepts OR</td>
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<td>VCC 125 Computer Graphics I</td>
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<td>VCC 280 Professional Portfolio Development</td>
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<td>VCC 297 Internship OR</td>
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#### Graphic Design Track – 500409401

*(Offered at BSC)*

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#### Total Credits for Graphic Design Track Diploma 54-57

**Mixed Media Design Track – 500409402**  
*(Offered at BSC)*

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#### Total Credits for Mixed Media Design Track Diploma 54-57

**Production Design Track – 500409403**  
*(Offered at BSC)*

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#### Total Credits for Production Design Track Diploma 54-57

*Approved Technical Electives include any VCA, VCC, or VCM course and the following IMD courses: IMD 133, IMD 180, IMD 230, IMD 232, IMD 240, IMD 250, IMD 255, and IMD 258.

207
**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.

**Certificates**

**Design Assistant – 5004093019**
*(Offered at BSC)*

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<td>VCC 110</td>
<td>Design Concepts</td>
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**Digital Photography – 5004093069**
*(Offered at BSC, SMC)*

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<td>Photoshop Basics</td>
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**Mixed Media Design Assistant – 5004093099**
*(Offered at BSC)*

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**Production Design Assistant – 5004093109**
*(Offered at BSC, WKC)*

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<td>VCC 216</td>
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*Approved Technical Electives include any VCA, VCC, or VCM courses, and the following IMD courses: IMD 133, IMD 180, IMD 230, IMD 232, IMD 240, IMD 250, IMD 255, and IMD 258.

**Associate in Applied Science**

**Multimedia - 1003047019**
*(Offered at HZC, SMC, WKC)*

**General Education Requirements:**

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**Technical Core**

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**Animation Track - 100304701**
*(Offered at)*

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<td>2-D Animation</td>
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<td>Advanced 3-D Animation</td>
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**Web Design Track - 100304702**
*(Offered at HZC, WKC)*

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<td>VCM 115</td>
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**Digital Design Track - 100304703**
*(Offered at SMC, WKC)*

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**Total Credits for AAS: Multimedia - Animation Track**

**Total Credits for AAS: Multimedia - Web Design Track**

**Total Credits for AAS: Multimedia - Digital Design Track**
### General Education Requirements

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<td>VCM 140</td>
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**Total Credits for AAS: Multimedia - Video Production Track** 66

### Multimedia Track – 100304706

*(Offered at HZC, WKC)*

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**Total Credits for AAS: Multimedia – Multimedia Track** 66

### Diploma

**Multimedia - 1003044019** *(Offered at WKC)*

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### Technical or Support Courses

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**Total for Animation Track** 57

### Web Design Track – 100304402

*(Offered at WKC)*

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**Total for Web Design Track** 57

### Digital Design Track – 100304404

*(Offered at SMC, WKC)*

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**Total for Digital Design Diploma** 57

### Video Production Track – 100304406

*(Offered at WKC)*

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**Total for Video Production Track** 57

### Multimedia Track – 100304401

*(Offered at SMC)*

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### Subtotal for Multimedia Track 57

### Certificates

### Animation - 1003043029

*(Offered at JFC, SMC)*

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<td>VCC 150</td>
<td>Mac Basics OR Digital Literacy course</td>
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<td>VCM 215</td>
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### Total for Multimedia Track 57

### Multimedia Track – 100304401

*(Offered at SMC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>VCC 220</td>
<td>InDesign Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 266</td>
<td>Advanced Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>VCC 255</td>
<td>Emerging Media Design</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 140</td>
<td>Digital Video</td>
<td>3</td>
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<td>VCM 220</td>
<td>Webpage Design</td>
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**Total for Multimedia Track** 57

### Web Design Track – 100304402

*(Offered at SMC)*

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<tr>
<th>Course</th>
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<tr>
<td>VCC 210</td>
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<td>3</td>
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<td>VCC 220</td>
<td>InDesign Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 266</td>
<td>Advanced Photoshop</td>
<td>3</td>
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**Total for Web Design Track** 57

### Digital Design Track – 100304404

*(Offered at SMC)*

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<td>VCC 220</td>
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<td>VCC 266</td>
<td>Advanced Photoshop</td>
<td>3</td>
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<tr>
<td><strong>Approved Technical Electives</strong></td>
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**Total for Digital Design Diploma** 57

### Video Production Track – 100304406

*(Offered at WKC)*

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<tbody>
<tr>
<td>VCC 255</td>
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<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
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<td>VCM 220</td>
<td>Webpage Design</td>
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<tr>
<td>VCM 230</td>
<td>Advanced Webpage Design</td>
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**Total for Video Production Track** 57

### Multimedia Track – 100304401

*(Offered at SMC)*

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<td>VCC 270</td>
<td>Acrobat Basics</td>
<td>3</td>
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<tr>
<td>VCA 280</td>
<td>Professional Portfolio Development</td>
<td>3</td>
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<tr>
<td>VCC 297</td>
<td>Internship OR Practicum</td>
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<td>Cooperative Education OR</td>
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### Subtotal for Multimedia Track 57

### Certificates

### Animation - 1003043029

*(Offered at JFC, SMC)*

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<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
<td>3</td>
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<tr>
<td>VCC 106</td>
<td>Typography</td>
<td>3</td>
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<tr>
<td>VCA 108</td>
<td>Color Theory</td>
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<td>VCC 110</td>
<td>Design Concepts</td>
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<td>VCC 125</td>
<td>Computer Graphics I</td>
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<td>VCC 150</td>
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<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
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<td>VCM 210</td>
<td>3-D Animation</td>
<td>3</td>
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</table>

**Total for Multimedia Track** 57
### 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**

<table>
<thead>
<tr>
<th>Course</th>
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<td>ENG 101</td>
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<tr>
<td>VCA 108</td>
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<td>VCC 100</td>
<td>3</td>
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<tr>
<td>VCC 105</td>
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</tr>
<tr>
<td>VCC 166</td>
<td>3</td>
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<td>VCC 200</td>
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<td>VCC 220</td>
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<td>VCM 166</td>
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<td>VCC 297</td>
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**Total** 15

**Required Core:**

<table>
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<td>VCA 120</td>
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<td>VCC 100</td>
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<td>VCC 220</td>
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<td>VCM 150</td>
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<td>VCC 297</td>
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**Total** 45-48

Total for AAS Visual Communication:

- **Printing-Digital Production Artist** 60-63

#### Diplomas

**Digital Production Artist - 1003014019**

(Offered at BSC, JFC, SMC)

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course</th>
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<td>Written Communication OR</td>
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<tr>
<td>Oral Communications OR</td>
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</tr>
<tr>
<td>Humanities/Heritage OR</td>
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<tr>
<td>Quantitative Reasoning OR</td>
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<tr>
<td>Natural Sciences</td>
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<tr>
<td>Social/Behavioral Sciences</td>
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**Subtotal** 6

**Technical or Support Courses**

<table>
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<tr>
<th>Course</th>
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<td>Digital Literacy</td>
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<td>VCA 108</td>
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<td>VCC 100</td>
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<tr>
<td>VCC 166</td>
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210
Technical or Support Courses

<table>
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<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
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<tr>
<td>VCC 105</td>
<td>Fundamentals of Typography and Design</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 220</td>
<td>InDesign Basics</td>
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VCC 166 Photoshop Basics ........................................................ 3
VCC 220 InDesign Basics .......................................................... 3
Approved Electives ...................................................6
Total 15

Digital Imaging Assistant - 1003013059

(Offered at BSC, SMC)

Technical or Support Courses

<table>
<thead>
<tr>
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<th>Course Title</th>
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<td>VCC 166</td>
<td>Photoshop Basics</td>
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<td>VCA 120</td>
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**Visual Communication: Visual Arts**

Students desiring certificates in two-dimensional arts (such as painting or photography), or three-dimensional arts (such as sculpture or ceramics), may select this avenue and/or may participate in the full degree concurrently. The certificates are designed to meet the needs of the many non-traditional and part-time students and artisans of Kentucky. The certificate option will also help introduce the program to students who are not immediately willing to commit to a degree program but whom still desire professional training in the visual arts.

**Certificates**

2-Dimensional Studies - 5007063019

(Offered at JFC)

<table>
<thead>
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<th>Course Title</th>
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<tr>
<td>ART 110</td>
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<td>ART 112</td>
<td>2-Dimensional Design</td>
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<tr>
<td>ART 105</td>
<td>Ancient through Medieval Art History OR</td>
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</tr>
<tr>
<td>ART 106</td>
<td>Renaissance through Modern Art History OR</td>
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3-Dimensional Studies - 5007063029

(Offered at JFC)

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<th>Course Title</th>
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<tr>
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<td>ART 113</td>
<td>3-Dimensional Design</td>
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<tr>
<td>ART 105</td>
<td>Ancient through Medieval Art History OR</td>
<td>3</td>
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<tr>
<td>ART 106</td>
<td>Renaissance through Modern Art History OR</td>
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<tr>
<td>Approved Art History Course</td>
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**Volumetric Medical Imaging**

The Volumetric Medical Imaging (VMI) Certificate is designed for students who are certified radiologic technologists. Students will learn to identify anatomical features in cross section and volume, reconstruct volumetric data from 2D radiological data, recognize pathologic anatomy and manipulate volumes for physicians to review. Graduates will be qualified to seek employment in radiology departments of hospitals or with private companies who contract this service. Academic Program Coordinator permission is required to enter the certificate program.

Prerequisites: Basic computer literacy, such as CIS 100 or equivalent, BIO 137, 139.

Certificate

Volumetric Medical Imaging - 5109113019

<table>
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<tr>
<th>Course Code</th>
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<td>BIO 137</td>
<td>Human Anatomy and Physiology I*</td>
<td>4</td>
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<td>BIO 139</td>
<td>Human Anatomy and Physiology II*</td>
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<td>VMI 200</td>
<td>Sectional Anatomy &amp; Pathology I</td>
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<tr>
<td>VMI 201</td>
<td>Sectional Anatomy &amp; Pathology II</td>
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<tr>
<td>VMI 210</td>
<td>Volumetric Medical Imaging I</td>
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<td>VMI 211</td>
<td>Volumetric Medical Imaging II</td>
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*BIO 137 & 139 must have been completed within the last 10 years.

Welding Technology

The Welding Technology Program is dedicated to welding education, technology and student success. Students in this program will learn various welding techniques, careers and the skills needed to be successful in the Welding Technology field. Welding occupations are primarily concerned with joining, surfacing, or repairing structures or parts made of metal or other weldable materials. The skills and knowledge needed to determine the appropriate welding technique required for a specific project and to successfully perform that technique are gained through coursework and practical experience. The program offers a wide range of credentials including the Associate in Applied Science Degree, Diploma, and eleven certificates in Welding Technology.

Associate in Applied Science

Welding Technology - 4805087019

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

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<td>3</td>
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<td>MAT 110</td>
<td>Applied Mathematics OR</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics OR</td>
<td>3</td>
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<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>3</td>
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<td>MA 109</td>
<td>College Algebra</td>
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<td>MA 109</td>
<td>Heritage/Humanities</td>
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<tr>
<td>PHY 151</td>
<td>Introductory Physics I AND</td>
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<td>PHY 161</td>
<td>Introductory Physics Lab I</td>
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<td>PSU 110</td>
<td>General Psychology OR</td>
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<td>SOC 101</td>
<td>Introduction to Sociology</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication OR</td>
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<td>COM 181</td>
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Required

WLD 100 Oxy-Fuel Systems OR ................................................. 2
WLD 110 Cutting Processes ..................................................... (2)
WLD 111 Cutting Processes Lab ................................................ (3)
WLD 120 Shielded Metal Arc Welding (SMAW) .................. 2
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab ........... 3
WLD 123 Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR ..................................................... (3)
WLD 225 Shielded Metal Arc Welding (SMAW) Open Groove Lab ..................................................... (3)
WLD 130 Gas Tungsten Arc Welding (GTAW) ................................................. 2
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab ........... 3
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab ........... 3
WLD 140 Gas Metal Arc Welding (GMAW) ................................................. 2
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab ........... 3
WLD 143 Gas Metal Arc Welding (GMAW) Groove Lab ........... 3
WLD 170 Blueprint Reading for Welding ..................................................... 2
WLD 221 Welding Certification Lab ................................................ (3)
WLD 298 Welding Practicum OR ..................................................... 1 - 4
WLD 299 Cooperative Work Experience ................................................. 1 - 4
Technical Electives ..................................................... 3

Subtotal 42 - 49

Total Credits 60 – 68

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

Diploma

Combination Welder - 4805084029

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

ENG 101 Writing I OR ..................................................... 3
TEC 200 Technical Communications ..................................................... (3)
MAT 110 Applied Mathematics ..................................................... 3
MAT 116 Technical Mathematics ..................................................... (3)
MAT 146 Contemporary College Mathematics OR ..................................................... (3)
MAT 150 College Algebra OR ..................................................... 3
MA 109 College Algebra ..................................................... 3

General Education Total Credits 6

*Technical Electives:

WLD 299 Cooperative Work Experience ................................................. 1 - 4
Technical Elective ..................................................... 2 - 3

Subtotal 41-49

Total Credits 47-55

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

Certificates

Welder Helper - 4805083129

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

WLD 151 Basic Welding A OR ..................................................... 2
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab OR ..................................................... 3
WLD 130 Gas Tungsten Arc Welding (GTAW) Fillet Lab OR ..................................................... (2)
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab OR ..................................................... (3)
WLD 140 Gas Metal Arc Welding (GMAW) AND ..................................................... (2)
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab OR ..................................................... (3)
WLD 152 Basic Welding B OR ..................................................... (5)
IMT 100 Welding for Maintenance AND ..................................................... (3)
IMT 101 Welding for Maintenance Lab ..................................................... 2

Total Credits 2-5

Gas Welder - 4805083039

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

WLD 100 Oxy-Fuel Systems ..................................................... 2
WLD 101 Oxy-Fuel Systems Lab ..................................................... 2

Total Credits 4

ARC Cutter - 4805083099

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

WLD 110 Cutting Processes ..................................................... 2
WLD 111 Cutting Processes Lab ..................................................... 3

Total Credits 5

Tack Welder - 4805083119

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

WLD 170 Blueprint Reading for Welding ..................................................... 2
WLD 171 Blueprint Reading for Welding Lab ..................................................... 3
WLD 151 Basic Welding A OR ..................................................... 2
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab OR ..................................................... 3
WLD 130 Gas Tungsten Arc Welding (GTAW) Fillet Lab OR ..................................................... (3)
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab OR ..................................................... (3)
WLD 140 Gas Metal Arc Welding (GMAW) AND Gas Metal Arc Welding (GMAW) Fillet Lab OR ............................................. (3)  
WLD 141 Gas Metal Arc Welding (GMAW) Basic Welding B ............................................................................ (5)  
Total Credits 7-10

Production Line Welder - 4805083059

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

WLD 130 Gas Tungsten Arc Welding (GTAW) .......................................................... 2  
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab .......................................... 3  
WLD 140 Gas Metal Arc Welding (GMAW) ............................................................. 2  
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab .............................................. 3  
WLD 100 Oxy-Fuel Systems Lab OR ........................................................................ 2  
WLD 110 Cutting Processes ....................................................................................... 2  
WLD 101 Oxy-Fuel Systems Lab OR ........................................................................ 2  
WLD 111 Cutting Processes Lab ................................................................................ 3  
WLD 120 Shielded Metal Arc Welding (SMAW) .................................................... 2  
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab ......................................... 3  
Total Credits 19-20

ARC Welder - 4805083029

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

WLD 100 Oxy-Fuel Systems OR ................................................................................ 2  
WLD 110 Cutting Processes ....................................................................................... 2  
WLD 101 Oxy-Fuel Systems Lab OR ......................................................................... 2  
WLD 111 Cutting Processes Lab ................................................................................ 3  
WLD 120 Shielded Metal Arc Welding (SMAW) ...................................................... 2  
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab OR ................................. 3  
WLD 123 Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR .......... 3  
WLD 225 Shielded Metal Arc Welding (SMAW) Open Groove Lab ......................... 3  
WLD 130 Gas Tungsten Arc Welding (GTAW) ......................................................... 2  
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab OR ..................................... 3  
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab ....................................... 3  
WLD 140 Gas Metal Arc Welding (GMAW) ............................................................. 2  
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab OR ......................................... 3  
WLD 143 Gas Metal Arc Welding (GMAW) Fillet Groove Lab .................................... 3  
WLD 170 Blueprint Reading for Welding .................................................................. 2  
WLD 171 Blueprint Reading for Welding Lab ............................................................ 3  
Total Credits 24-25

Pipeline Welder - 4805083109

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

WLD 100 Oxy-Fuel Systems OR ................................................................................ 2  
WLD 110 Cutting Processes ....................................................................................... 2  
WLD 101 Oxy-Fuel Systems Lab OR ......................................................................... 2  
WLD 111 Cutting Processes Lab ................................................................................ 3  
WLD 120 Shielded Metal Arc Welding (SMAW) ...................................................... 2  
WLD 130 Gas Tungsten Arc Welding (GTAW) ......................................................... 2  
WLD 140 Gas Metal Arc Welding (GMAW) ............................................................. 2  
WLD 170 Blueprint Reading for Welding .................................................................. 2  
WLD 171 Blueprint Reading for Welding Lab ............................................................ 3  
WLD 220 Welding Certification ............................................................................... 2  
WLD 221 Welding Certification Lab .......................................................................... 3  
WLD 227 Shielded Metal Arc Welding (SMAW) 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 Credits 29-40

Recommended Electives:

WLD 229 Shielded Metal Arc Welding (SMAW) Pipe Lab B ...................................... (3)  
WLD 237 Gas Tungsten Arc Welding (GTAW) Pipe Lab B ...................................... (3)  
WLD 247 Gas Metal Arc Welding (GMAW) Pipe Lab B .......................................... (3)  
WLD 253 Pipe Fitting and Template Development Lab ............................................. (1)  
Total 29-40

AWS National Skills Standards Level I - 4805083089

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

WLD 100 Oxy-Fuel Systems OR ................................................................................ 2  
WLD 110 Cutting Processes ....................................................................................... 2  
WLD 101 Oxy-Fuel Systems Lab OR ......................................................................... 2  
WLD 111 Cutting Processes Lab ................................................................................ 3  
WLD 120 Shielded Metal Arc Welding (SMAW) ...................................................... 2  
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab ......................................... 3  
WLD 123 Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR .......... 3  
WLD 225 Shielded Metal Arc Welding (SMAW) Open Groove Lab ......................... 3  
WLD 130 Gas Tungsten Arc Welding (GTAW) ......................................................... 2  
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab ......................................... 3  
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab ....................................... 3  
WLD 140 Gas Metal Arc Welding (GMAW) ............................................................. 2  
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab .............................................. 3  
WLD 143 Gas Metal Arc Welding (GMAW) Fillet Groove Lab .................................... 3  
WLD 170 Blueprint Reading for Welding .................................................................. 2  
WLD 171 Blueprint Reading for Welding Lab ............................................................ 3  
Total Credits 17-18

Shielded Metal Arc Welding - 4805083139

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

WLD 120 Shielded Metal Arc Welding (SMAW) ...................................................... 2  
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab ......................................... 3  
WLD 123 Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR .......... 3  
WLD 225 Shielded Metal Arc Welding (SMAW) Open Groove Lab ......................... 3  
WLD 170 Blueprint Reading for Welding .................................................................. 2  
WLD 171 Blueprint Reading for Welding Lab ............................................................ 3  
WLD 100 Oxy-Fuel Systems OR ................................................................................ 2  
WLD 110 Cutting Process ......................................................................................... 2  
WLD 101 Oxy-Fuel Systems Lab OR ......................................................................... 2  
WLD 111 Cutting Processes Lab ................................................................................ 3  
Total Credits 17-18

Gas Metal Arc Welding - 4805083149

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

WLD 140 Gas Metal Arc Welding (GMAW) ............................................................. 2  
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab .............................................. 3  
WLD 143 Gas Metal Arc Welding (GMAW) Groove Lab OR ..................................... 3  
WLD 245 Gas Metal Arc Welding (GMAW) Pipe Lab A OR .................................... (3)  
WLD 147 Flux Cored Arc Welding (FCAW) Lab ..................................................... (1)  
WLD 170 Blueprint Reading for Welding .................................................................. 2  
WLD 171 Blueprint Reading for Welding Lab ............................................................ 3  
WLD 100 Oxy-Fuel Systems OR ................................................................................ 2  
WLD 110 Cutting Process ......................................................................................... 2  
WLD 101 Oxy-Fuel Systems Lab OR ......................................................................... 2  
WLD 111 Cutting Processes Lab ................................................................................ 3  
Total Credits 15-18

Gas Tungsten Arc Welding - 4805083159

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

WLD 130 Gas Tungsten Arc Welding (GTAW) ......................................................... 2  
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab ......................................... 3  
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab OR ................................ (3)  
WLD 235 Gas Tungsten Arc Welding (GTAW) Pipe Lab A ...................................... (3)  
WLD 170 Blueprint Reading for Welding .................................................................. 2  
WLD 171 Blueprint Reading for Welding Lab ............................................................ 3  
WLD 100 Oxy-Fuel Systems OR ................................................................................ 2  
WLD 110 Cutting Process ......................................................................................... 2  
WLD 101 Oxy-Fuel Systems Lab OR ......................................................................... 2  
WLD 111 Cutting Processes Lab ................................................................................ 3  
Total Credits 17-18

213
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</th>
<th>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</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 268*</td>
<td>History of Women in America</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives (Selected from the following list or by consent of instructor) ................................. 6

**Total Credits** ................................. 12

Note: HIS 265 satisfies general education and cultural studies requirements. HIS 266 and HIS 267 do not meet general education nor cultural studies requirements.

**Women’s and Gender Studies Electives: (Required: 6 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 160</td>
<td>Cultural Diversity in the Modern World</td>
<td>3</td>
</tr>
<tr>
<td>ANT 220</td>
<td>Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 120</td>
<td>Human Ecology</td>
<td>3</td>
</tr>
<tr>
<td>COM 299</td>
<td>Special Topics in Communication: Gender and Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 233</td>
<td>Literature and Identities: (Sexuality &amp; Representation)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 232</td>
<td>Literature and Place (Sub-topic required)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 234</td>
<td>Introduction to Women’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>FAM 253</td>
<td>Human Sexuality: Development, Behavior, and Attitudes</td>
<td>3</td>
</tr>
<tr>
<td>FLK 276</td>
<td>Introduction to Folk Studies</td>
<td>3</td>
</tr>
<tr>
<td>FLK 280</td>
<td>Cultural Diversity in the United States</td>
<td>3</td>
</tr>
<tr>
<td>GEO 160</td>
<td>Lands and Peoples of the Non-Western World</td>
<td>3</td>
</tr>
<tr>
<td>GEO 240</td>
<td>Geography and Gender</td>
<td>3</td>
</tr>
<tr>
<td>HIS 265</td>
<td>History of Women in America</td>
<td>3</td>
</tr>
<tr>
<td>HIS 266*</td>
<td>History of American Women to 1920*</td>
<td>3</td>
</tr>
<tr>
<td>HIS 267*</td>
<td>History of American Women from 1920*</td>
<td>3</td>
</tr>
<tr>
<td>HUM 121</td>
<td>Peace Studies</td>
<td>3</td>
</tr>
<tr>
<td>PHI 130</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHI 110</td>
<td>Medical Ethics</td>
<td>3</td>
</tr>
<tr>
<td>REL 101</td>
<td>Introduction to Religious Studies</td>
<td>3</td>
</tr>
<tr>
<td>SOC 235</td>
<td>Inequality in Society</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>The Family</td>
<td>3</td>
</tr>
<tr>
<td>WGS 200*</td>
<td>Introduction to Women’s and Genders Studies in the Social Sciences*</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>
</tbody>
</table>

**Total Credits** ................................. 12

**Certificate**

**Workplace Safety Specialist – 1507993010**  
*(Offered at MYC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>ISX</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>HSM</td>
<td>Introduction to Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>AHSM</td>
<td>Introduction to Public and Community Health</td>
<td>3</td>
</tr>
</tbody>
</table>

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

**Associate in Fine Arts (A.F.A.) Curricula**

**Digital Cinematic Arts**

The Associate in Fine Arts (AFA) in Digital Cinematic Arts degree program is designed for students who plan to transfer to a four-year institution to acquire a Bachelor of Fine Arts in (Digital) Cinematic Arts related fields. The embedded certificate program is designed to accommodate non-degree seeking students that wish to increase their knowledge and skills for the workplace. The program includes standard, transferable general education requirements for students seeking a higher degree. Technical courses in film history, film production techniques, cinematography, digital media, and writing for film are required in the core. Courses are offered in areas such as screenwriting, digital media design, camera, audio, acting and editing. Students will focus on the application of skills in the production of several finished short films.

Due to the nature of the digital cinematic arts, multiple ways of understanding/communicating are explored and critical competencies like creative problem solving, collaboration, time management and critical thinking are learned and practiced. Upon completion, graduates will be prepared for careers in the growing film industry in Kentucky, transfer to a 4-year institution, and for employment worldwide — in this growing medium.

**Associate in Fine Arts**

**Digital Cinematic Arts – 5006027029**  
*(Offered at BLC)*

**General Education Core Requirements** ................................. 24

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing I</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>
</tbody>
</table>

**Digital Literacy** ................................. 0-3

Digital Literacy must be demonstrated either by competency exam or by completing an Approved digital literacy course.

**Digital Cinematic Arts Core** ................................. 26

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLM 112</td>
<td>Filmmaking: Treatment to Short Screen Play</td>
<td>4</td>
</tr>
<tr>
<td>FLM 122</td>
<td>Filmmaking: Storyboard through Production</td>
<td>4</td>
</tr>
</tbody>
</table>
Theatre Arts

The Associate in Fine Arts (AFA) in Theatre degree program is designed for students who plan to transfer to a four-year institution in order to pursue a BFA in the Theatre Arts and/or acquire credentials for a career in arts-related areas. The program includes general education requirements, Theatre foundation courses in acting and stagecraft, as well as a wide variety of performance and production-related electives. Students will focus on the development of performance skills and a basic knowledge of technical theatre, while participating firsthand in fully realized theatrical productions every semester. Classes will also encourage analytical skills and critical analysis. Students will be encouraged to participate in state and regional theatre auditions and festivals with audition pieces prepared specifically with an eye toward securing professional work.

### Associate in Fine Arts

#### Theatre

(Offered at HZC, OWC)

<table>
<thead>
<tr>
<th>General Education Core Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Writing/Accessing Information</strong></td>
<td>25</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities (not including THA classes)</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Natural Sciences with laboratory</td>
<td>4</td>
</tr>
<tr>
<td>MA 109 College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MA 111 Contemporary Mathematics OR</td>
<td></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.

#### Visual Art

(Offered at BLC, OWC)

<table>
<thead>
<tr>
<th>General Education Core Requirements</th>
<th></th>
</tr>
</thead>
<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>
</tbody>
</table>

### Theatre Core

(Offered at BLC)

<table>
<thead>
<tr>
<th>Concentration (Choose 12 hours from approved Digital Cinematic Arts Electives)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FLM 190 Film Boot Camp*</td>
<td>3</td>
</tr>
<tr>
<td>FLM 210 Screenwriting</td>
<td>3</td>
</tr>
<tr>
<td>FLM 291 Cinematic Arts Internship</td>
<td>3</td>
</tr>
<tr>
<td>IMD 115 Introduction to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 128 Raster Design with Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 228 Advanced Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 240 Multimedia Development for the Web</td>
<td>3</td>
</tr>
<tr>
<td>THA 126 Fundamentals of Acting</td>
<td>3</td>
</tr>
<tr>
<td>THA 203 Acting for Film</td>
<td>3</td>
</tr>
</tbody>
</table>

### Practicum Core

(Offered at BLC)

<table>
<thead>
<tr>
<th>Concentration (Choose 18 hours from the Approved Theatre Electives)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 127 Acting Techniques</td>
<td>3</td>
</tr>
<tr>
<td>THA 150 Fundamentals of Production</td>
<td>3</td>
</tr>
<tr>
<td>THA 200 Introduction to Dramatic Literature</td>
<td>3</td>
</tr>
<tr>
<td>THA 283 American Theatre</td>
<td>3</td>
</tr>
<tr>
<td>FLM 110 Filmmaking: Treatment through Storyboard</td>
<td>4</td>
</tr>
<tr>
<td>FLM 120 Filmmaking: Storyboard through Production</td>
<td>4</td>
</tr>
<tr>
<td>FLM 130 Filmmaking: Editing through Distribution</td>
<td>4</td>
</tr>
<tr>
<td>FLM courses are co-requisites</td>
<td></td>
</tr>
<tr>
<td>MUS 192 University Chorus</td>
<td>1</td>
</tr>
<tr>
<td>ART 110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 281 Introduction to Film</td>
<td>3</td>
</tr>
<tr>
<td>ENG 282 International Film Studies</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250 Digital Video Editing Final Cut</td>
<td>3</td>
</tr>
<tr>
<td>Other Courses approved by program coordinator</td>
<td></td>
</tr>
</tbody>
</table>

### Visual Art

(Offered at HZC, OWC, WKC)

<table>
<thead>
<tr>
<th>Concentration (Approved Theatre Electives)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 191 Performance Practicum (May be repeated to equal 3 hours, OR.)</td>
<td>3</td>
</tr>
<tr>
<td>TA 195 Special Projects in Theatre Arts (Project Title) OR</td>
<td>3</td>
</tr>
<tr>
<td>THA 196 Summer Theatre Workshop</td>
<td>3</td>
</tr>
</tbody>
</table>

### Summary

- **General Education Core Requirements**: 25–28
- **Theatre Core Requirements**: 15
- **Practicum Core**: 3
- **Concentration (Approved Theatre Electives)**: 18
- **Total Credits**: 61–64
Arts & Humanities ................................................... 3
(The course chosen to satisfy this requirement must be from a
discipline other than the discipline in the Fine Arts Core and/
or Concentration)
Social/Behavioral Sciences ..........................................6
Natural Sciences ...................................................... 3
(Must include a laboratory experience for general education
certification in the Natural Sciences category)
Quantitative Reasoning ............................................... 3
Subtotal ................................................................. 24

Fine Arts Core (Visual Art track)
ART 105 Ancient through Medieval Art History ................. 3
ART 106 Renaissance through Modern Art History .......... 3
ART 110 Drawing I ................................................... 3
ART 112 2-Dimensional Design ................................... 3
ART 113 3-Dimensional Design ................................... 3
ART 210 Drawing II .................................................. 3
Subtotal ................................................................. 18

Concentration (Choose 18 hours from the Approved Art Studio Electives) .................................................. 18
ART 211 Life Drawing ............................................... 3
ART 220 Painting I ................................................. 3
ART 221 Painting II ............................................... 3
ART 231 Jewelry/Metals I .......................................... 3
ART 232 Jewelry/Metals II ........................................... 3
ART 240 Ceramics I .................................................. 3
ART 241 Ceramics II .................................................. 3
ART 251 Graphic Communication I ............................. 3
ART 252 Typography ............................................. 3
ART 253 Graphic Communication II .............................. 3
ART 254 Design Process and Presentation ...................... 3
ART 260 Sculpture I ............................................... 3
ART 261 Sculpture II ............................................... 3
ART 270 Printmaking I ............................................. 3
ART 271 Printmaking II ............................................ 3
ART 280 Beginning Film Photography ......................... 3
ART 281 Digital Photography I .................................. 3
ART 282 Digital Photography II .................................. 3
ART 290 Survival Skills for Artists ............................... 3
ART 299 Directed Studies in Art .................................. 3

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.
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.

A&S Arts & Sciences

A&S 100(1 - 6) Course ID: 002195
Special Introductory Course
This course permits the offering at the introductory level of special courses of an interdisciplinary, topical, or experiential nature. Each proposal must be approved by the Dean of the College of Arts and Sciences. A particular title may be offered at most twice under the A&S 100 number. Students may not repeat under the same title. May be repeated to a maximum of 12 credits. Pre-requisite: Will be set by instructor.
Components: Lecture
Attributes: Other

AAD Arts Administration

AAD 200(3) Course ID: 004620
Fundamentals of Arts Administration
Arts administration, planning, evaluation, funding and finance in arts organizations are emphasized. Students are engaged in arts management projects related to career goals. Lecture: 3 credits (45 contact hours). Pre-requisite: AAD 100, ENG 102.
Components: Lecture
Attributes: Technical

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

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: Sophomore standing (30 credit hours) or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACC 202(1) 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: 1 credit (15 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACC 2021(1) Course ID: 005949
Cost Terms Concepts, and Classifications
Introduces the student to managerial accounting, differentiates between financial and managerial accounting, and presents cost and cost behaviors. Pre-requisite: ACC 201 or (ACT 101 and ACT 102). Lecture: 1 credit (15 contact hours).
Components: Lecture

ACC 2022(1) Course ID: 005950
Planning and Control
Components: Lecture

ACC 2023(1) Course ID: 005951
Using Cost Data in Decision Making
Introduces the student to master and capital budgets. Pre-requisite: ACC 2022. Lecture: 1 credit (15 contact hours).
Components: Lecture

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 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 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 newswerves 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 projects, 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:004856
Computer Aided Drafting I
Students learn how computer hardware and software are used in preparing architectural documents. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Computer Literacy, Technical

ACH 198(1 - 3)  Course ID:015986
Practicum in Architectural Technology
Provides supervised, on-the-job work experience related to the student’s educational objectives; students who participate in the practicum do not receive compensation. Pre-requisite: Completion of a minimum of 12 hours in Architectural Technology (ACH) courses with a min. cumulative GPA of 2.0 in all courses. Practicum: 1.0 -3.0 credits (40-120 contact hours).
Components: Practicum
Attributes: Technical

ACH 200(3)  Course ID:004688
Construction Documents III
This is the third course of a four-semester studio sequence. Students study the methods by which commercial buildings are designed and constructed. Basic skills are developed relating to the implementation of design 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 215(3)  Course ID:004689
Building Codes I
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 225(3)  Course ID:004687
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 110 and ACH 200 or equivalent. Components: Lecture
Attributes: Technical

ACH 275(3)  Course ID:004692
Mechanical and Electrical Systems
Students engage in a qualitative and quantitative study of environmental control systems using 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:016138
Revit/Building Information Modeling
Introduces Building Information Modeling (BIM) using Autodesk Revit or other similar and related software, methods and processes. Provides students with skills to produce and present residential and commercial design models, construction documents, and to extract information and data from the model. Incorporates investigations into issues related to sustainable design and the integration of other software for related analysis. Pre-requisite: ACH 195, or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 285(3)  Course ID:005464
Computer-Aided Drafting II
Students learn how to modify selected computer-aided drafting software to enhance construction document production. Integration of other software will also be discussed. 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 II
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 project organization, 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 III
This course will be a 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:004693
Computer-Aided Drafting I
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
also be discussed. Pre-requisite: ACH 195 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Laboratory 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 design-oriented presentations. Pre-requisite: ACH 150 and ACH 185 or consent of instructor.

Components: Lecture Attributes: Technical

ACR Air Conditioning and Refrigeration

ACR 100(3) Course ID:000949

Refrigeration Fundamentals

Introduces refrigerant piping and fundamentals of refrigeration including environmental issues associated with HVAC. Co-requisite: ACR 101. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

ACR 101(2) Course ID:000950

Refrigeration Fundamentals Lab

Introduces fundamentals of refrigeration including environmental issues associated with HVAC and refrigerant piping. Develops proper hands-on techniques in the servicing and troubleshooting of basic systems. Stress 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

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 application of Ohm's law; and measures resistance, voltage, ohms, watts and amps; constructs various types of electrical circuits; selects wire and fuse sizes; and learns 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 198(2) Course ID:000958

Instructor Consent Required

Practicum

Practicum provides supervised on-the-job work experience related to the student's educational objectives. Students participating in Practicum do not receive compensation. Pre-requisite: Permission of the Instructor.

Components: Practicum Attributes: Technical

ACR 200(3) Course ID:000960

Commercial Refrigeration

Develops techniques for servicing and troubleshooting mechanical and electro-mechanical refrigeration components. Emphasizes electrical and refrigeration safety. Covers proper tool use and environmentally sound refrigerant handling. 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:007376

Boilers

Develops techniques for servicing, troubleshooting and performing preventive maintenance on steam generating systems. Emphasizes electrical and steam safety. Covers proper tool and instrument use and practices for efficient applications on steam systems used in commercial and industrial settings. Pre-requisite: ACR 100 and ACR 102. Lecture: 5.0 credits (105 contact hours).

Components: Lecture Attributes: Technical

ACR 207(5) Course ID:007377

Commercial HVAC Systems

Develops techniques for servicing, troubleshooting and performing preventive maintenance on commercial HVAC systems. Emphasizes electrical and mechanical safety. Covers tools and instruments used in installing, troubleshooting, and performing preventive maintenance on commercial HVAC systems. Pre-requisite: (ACR 100 and ACR 101) and ACR 102 or Consent of the Instructor. Lecture/Lab: 5.0 credits (105 contact hours).

Components: Lecture Attributes: Technical

ACR 208(4) Course ID:007378

Chillers

Develops techniques for servicing, troubleshooting and performing preventive maintenance on high-pressure, low-pressure and absorption chilled water systems. Emphasizes electrical and safety. Covers proper tool and instrument use and practices for the efficient applications on chilled water systems used in commercial and industrial installations. Pre-requisite: ACR 100 and ACR 102 and ACR 103. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Attributes: Technical

ACR 209(4) Course ID:007379

Manual N Commercial Load Calculation and Design

Introduces students to basic physics of electricity. 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 251. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

ACR 251(2) Course ID:000964

Cooling and Dehumidification Lab

Prepares the student for installing, servicing, and troubleshooting air conditioning systems with water and air cooled condensers and line and low voltage. 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

Discuss principles of operation and application of heating systems from simple electric and fossil fuel burners through more complex systems such as oil burners, boilers, and hydronic systems. Concentrates on both line and control voltage circuitry pertaining to these systems. Pre-requisite: ACR 102 & 103 or ETT 154 & 155 or ETT 112 & 113 or IMT 110 & 111 or consent from the Instructor. Co-requisite: ACR 262. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical
Co-op provides supervised on-the-job work experience.

ACR 299(2) Course ID: 000974
Attributes: Technical
Components: Practicum
Pre-requisite: Permission of the Instructor.
Students participating in Practicum do not receive compensation. Pre-requisite: Permission of the Instructor.
Components: Practicum
Attributes: Technical

ACR 270(3) Course ID: 000967
Attributes: Technical

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.
Components: Lecture

ACR 271(2) Course ID: 000968
Attributes: Technical

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.
Components: Laboratory

ACR 290(3) Journeymen Preparation
Attributes: Technical

Special Problems I
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor.
Components: Laboratory

ACR 291(1) Instructor Consent Required
Components: Technical

Special Problems II
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor.
Components: Laboratory

ACR 292(2) Instructor Consent Required
Components: Technical

ACR 293(3) Instructor Consent Required
Components: Technical

Special Problems III
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor.
Components: Laboratory

ACR 295(3) Instructor Consent Required
Components: Technical

ACR 298(2) Instructor Consent Required
Components: Technical

Practicum
Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in Practicum do not receive compensation. Pre-requisite: Permission of the Instructor.
Components: Practicum
Attributes: Technical

ACR 299(2) Instructor Consent Required
Components: Technical

Co-op provides supervised on-the-job work experience
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

**ADX 150(3) Course ID:000985**

**Engine Repair**

Provides a series of lectures and demonstrations on the fundamentals of engine repair, troubleshooting, and engine operation and maintenance. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**ADX 151(2) Course ID:000986**

**Engine Repair Lab**

Provides practical experiences and applications relating to engine repair, inspection, trouble shooting and maintenance. The student may be provided a work experience alternating between periods of work off campus and 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 trouble shoot, repair and perform maintenance on heating and air conditioning systems. Provides experiences in safety precautions, special tool uses, component operation and how to service and trouble shoot the complete system. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting.

**AET Aeronautics**

**AET 110(3) Course ID:006516**

**Fundamentals of Aerodynamics/Private Pilot Ground School**

Covers the fundamentals of aerodynamics aircraft systems, aeronautical decision making (ADM), applicable federal regulations, flight planning and aeronautical charts, meteorology, flight navigation, and weight and balance. Requires no previous aviation experience and is formatted to take “zero” time students and ready them for the national private pilot examination. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Pilot Course, Technical

**AER Aeronautics**

**AET 100(1) Course ID:006358**

**Introduction to Lean Systems**

Presents methodologies for Lean systems to include Lean manufacturing basics and tools, Lean implementation, Lean measures, Six-Sigma, and Lean supply chain design and management. Lecture: 1 credit (15 contact hours).

Components: Lecture Attributes: Technical

**AET 102(4) Course ID:006359**

**Introduction to Energy**

Introduces the scientific principles of energy and fuels and investigates specific topics: nature and extent of energy resources, economics and environmental effects, alternative energy, energy technology, health and safety. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Attributes: Technical

**AET 110(4) Course ID:006360**

**Introduction to Circuit Analysis**

Covers basic electrical components as well as DC/AC circuit configurations; introduces the theory and operation of solid state devices such as diodes, BJTs, FETs, and operational amplifiers; emphasizes circuit construction, analysis, and troubleshooting. Co-requisite: MT 125 or Consent of Instructor. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Attributes: Technical

**AET 112(4) Course ID:006361**

**Alternative Energy Fundamentals**

Addresses topics of alternative energy sources including passive and active solar systems, fuel cells, hydroelectric power, geothermal heat transfer, photovoltaic systems, bio fuels, and wind energy. Pre-requisite: AET 102. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Attributes: Technical

**AET 114(4) Course ID:006362**

**Solar and Wind Energy Generation**

Introduces the methods and equipment necessary for the production of electrical energy by alternative means to include photovoltaic systems, wind turbines and solar water heating. Pre-requisite: AET 110 or consent of instructor. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Attributes: Technical

**AET 120(4) Course ID:006363**

**Power Electronics**

Introduces the circuitry and components used to convert the power generated by alternative methods to livable and current values commonly used in residential and commercial electrical installations; includes Thyristor theory and application, inverter types and application, and battery charging and maintenance. Pre-requisite: AET 110 or Consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture Attributes: Technical

**AET 130(3) Course ID:006364**

**Industrial Sensors**

Covers various types of industrial sensors and opto-electronic devices. Pre-requisite: AET 110 or Consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

**AET 140(4) Course ID:006365**

**Industrial Equipment Maintenance**

Covers maintenance techniques and practices commonly found in a wide variety of industrial settings to include areas such as lubrication, mechanical drives, bearings, and safe working practices. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture Attributes: Technical

**AET 150(4) Course ID:006366**

**Advanced Circuit Analysis**

Introduces the more advanced concepts of DC and AC circuits. Topics include Kirchhoff's Laws, network theorems, Delta-Y conversion, reactive circuits, complex impedances, Z-matching, resonance, and LC tank loading effect. Pre-requisite: AET 110 or Consent of Instructor. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Attributes: Technical

**AET 160(4) Course ID:006367**

**Industrial Controls Electronics**

Introduces the concepts of industrial power control to include solid state devices, controllers, single and multiphase rectification, and DC power supplies. Pre-requisite: AET 110 or Consent of Instructor. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Attributes: Technical

**AET 170(4) Course ID:006368**

**Digital Circuits and Concepts**

Covers the basics of digital electronics to include logic gates, number systems, Boolean algebra, Karnaugh mapping, registers, bistable circuits, and basic arithmetic circuits. Pre-requisite: AET 110 or Consent of instructor. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Attributes: Technical

**AET 180(3) Course ID:006369**

**Industrial Computer Architecture**

Introduces the basic layout of industrial computers as preparatory course leading into the more advanced PLCs; includes binary and hexadecimal number systems, bus oriented computer systems, I/O scan, interfacing considerations, and introduction to programmable controllers. Pre-requisite: AET 110 or Consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical
AET 190(4) Course ID: 006370
Industrial Computer Programming Concepts
Covers programming concepts specifically directed toward industrial programmable devices such as PLCs.
Pre-requisite: Consent of instructor. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 200(4) Course ID: 006371
Integrated Circuits
Focuses on integrated circuits as they apply to linear and non-linear applications to include integration/techniques, operational amplifiers, linear voltage amplifiers, waveform generators, comparators, activelifiers, and interfacing. Pre-requisite: AET 150 or Consent of Instructor. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 210(4) Course ID: 006372
Alternative Energy Independent Studies
Provides the student with the opportunity to put to practical use, by way of a student project, the knowledge and skills gained in AET 102, AET 112, AET 114, and AET 120. Pre-requisite: AET 112 and AET 114 and AET 120.Lecture/Lab: 4.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

AET 220(4) Course ID: 006373
Modulation Techniques and Applications
Introduces the various types of electronic modulation including amplitude, frequency, and phase modulation with emphasis on antenna theory and the study of RF power in both resonant and non-resonant loads. Pre-requisite: AET 200 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 230(3) Course ID: 006374
Introduction to Circuit Design
Utilizes ideas learned in previous electronics courses to design, build, and test circuits based upon design criteria provided by the instructor. Pre-requisite: [AET 170 and AET 200] or Consent of Instructor.Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AET 240(4) Course ID: 006375
Industrial Machinery Control
Examines AC and DC motors and their associated control equipment. Introduces ladder logic and schematic diagram interpretation and drawing. Gives the student practical experience in the design, construction and troubleshooting of industrial motor control circuits. Advances the use of solid state devices and systemintegration. Pre-requisite: AET 110. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
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 260(4) Course ID: 006377
Instructor Consent Required
Robotics and Programmable Controls
Introduces the theory of robots and programmable controls including terminology, components, and basic programming; provides theory of servo and non-servo robots and their controllers. Pre-requisite: Consent of instructor. 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 today. 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

AFS 111(1) Course ID: 005359
Aerospace Studies I
A course designed to provide the student with a basic understanding of the nature and principles of warfare, 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

AFS 112(1) Course ID: 005360
Leadership Laboratory I
A course designed to provide the student with a basic understanding of the contribution to aerospace power of the total U.S. strategic offensive and defensive military posture. The student also develops leadership skills by participating in a military organization, the cadet corps, which offers a wide variety of situations demanding effective leadership. Co-requisite: AFS 111. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

AFS 113(1) Course ID: 005361
Aerospace Studies II
A course designed to provide the student with a basic understanding of the contribution to aerospace power of the total U.S. strategic offensive and defensive military posture. The student also develops leadership skills by participating in a military organization, the cadet corps, which offers a wide variety of situations demanding effective leadership. Co-requisite: AFS 111. Lecture: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Other

AFS 114(1) Course ID: 005362
Leadership Laboratory II
A continuation of AFS 113. A course designed to develop supervisory management skills to includetelecommunications, techniques of critique, social actions, personnel evaluation procedures, problem solving, role playing, and field training preparation. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Co-requisite: AFS 213.
Components: Laboratory
Attributes: Other

AFS 211(1) Course ID: 005222
Aerospace Studies II
Introduces the study of air power from a historical perspective; focuses on the development of air power into a primary element of national security. Leadership experience is continued through active participation in the cadet corps. Pre-requisite: AFS 111, 113 or PAS approval. Lecture: 1.0 credit hour; leadership, laboratory, one hour.
Components: Lecture
Attributes: Technical

AFS 212(1) Course ID: 005223
Leadership Laboratory II
A course designed for development of advanced leadership skills required to be a manager/leader, including leadership studies, public speaking, group dynamics, motivation and preparation for field training. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Co-requisite: AFS 211.
Components: Laboratory
Attributes: Technical

AFS 213(1) Course ID: 005235
Aerospace Studies II
Provides a foundation for understanding how air power has been employed in military and non-military operations to support national objectives. Examines the changing mission of the defense establishment, with particular emphasis on the United States Air Force. Leadership experience is continued through participation in the cadet corps. Lecture, one hour; leadership laboratory, one hour per week. Pre-requisite: AFS 111, 113 or PAS approval.
Components: Lecture
Attributes: Other

AFS 214(1) Course ID: 005236
Leadership Laboratory II
A continuation of AFS 213. A course designed to develop supervisory management skills to includetelecommunications, techniques of critique, social actions, personnel evaluation procedures, problem solving, role playing, and field training preparation. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Co-requisite: AFS 213.
Components: Laboratory
Attributes: Other

AGR 101(3) Course ID: 000750
The Economics of Food and Agriculture
Introduces the field of agricultural economics and some of the basic tools and concepts of decision-making. Illustrates concepts in terms of selected current social and economic issues involving the role of agriculture in both a national and international dimension. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, 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
Includes methods of solving many application problems encountered in agriculture using applied mathematical and logic skills. Emphasizes practical mathematical skills already acquired from secondary education. Teaches application of mathematics to agricultural problems. Special emphasis on the United States Air Force. Leadership experience is continued through active participation in the cadet corps. Pre-requisite: MAT 055 or equivalent placement level. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

AGR 140(3) Course ID: 000021
Issues in Agriculture
Provides an introduction to agriculture and current issues pertaining to the agricultural industry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AGR 150(3) Course ID: 000022
Agricultural Power
Provides an introduction to farm equipment and their power units through classroom instruction that concentrates on specific principles that govern the equipment. Includes a lab that applies the principles learned in the classroom. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 165(3) Course ID: 000023
Agricultural Seminar
Includes reports and discussion of problems in relation to operations of agricultural business. Offered only in summer.
AGR 170(3) Course ID:000024
Introduction to Equipment, Machines, and Engines
Provides an introduction to tractors, combines, balers, forage harvesters and windrowers and various attachments. Includes a study of the operation, adjustments, and repairs. Covers an introduction to engines in which theory and minor repairs will be discussed. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 180(2) 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 students will spend 80 hours of supervised field experience in an approved Agricultural Industry. Pre-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 students will spend 80 hours of supervised field experience in an approved Agricultural Industry. NOTE: Internship III is a variable credit (1-2 credits) 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 all for 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 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 223(3) Course ID:004010
Introduction to Artificial Insemination for Cattle
The primary objective of this course is to instruct students in artificial insemination techniques in cattle. Topics will include reproductive system, herd health, nutrition, semen handling, and estrus detection and synchronization. Pre-requisite: AG 240 or consent of Instructor.
Components: Laboratory, 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 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 offbeef and dairy cattle, sheep, swine, poultry, and horses. Covers management application for livestockproduction, as well as production facilities. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 250(3) Course ID:000033
Introduction to Plants/Crop Production
Familiarizes students with the basic principles and theories involved in field crop production. Provides limited understanding of how crops are grown as a prelude to growing crops successfully. Covers pest and diseases as well as plant disease and production. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, 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 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 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

AGS 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

AGS 125(3) Course ID:015714
Herbaceous Plant Production
Includes the identification, selection, requirements, care, and use of herbaceous plant materials commonly found in food/agronomic production, including the scientific name and common pests. Annuals, perennials, bulbs, and grasses will be discussed. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGS 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 and smart devices. Topics will include computer integrated management of agricultural operations, including livestock/crop, financial management and recordkeeping. Additionally, equipment and farm monitoring technology and their integration with smartphones will be discussed. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGS 155(3) Course ID:015716
Greenhouse Production
Designed to introduce students to the concept of controlled environment growing and plant management. Plant production will be used to demonstrate greenhouse techniques. Identification of diseases, insects, and plant disorders in the greenhouse will also be discussed. Plant and growth medium selection will also be components. An emphasis will be placed on plants for agricultural and food production. Pre-requisite: AGS 135 Herbaceous Plant Production. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AGS 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. A focus is placed on market research, management of your marketing/promotions, handling produce, packaging, distribution, customer relations and sales techniques. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

AGS 205(3) Course ID:015718
Forage Management
Covers the study of the management, production, and utilization of forage grasses and legumes for harvested and grazed production. Subject areas will include: varieties selection, planting, calculating yields, production/consumption, costs, growth management, and harvesting techniques. Management will focus on annual and perennial legume and grass production. This course will emphasize establishment, winter survival, fertilization, cutting management, forage storage, and variety selection. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGS 215(3) Course ID:015719
Weed Management
Examines the nature of crop/weed interactions and explores various weed control methods. Weed identification, biology, ecology and modern management principles are all explored in this course. Pre-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGS 225(3) Course ID:015720
Fruit and Vegetable Production
Provides knowledge required for development of skills in the following areas: commercial vegetable production; variety selection; production methods; growth and development; harvesting; and pest control. Pre-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AGS 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 or Co-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
AGS 245(3) Course ID:015722
Pest Management
Provides a study of agricultural pest control, including insects, diseases, and weeds, of common agriculturally and horticultural crops. Management techniques will also be discussed, including chemical, biological, IPM, and organic methods. Pre-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

AGS 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: AGS 235 Field Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

AGS 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

AGS 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

AGS 285(3) Course ID:015726
Farm Financial Management
Provides an overview of the basic concepts needed to understand commodity futures and option markets. Risk and rewards are discussed, as well as other topics needed to successfully trade in these markets. Pre-requisite: AGR 101 Economics of Food and Agriculture. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

AGS 285(1) Course ID:015727
Agriculture Studies Capstone
Designed to be taken by the Agricultural Studies student in their final semester, as a programmatic review course designed to bridge previous courses together. This course seeks to ensure students are ready to enter the workforce upon graduation as well as pass the capstone exam. Pre-requisite or Co-requisite: Sophomore Standing, Final Semester. Lecture: 1.0 credit (15 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:000837
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: 0.5 credit hours (30 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

AHS 109(4) Course ID:000156
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(2) Course ID:003608
Medical Terminology
A study of anatomical, physiological and pathological terminology with emphasis on work structures and definition of root words, suffixes, and prefixes from Greek and Latin. Additional emphasis is placed on spelling and pronunciation. Primarily designed for individuals preparing for a career in health care. No previous knowledge of Greek or Latin is required. Lecture: 3 hrs.
Components: Lecture Attributes: Technical

AHS 120(1) Course ID:000157
Medical Terminology
Basic medical word techniques emphasizing anatomical, physiological and medical terms. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

AHS 130(2) Course ID:000158
Infection Control
Provides an understanding of the effects of microorganisms on the human body. Includes standard precautions necessary for health maintenance and infection control, focusing on reducing the incidence of disease. Not intended as a general education science course. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

AHS 140(3) Course ID:000520
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:0005479
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 1151(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 Attributes: Technical

AHS Allied Health

AHS 1152(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 1153(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

AHS Allied Health

AHS 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

AHS 101(3) Course ID:016285
Manufacturing Processes and Materials
Covers modern manufacturing processes and materials in the production of contemporary consumer and industrial products with an emphasis on front-line manufacturing production. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

AHS 120(3) Course ID:016286
Introduction to Modern Plastics Manufacturing
Introduces common plastic processing techniques, various plastic materials and practical safety requirements for common processing in a plastics manufacturing facility. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

AHS 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/Lab: 1.5 credits (30 contact hours).
Components: Lecture

AHS 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
AICT 100(4) Course ID:005955
Power Generation and Utilization
Introduces electrical, hydraulic, and pneumatic power systems used in industry. Provides theory and application of hydraulic and pneumatic systems, including DC and AC, basic circuits, safety, and application of hydraulic and pneumatic systems. Pre-requisite: AICT 100 or consent of instructor. Lecture: 4 credits (90 contact hours). Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AICT 110(3) Course ID:005956
Power Distribution Systems
Introduces the use of electrical, hydraulic, and pneumatic power systems in industry. Covers the theory and application of hydraulic and pneumatic systems, including DC and AC, circuit analysis, single-phase and three-phase power systems, basic principles of power distribution, and safety. Pre-requisite: AICT 100 or consent of instructor. Lecture/Lab: 3 credits (67.5 contact hours). Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AICT 1120(3) Course ID:005957
Equipment Installation
Focuses on the installation of electrical, hydraulic, and pneumatic systems. Emphasizes motor installation, wiring, and rigging. Pre-requisite: Reading assessment exam scores above KCTCS development level or successful completion of prescribed developmental courses. Lecture/Lab: 2.0 credits (45 contact hours). Components: Lecture
Attributes: Course Also Offered in Modules

AICT 120(3) Course ID:005958
Measurement and Instrumentation
Covers measurement and instrumentation concepts and applications, choice of proper instrumentation, and calibration. Pre-requisite: MT 120 or higher. Lecture/Lab: 4.0 credits (90 contact hours). Components: Lecture
Attributes: Course Also Offered in Modules

AICT 130(4) Course ID:007384
Industrial Refrigeration - I
Pre-requisite: AIT 1501 or Consent of Instructor. Lecture/Lab: 3.0 credits (45 contact hours). Components: Lecture
Attributes: Technical

AICT 135(3) Course ID:005961
Workplace Safety
Focuses on industry safety practices. Covers personal safety and equipment, workplace recognition, and safety practices. Pre-requisite: AICT 100 or Consent of Instructor. Lecture/Lab: 3 credits (45 contact hours). Components: Lecture
Attributes: Technical

AICT 139(3) Course ID:005962
Process Management and Quality Control
Pre-requisite: AICT 1501 or Consent of Instructor. Lecture/Lab: 3.0 credits (45 contact hours). Components: Lecture
Attributes: Technical

AICT 150(5) Course ID:006574
Application of the National Electrical Code for Residential Wiring
Pre-requisite: AICT 240 or consent of instructor. Lecture/Lab/Practicum: 5.0 credits (165 contact hours). Components: Laboratory, Lecture, Practicum
Attributes: Technical

AICT 240(4) Course ID:005963
Analysis of National Electrical Code Development and Structure
Pre-prequisite: AICT 100 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture
Attributes: Technical

AICT 210(4) Course ID:005964
Advanced Equipment Maintenance
Focuses on maintenance procedures and equipment used with advanced and highly technical industrial machinery, including lubrication, welding, and other techniques. Emphasizes the use of hand tools and precision measuring instruments. Pre-requisite: Reading and Math assessment scores above KCTCS developmental level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours). Components: Lecture, Laboratory
Attributes: Course Also Offered in Modules

AICT 220(3) Course ID:006565
The Integrated Power Grid
Introduces students to types of powerplants that are tied to the electric grid other than fossil powerplants. Provides an overview of nuclear, hydro, and many forms of renewable energy. Includes forms of alternative energy power plants other than solar, wind, and bio-mass power plants. Lecture: 3.0 (45 contact hours) Components: Lecture
Attributes: Course Also Offered in Modules

AICT 230(3) Course ID:006569
Integrated Power Plant Operations
Introduces students to main components found within a fossil power plant. Provides in-depth study of following systems: cooling water system, steam flow system, gas flow system, and power distribution. Provides instruction in the integration of systems within a fossil fuel power plant. Lecture: 3.0 (45 contact hours). Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AICT 250(5) Course ID:006573
Industrial Refrigeration - II
Pre-requisite: AICT 1501 or Consent of Instructor. Lecture/Lab/Practicum: 5.0 credits (165 contact hours). Components: Laboratory, Lecture, Practicum
Attributes: Technical

AICT 270(2) Course ID:006942
Introduction to Robotics and Programmable Logic Controllers
Examines fundamental architecture of programmable logic controllers as it pertains to industrial application and incorporates ladder logic principles, commonly used instruction language, editing, programming, and program execution. Includes the fundamentals of 8-axis robotics including manual manipulation, execution of existing robotic program file, modification of target parameters, and safety interlocks. Pre-requisite: AICT 1501 or Consent of Instructor. Lecture/Lab: 2.0 credits (45 contact hours). Components: Lecture
Attributes: Technical

AICT 290(0.1 - 5) Course ID:005965
Instructor Consent Required
Selected Topics in Advanced Integrated Technology
Incorporates 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

A1T 298(4) Course ID:007386
Advanced Electromechanical Concepts
Investigates advanced concepts in electromechanical engineering. Includes advanced concepts in fluid power, motor controls, instrumentation, and automation controls. Pre-requisite: AIT 100 or consent of the instructor.

Components: Lecture Attributes: Technical

A1T 100(2) Course ID:006150
Basic Electrical Knowledge
Introduces electrical power systems used in industry. Provides introductory theory and application of DC/AC circuits, control transformers, and operation of DC power supplies. 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: Lecture

A1T 100(2) Course ID:006151
Power Development
Introduces electrical power systems used in industrial settings, including basic theory and application of DC generators, alternators, and electric motors. Pre-requisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or completion of AIT1001 or consent of instructor. Lecture/ Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

A1T 100(3) Course ID:006152
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 completion of AIT 100 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

A1T 110(1) Course ID:006153
Electrical Power Distribution
Provides instruction in the use of electrical power as it applies in industry. Includes AC/DC circuit analysis, AC power generation and three-phase distribution systems, and transformers. Pre-requisite: AIT 100 or consent of instructor. Lecture/Lab: 1.0 credits (22.5 contact hours).

Components: Lecture

A1T 110(2) Course ID:006154
Fluid Power Distribution
Provides instruction in the use of hydraulic and pneumatic power as it applies to industry. Includes basic principles of pressure and flow, basic hydraulic/pneumatic circuits including pumps, valves, cylinders, and motors. Pre-requisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or AIT1101 or consent of instructor. Lecture/Lab: 2.0 credit (45 contact hours).

Components: Lecture

A1T 120(1) Course ID:006155
Electrical Installation
Focuses on the installation of electrical industrial systems, including print reading, wiring, box selection, component installation, raceways and conduit, control wiring, and wiring techniques. Pre-requisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 1.0 credit (25 contact hours).

Components: Lecture

A1T 120(2) Course ID:006156
Piping, Pneumatic, & Installation
Focuses on the installation of pneumatic industrial systems, including interpretation of drawings and diagrams, fabrication of pipe and piping fittings, pneumatic supply lines, piping safety, and pipe installation for pneumatic systems. Pre-requisite: AIT 1201 or consent of instructor. Lecture/ Lab: 1.0 credit (25 contact hours).

Components: Lecture

A1T 130(1) Course ID:006157
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: MT 120 or higher OR consent of instructor. Lecture/Lab: 2.0 credit (45.0 contact hours).

Components: Lecture

A1T 130(2) Course ID:006158
Integrated Process Control
Covers measurement and instrumentation concepts and applications and introduces the concept of loop control and the proper calibration of loops. Examines the importance of PID controllers in a control loop. Pre-requisite: MT 120 or higher OR consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture

A1T 140(1) Course ID:006159
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: AIT 100 or AIT 1001 or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture

A1T 140(2) Course ID:006160
Basic Pneumatic Controls
Introduces the student to pneumatic speed control circuits. Uses air pressure regulators and flow controls to obtain cylinder speeds. Pre-requisite: AIT 100 or AIT1003 or consent of the instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

A1T 140(3) Course ID:006161
Basic Hydraulic Controls
Provides instruction in hydraulic and pressure control, including flow control valves, metering circuits, pressure reducing valves, and sequence valves. Pre-requisite: AIT 100 or AIT 1003 or consent of the instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

A1T 150(1) Course ID:006162
Intermediate Electrical Controls
Provides instruction in the integrated application of advanced industrial controls for electrical systems. Emphasizes variable frequency drives, proximity sensors, SCR speed control. Pre-requisite: AIT140 or AIT1401 or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture

A1T 150(2) Course ID:006163
Intermediate Pneumatic Controls
Provides instruction in the integrated application of advanced industrial controls for pneumatic systems. Emphasizes pneumatic logic circuits. Pre-requisite: AIT 140 or AIT 1402 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

A1T 150(3) Course ID:006164
Intermediate Hydraulic Controls
Provides instruction in the integrated application of advanced industrial controls for hydraulic circuits. Emphasizes hydraulic synchronization circuits and multipressure circuits. Pre-requisite: AIT 140 or AIT 1403 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

A1T 190(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 powerplant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

A1T 190(2) Course ID:006563
Air and Gas Flows
Provides instruction in the main components and integration of air and gas flows within a fossil fuel powerplant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

A1T 200(1) Course ID:006165
Power Distribution
Provides instruction in the main components and integration of the power distribution of a fossil fuel powerplant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

A1T 200(2) Course ID:006166
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: Lecture

A1T 210(1) Course ID:006167
Predictive/Preventive Maintenance and Lubrication
Focuses on maintenance techniques and procedures used with advanced and highly technical industrial machinery. Pre-requisite: Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 1.0 credits (22.5 contact hours).

Components: Lecture

A1T 210(2) 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 credits (22.5 contact hours).

Components: Lecture
amts or consent of instructor. Lecture/Lab 1.0 credit (22.5 contact hours).

**Components:** Lecture

**AMT 210(2)**  
Course ID: 006171

**Advanced Mechanical Engineering**

- **Course Description:** Focuses on the application of principles necessary for advanced mechanical engineering.

**Pre-requisite:** Reading and Mathematics assessment scores above KCTCS developmental level or successful completion of prescribed developmental courses or consent of instructor. Lecture: 2.0 credits (45 contact hours).

**Components:** Lecture

**AMT 270(1)**  
Course ID: 006943

**Introduction to PCBs**

- **Course Description:** Introduction to Printed Circuit Boards (PCBs) and their role in modern electronics.

**Attributes:** Technical

**Components:** Lecture

**AMT 270(2)**  
Course ID: 006944

**Introduction to Robotics**

- **Course Description:** Overview of robotics fundamentals and their applications.

**Attributes:** Technical

**Components:** Lecture

**AMS American Military Studies**

**AMS 101(2)**  
Course ID: 009007

**Introduction to the Army**

- **Course Description:** Introduction to the Army's history, mission, and operational capabilities.

**Attributes:** Technical

**Components:** Lecture

**AMS 102(2)**  
Course ID: 007872

**Introduction to Leadership**

- **Course Description:** Leadership principles and strategies for military leaders.

**Attributes:** Technical

**Components:** Lecture

**AMS 211(2)**  
Course ID: 004854

**Advanced Leadership I**

- **Course Description:** Advanced leadership techniques for military officers.

**Attributes:** Technical

**Components:** Lecture

**AMT Aviation Maintenance Technology**

**AMT 100(1)**  
Course ID: 004348

**Mathematics**

- **Course Description:** Instruction in the application of physical principles in the field of aviation.

**Attributes:** Technical

**Components:** Lecture

**AMT 102(1)**  
Course ID: 004350

**Aircraft Weight and Balance**

- **Course Description:** Teaches the principles of aircraft weight and balance.

**Attributes:** Technical

**Components:** Lecture

**AMT 103(1)**  
Course ID: 004351

**Cleaning and Corrosion Control**

- **Course Description:** Introduction to cleaning and corrosion control techniques.

**Attributes:** Technical

**Components:** Lecture

**AMT 104(1)**  
Course ID: 004352

**Basic Electricity**

- **Course Description:** Introduction to basic electrical theory and components.

**Attributes:** Technical

**Components:** Lecture

**AMT 105(1)**  
Course ID: 004353

**Fluid Lines and Fittings**

- **Course Description:** Understanding of fluid mechanics and their applications.

**Attributes:** Technical

**Components:** Lecture

**AMT 106(1)**  
Course ID: 004354

**Aircraft Drawing and Blueprint Reading**

- **Course Description:** Instruction in reading and interpretation of aircraft drawings.

**Attributes:** Technical

**Components:** Lecture

**AMT 107(1)**  
Course ID: 004355

**Physics**

- **Course Description:** Instruction in basic principles of physics as related to aviation maintenance.

**Attributes:** Technical

**Components:** Lecture

**AMT 108(1)**  
Course ID: 004356

**Ground Handling and Servicing**

- **Course Description:** Basic handling and service techniques of the aircraft.

**Attributes:** Technical

**Components:** Lecture
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**AMT 223(1) Aircraft Landing Gear Systems**
Inspect, check, service and repair landing gear, retraction systems, shock struts, bakes, wheels, tires, and steering system. Instruction provided by lecture, demonstration, and practical projects.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (8 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 112. All AMT courses must be achieved with a grade of C or greater.

**AMT 225(2) Aircraft Electrical Systems**
Checking, inspecting, troubleshooting and repair of aircraft electrical system and system components are included. Instruction is provided by lecture, demonstration, and practical projects.
Lecture: 0.5 credits (8 contact hours) Lab: 1.5 credits (75:1 ratio/112 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 112. All AMT courses must be achieved with a grade of C or greater.

**AMT 229(1) Aircraft Fuel Systems**
Checking, inspecting, servicing, repair and troubleshooting fuel systems and components are covered. Types of fuel used in various aircraft. Discussion of the problems associated with fueling and various techniques fueling are included.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (90:1 ratio/45 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 112. All AMT courses must be achieved with a grade of C or greater.

**AMT 231(1) Cabin Atmospheric Control Systems**
Checking, inspecting, servicing, repair, and troubleshooting of the heating, cooling, air conditioning, pressurization, and oxygen systems are included.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 112. All AMT courses must be achieved with a grade of C or greater.

**AMT 239(1) Aircraft Instrument Systems**
Check, inspect and troubleshoot the pilot/static system, floating compass system and the gyro's used for flight instruments. Discussion of the role of mechanics when working with precision instruments is included.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (15:1 ratio/7 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 112. All AMT courses must be achieved with a grade of C or greater.

**AMT 245(1) Engine Inspection**
The operation and inspection of turbine engines is covered.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 112. All AMT courses must be achieved with a grade of C or greater.

**AMT 247(4) Reciprocating Engine Overhaul**
Inspection, checking, servicing and the repair of opposed and radial engines and reciprocating engine installation will be taught by lecture, demonstration, student feedback and participation.
Lecture: 2 credits (30 contact hours) Lab: 2 credits (60:1 ratio/120 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 113. All AMT courses must be achieved with a grade of C or greater.

**AMT 251(1) Engine Fuel System Components**
Operation, inspection and repair of fuel systems and components of aircraft fuel systems, by reading assignments, worksheets, lecture, demonstration and practical projects.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (15:1 ratio/7 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 113. All AMT courses must be achieved with a grade of C or greater.

**AMT 253(1) Engine Fuel Metering Systems**
Operation, inspection and repair of fuel metering systems are taught by reading assignments, worksheets, lecture, demonstration and practical projects.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (75:1 ratio/37 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 113. All AMT courses must be achieved with a grade of C or greater.

**AMT 255(1) Engine Ignition Systems**
Inspection, checking, troubleshooting, servicing and repair of engine ice and rain control systems, heat exchangers, superchargers, carburetor air intake and induction manifolds are taught by reading assignments, worksheets, lecture, demonstration and practical projects.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 113. All AMT courses must be achieved with a grade of C or greater.

**AMT 257(1) Engine Cooling Systems**
Inspection and repair of engine cooling systems components are taught by reading assignments, worksheets, lecture, demonstration and practical projects.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 113. All AMT courses must be achieved with a grade of C or greater.

**AMT 259(1) Engine Exhaust Systems**
Inspection and repair of engine exhaust systems components are taught by reading assignments, worksheets, lecture, demonstration and practical projects.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (15:1 ratio/7 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 113. All AMT courses must be achieved with a grade of C or greater.

**AMT 261(1) Engine Instrument Systems**
Troubleshooting, servicing and repair of fluid rate of flow indicating systems and repair of engine instrumentation, temperature, pressure, and t.p.m. indicating systems are taught by reading assignments, worksheets, lecture, demonstration and practical projects.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (15:1 ratio/7 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 113. All AMT courses must be achieved with a grade of C or greater.

**AMT 263(1) Fire Protection Systems**
Inspecting, checking, servicing, troubleshooting, and repair of engine fire detection and extinguishing systems are taught by reading assignments, worksheets, lecture, demonstration and practical projects.
Lecture: 1 credit (15 contact hours) Lab: 1 credit (60:1 ratio/60 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 113. All AMT courses must be achieved with a grade of C or greater.

**AMT 265(2) Engine Electrical Systems**
Repair of engine electrical system components, and to install, check, and service engine electrical wiring controls, switches, indicators, and protective devices by lecture, reading assignments, demonstration and practical projects.
Lecture: 1 credit (15 contact hours) Lab: 1 credit (60:1 ratio/60 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 113. All AMT courses must be achieved with a grade of C or greater.
system components. Inspection, checking, serving, and repair of fixed-pitch, constant-speed, and feathering/propellers and propeller governing systems is also included. Installation, troubleshooting and the removal of propellers is covered. This class is taught by lecture, reading assignments, worksheets, demonstration and practical projects. Lecture: 0.5 credits (7 contact hours) Lab: 0.5 credits (120:1 ratio/60 contact hours) Prerequisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.

Components: Lecture
Attributes: Technical

ANT 209(3) Course ID:004701
Principles of Human Anatomy
The structure of the human body will be examined at various levels: cellular, tissue and organ systems. The gross anatomical arrangement of the body will be studied in a system-by-system format relating structure to function and the fundamentals of human embryology/malformation with adult anatomy. The central nervous system will be emphasized. Pre-requisite: Introductory biology or zoology. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

ANT Anthropology

ANT 101(3) Course ID:004855
Introduction to Anthropology
Introduces the student to the study of human cultures, past and present. Offers a comprehensive introduction to anthropology, emphasizing the concepts and methods of the major sub-fields i.e., cultural, biological, archaeology, and linguistics. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior 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 towardstereotypes and ethnocentrism, and understanding the distinctions between 'race', ethnicity and racism. Features extended descriptions of the cultural dynamics of the culture(s) with which the instructor has worked. Directed at non-majors.

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

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.

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. Considers the status of Native Americans in present-day North America. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ORTH 223(3) Course ID:007065
Culture Change and Globalization
Introduces the historical development of anthropology, its role in colonialism and globalization, and types of cultural change processes. Includes discussions of how human societies have struggled for political andendaecide identity in a post-colonial world and for cultural survival and self-determination. Pre-requisite: ACT, COMPASS, or ASSET scores for degree level reading completion or completion of developmental reading courses. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

ORTH 235(3) Course ID:002205
Food and Culture
Examines the way values and behaviors related to food production and consumption are shaped by the physical and cultural environment. Draws data from non-Western and Western cultures. Discusses implications of cultural factors for contemporary issues in nutrition. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of developmental reading courses. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

ORTH 240(3) Course ID:002206
Introduction to Archaeology
Introduces the theories, techniques, and strategies used by archaeologists to recover and interpret information about past cultures. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science, Other

ORTH 241(3) Course ID:000045
Origins of Old World Civilization
Surveys cultural developments in the Old World from the earliest times to the beginning stages of civilization. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

ORTH 242(3) Course ID:000046
Origins of New World Civilization
Surveys the origin and growth of prehistoric Native American cultures as revealed by archaeological data. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

APS Apprenticeship Studies

APS 201(20 - 40) Course ID:000048
Apprenticeship Studies
Complements specialized study in a national or state approved apprentice curriculum (i.e. 2000 hours per year 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 credits (144 contact hours).

Components: Lecture
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 and process operations. Covers the fundamental areas of physics, chemistry, and mathematics necassary to understand their complex relationship in industry. Includes topics on fluid behavior, fluid flow, control piping and valves, and the laws of nature and heat. Pre-requisite: Test at MAT 126 eligible or MAT 065 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 MAT 126 eligible or MAT 065 Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (120 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

APT 108(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 MAT 126 eligible or MAT 065 Consent of Instructor. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

APT 108(2) Course ID:004539
Stationary Equipment
Presents fundamental knowledge in the operation and troubleshooting of stationary equipment. Provides a solid foundation on which to build sound maintenance and operations programs. Covers common equipment designs, operating instructions, troubleshooting aids to help identify malfunctions, guides to handling emergencysituations and routine scheduled maintenance tasks. Includes topics on heat exchangers, heat transfer, coolers, and refrigeration. Pre-requisite: Test at MAT 126 eligible or MAT 065 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 controlstrategies as applied to unit operations, industrial chemical operations, and operating tactics andstrategies. Provides basic instruction in process control instrumentation as it relates to the manufacturingoperations and will promote smoother, more efficient control of automated systems. Pre-requisite: APT 108 with grade of "C" or greater OR Instructor Consent. Lecture/Lab: 4.0 credits (105 contact hours).

Components: Lecture
Attributes: Technical

APT 144(4) Course ID:004542
Process Operations
Develops an understanding of modern processing techniques, practical examples of normal and abnormal operating situations, and advanced training in enhancing productivity while cutting operating costs. Provides maintenancepersonnel and technicians an understanding of the overall process and their roles in maintaining efficientproduction rates. Involves work on real life simulators to ensure 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 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
AP 146(2) Course ID:004543
Process Applications
Develops an understanding of how to control and operate processes. Involves work on real life simulators to illustrate 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: Lecture
Attributes: Technical

AP 148(2) Course ID:004544
Process Operation Safety
Develops an understanding of how to safely start up, shutdown, control and operate industrial processes. Includes safe operating tactics and strategies, and procedures as they apply to unit operations and industrial chemical operations. 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

AP 154(8) 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 integrated 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

AP 156(2) Course ID:005337
Power Plant Protection
Develops an understanding of how to safely start-up, shutdown, control and operate a power generation unit. Includes safe operating tactics, strategies, and procedures as they apply to unit operations and various safety and protection equipment integrated into unit operations. 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, Kilowatt-Hour (KWH) meter reading, installation of overhead service, voltage testing, operation of bucket truck, splicing and other knowledge and skills typically required of intermediate-level apprentices. Pre-requisite: APT 159, EET 150, EET 151. Co-requisite: APT 259. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AP 158(2) Course ID:005510
Lineman Technology I
Trains the student in the use of and/or assembly of materials, tools, and equipment common to the electricity 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: Lecture
Attributes: Technical

AP 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

AP 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: HAZMAT, HAZWOPER Operations level, personal protective equipment, working at elevated heights, respirators, SCBAs, and specific hazardous materials. Pre-requisite: Consent of Instructor.
Components: Lecture/Lab: 3.0 credits (90 contact hours).
Attributes: Technical

AP 204(1) Course ID:004546
Safety Skills Training
Course ID 004546
Presents a fundamental knowledge of OSHA, EPA and DOT regulations as concerned with hazardous waste generators. This fundamental knowledge is necessary for process operations to qualify for hazardous response to incidents. The student will be trained in the required skills to qualify them for HAZWOPER Operations level response. The course studies include, but are not limited to: Hazcom, Hazwoper Operations level, personal protective equipment, working at elevated heights, respirators, SCBAs, and specific hazardous materials. (This course will be presented in a semester format.) 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

AP 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 (30 contact hours).
Components: Lecture
Attributes: Technical

AP 258(2) 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, Kilowatt-Hour (KWH) meter reading, installation of overhead service, voltage testing, operation of bucket truck, splicing and other knowledge and skills typically required of intermediate-level apprentices. Pre-requisite: APT 158, APT 159, EET 150, EET 151. Co-requisite: APT 259. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AP 259(4) Course ID:005513
Lineman Technology II 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 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 104(3) Course ID:004346
Introduction to African Art
Covers the required skills to qualify 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.
Components: Lecture
Attributes: Technical

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: Consent of Instructor. Co-Op: 1-6 credits (75-450 contact hours).
Components: Co-Op
Attributes: Technical

ART 106(3) Course ID:000049
Introduction to Art
Provides a basic overview of the study, language, history and cultural relevance of visual art and is designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory studio experiences.
Components: Lecture
Attributes: AH - Arts and Humanities

ART 107(3) Course ID:000056
Introduction to African Art
Examines the arts of Africa, including sculpture, painting, pottery, textiles, architecture, altar arts, humanadornment and performance art, on the basis of style, iconography, and function, and in relation to religious, political, market and daily activities. Explores the ways in which Africa has been conceived and reconstructed the assumptions shaping each approach. Addresses the processes and problems of collecting and displaying African art through the course.
Components: Lecture
Attributes: AH - Arts and Humanities

ART 108(3) Course ID:000063
Renaissance Through Modern Art History
Surveys the historical development of Western art and architecture from the 14th Century through the present. Pre-requisite: Consent of Instructor. Co-Op: 1-6 credits (75-450 contact hours).
Components: Co-Op
Attributes: AH - Arts and Humanities

ART 203(3) Course ID:000086
Developmental Writing
Provides an overview of the study, language, history and cultural relevance of visual art and is designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory studio experiences.
Components: Lecture
Attributes: AH - Arts and Humanities
ART 108(3) Course ID:007380
Introduction to World Art
Provides a basic overview of the study, language, history, and relevance of the visual art from world cultures and designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory visual experiences. Pre-requisite: RDG 185, ENC 091. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ART 110(3) Course ID:004110
Drawing I
Introduction to basic drawing skills and concepts. Projects in line, value, space and composition are among the topics that will be explored in a variety of media. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 112(3) Course ID:004111
2-Dimensional Design
Investigates design principles of balance, unity, 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 121(3) Course ID:004015
School Art
Introduction to art and to the teaching of art in the lower (1-3) elementary grades.
Components: Laboratory, Lecture

ART 201(3) Course ID:000621
Ancient Art History
Examines the art and architecture of the ancient Mediterranean, focusing on one or more of the cultures of Greece, Rome, Egypt, and the Near East. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 202(3) Course ID:000457
Medieval Art History
Examines the architecture, sculpture, painting, and related arts from the rise of Christianity to the beginnings of the Renaissance. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 203(3) Course ID:000186
Renaissance Art History
Examines the art in Europe from the 14th to 18th centuries, with emphasis on the major styles, artists, and developments from the early Renaissance through the age of the Baroque. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

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, graphics, photography, and performance art from the early settlements of the United States to the present. Pre-requisite: Consent of Instructor.
Components: Lecture
Attributes: AH - Arts and Humanities

ART 208(3) Course ID:0000017
Introduction to Art Education
Investigates the theoretical, historical, psychological, and sociological foundations of art education in 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 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:004114
Drawing II
Advanced studio investigation of drawing techniques and concepts. Projects in line, value, composition and space will be investigated through individual development of style and expression, with extensive use of figure models. 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 and at home with human models. 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 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 metals smithing techniques such as sawing, filing, piercing, forging, forming, soldering, and finishing. Emphasizes demonstrations and hands-on work to present the concepts of metal manipulation. Provides an introduction to historical and contemporary metal work. Lecture/Lab: 3.0 credit hours (90 contact hours).
Components: Lecture
Attributes: Other

ART 232(3) Course ID:000706
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 related to raising, enameling, forging, casting, and more advanced scupltural processes. Includes discussion and critique of selected projects. Pre-requisite: ART 231 or Consent of Instructor. Lecture/Lab: 3.0 credit hours (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, along with a brief overview of ceramic history, aesthetics and studio safety. 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:0016141
Graphic Communication I
Provides an introduction to graphic design principles and methods and techniques used in corporate 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:0016142
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 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 253(3) Course ID:0016143
Graphic Communication II
Expands proficiency in all aspects of the design process by continuing the development of graphic design principles, methods, and techniques introduced in Graphic Communication I. Incorporates industry-standard page layout, illustration, and image editing software. Includes discussion and critique as integral parts of the coursework. Pre-requisite: ART 251 OR consent of instructor. Lecture/Lab: 3.0 credit hours (90 contact hours).
Components: Lecture
Attributes: Other

ART 254(3) Course ID:0016144
Design Process and Presentation
Continues investigation of design principles, process, vocabulary, methods, and presentation. Transitions from theoretical to applied problems with a focus on portfolio preparation and professionalism. Incommunication. Pre-requisite: ART 251 OR consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other
ART 250(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, ART 130. 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 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 art 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. Prerequisite: ART 270 or permission of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture

ART 280(3) Course ID:006210
Beginning Film Photography
Introduces black and white film photographic processes including the use of a camera and the darkroom. Stresses technical and compositional aspects of photography as an art medium. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
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 AdobePhotoshop as a "digital darkroom." 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, Lecture

ART 297(1 - 3) Course ID:006214
Instructor Consent Required
Directed Studies in Art: (Topic)
Provides an opportunity to cover topics outside the normal range of studio classes or further investigation of topics and techniques covered in studio classes. Pre-requisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory
Attributes: Other

ART 298(3) Course ID:006215
Introduction to Art History
Introduces students to the developments in art from the prehistoric through contemporary eras. Pre-requisite: 1001. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ASC Animal Sciences

ASC 106(3) Course ID:000056
Agricultural Animal Science
Relationships of food production and consumption to income of humans throughout the world; major livestock (beef and dairy cattle, sheep, swine, poultry, and horses) production areas of the world; relationships between animal welfare, food production, and the future of life on Earth and in space from a multidisciplinary perspective. Credit not available for both BIO 155 and ASC 155. Pre-requisite: MATH 105 or MATH 110 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).
Components: Lecture Equivalents: BIO 155
Attributes: SN - Science

AST Astronomy

AST 155(3) Course ID:006341
Astrobiology
Examines topics related to the origins of planets, the requirements for life, the search for life away from Earth, the societal implications of discovering other forms of life, and the future of life on Earth and in space from a multidisciplinary perspective. Credit not available for both BIO 155 and ASC 155. Pre-requisite: MATH 105 or MATH 110 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).
Components: Lecture Equivalents: BIO 155
Attributes: SN - Science

AST 191(3) Course ID:000060
The Solar System
Focuses on 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:000055
Stars, Galaxies and the Universe
Examines the Sun and the universe outside the Solar System. Has a principal theme of the origin of the Sun and the universe at large. Includes topics of black holes, quasars, and the big bang model of the universe. Pre-requisite: MATH 105 or MATH 110 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

AST 195(1) Course ID:000064
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: AST 101 or AST 191 or AST 192; MATH 105 or two years of high school algebra, or consent of the instructor. Lab: 1.0 (15 Contact Hours).
Components: Laboratory
Attributes: SL - Science Laboratory

AST 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.
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University)

AST 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.
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University)
Course Descriptions

ATE 100(1) Course ID:007113
Aviation Math
Covers mathematics related to the aerodynamic and physical forces acting on an aircraft in flight. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 1.0 credit (40.5 contact hours).
Components: Lecture
Attributes: Technical

ATE 102(3) Course ID:007114
Introduction to Aircraft Maintenance I
Teaches knowledge and skills necessary in measuring, calculating, and documenting aircraft weight and balance. Provides instruction in the identification, cause, prevention, removal and treatment of corrosion. Includes interior and exterior cleaning of the aircraft. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 104(3) Course ID:007115
Introduction to Aircraft Maintenance II
Provides instruction 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

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 finishings 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(5) 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 airplane; and the rigging of primary, secondary and auxiliary control surfaces. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 208(3) Course ID:007121
Aircraft Structures IV
Provides instruction in the repair of wood structures, the inspection, testing, repair, selection, and installation of aircraft fabric covering; and the identification, application; and inspection of aircraft finishing materials. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 222(3) Course ID:007122
Aircraft Systems I
Covers the repair of hydraulic and pneumatic power systems components. Includes the inspection, check, service, and repair of landing gear, retraction systems, shock struts, brakes, wheels, tires, and steering systems. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 224(3) Course ID:007123
Aircraft Systems II
Covers checking, inspecting, troubleshooting and repair of aircraft electrical system and system components. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 226(3) Course ID:007124
Aircraft Systems III
Covers checking, inspection, servicing, repair and troubleshooting of fuel systems and components, heating, cooling, air conditioning, pressurization, and oxygen systems; and rain and ice control and removal systems. Includes types of fuels used in various aircraft and a discussion of the problems associated with fueling and various techniques in fueling. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 228(3) Course ID:007125
Aircraft Systems IV
Includes discussion, inspection, and troubleshooting of navigational and communication systems, fire detection and extinguishing systems. Covers the inspection, troubleshooting, and repair of heading, speed, altitude, time, altitude, temperature, pressure and position indicating systems and installation of instruments. Provides the student with the inspection, checking and servicing of speed and take-off warning systems, electrical brake controls, artificial 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
Airpower I
Covers the 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
AUT 258(3) Course ID:007133
Aircraft Powerplant Systems IV
Covers the operation, inspection and repair of fuel systems and components of aircraft fuel systems and fuel metering systems. Includes the inspection and repair of engine cooling system components, engine exhaust system components, and engine fire detection and extinguishing systems. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture, Lab
Attributes: Technical

AUT 292(3) Course ID:006783
Introduction To Aviation Electronics
Provides instruction in basic to intermediate electronics and specifically how they relate to aviation maintenance technology. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Pilot Course, Technical

AUT 293(3) Course ID:006784
GROL+Radar Exam Prep
Provides instruction and preparation for the FCC General Radio Operators License and Radar endorsement exams. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Pilot Course, Technical

ATE 299(1 - 6) Course ID:004550
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 Automotive Technology

AUT 110(3) Course ID:001050
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:001051
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:001052
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 (differential, clutch, u-joints, rear wheel drive and 4-wheel drive) Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 131(2) Course ID:001053
Manual Drive Train and Axles Lab
Develops skills in the diagnosis and repair of manual transmissions and related drive train components (differential, clutch, 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:001054
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:001055
Basic Fuel and Ignition Systems Lab
Provides skills necessary to diagnose and repair the automotive basic ignition, fuel, and emission system 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(2) Course ID:001056
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 160(3) Course ID:001058
Suspension and Steering
Presents the automotive suspension system, the diagnosing of suspension problems, identifying components, recognizing tire wear problems, wheel balancing and the use of alignment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 161(2) Course ID:001059
Suspension and Steering Lab
Introduces skills necessary in the diagnosis and repair of automotive suspension systems, wheel alignment, and wheel balancing. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 160. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 180(3) Course ID:001060
Automatic Transmission/Transaxle
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 181(2) Course ID:001061
Automatic Transmission/Transaxle Lab
Develops diagnostic and repair skills related to the operation of rear and front wheel automatic transmissions and transaxles. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 180. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 198(1) Course ID:001062
Instructor Consent Required
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.
Components: Practicum
Attributes: Technical

AUT 199(1) Course ID:001063
Instructor Consent Required
Cooperative Education Program
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.
Components: Co-Op
Attributes: Technical

AUT 240(3) Course ID:001064
Computer Control Systems and Diagnosis
Presents the comprehensive diagnostics of on-board computer control systems, including distributorless ignition systems. Presents the problem solving process including flowchart reading. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
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.
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.
Components: Laboratory
Attributes: Technical
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 the classroom setting. Pre-requisite: Permission of Instructor. Components: Laboratory Attributes: Technical

BAM 110(3) Course ID:001074
BAM 120(3) Course ID:001078
BAM 140(3) Course ID:001078

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 critically and creatively solve realistic business problems through use of available data analysis tools. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture: 3 credits (45 contact hours).

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 55 or higher-level math or consent of Instructor. Lecture: 3.0 credits (45 contact hours).

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 courses in English or Consent of Instructor. Lecture: 3 credits (45 contact hours).

BAS 126(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. Leans 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).

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 thesis selling steps including—prospecting, qualifying, presenting, answering objections, closing, and after-sale service. Lecture: 3.0 credits (45 contact hours).

BAS 160(3) Course ID:000101
Introduction to Business
Introduces business careers, terminology, and the interrelationships of business topics. Presents the complexity of business and the impact on communities and their economies. Lecture: 3.0 credits (45 contact hours).

BAS 170(3) Course ID:005244
Entrepreneurship
Examines topics such as product development, finance, and business plan preparation and their impact on entrepreneurship. Small business management. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

BAS 200(3) Course ID:000104
Small Business Management
Introduces the facets of establishing and operating a small business, including legal forms of business organization, finance, accounting, insurance, governmental regulations and assistance, economics, marketing, and management principles. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

BAS 200A(1) Course ID:016967
Small Business Management
Examines essential information regarding business and consumer laws for the small business, as well as identifies essential information to finance a small business. Pre-requisites: BAS 160 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

BAS 200B(1.5) Course ID:016968
Small Business Management
Examines the essential information to prepare and maintain a small business plan. Examines essential information regarding accounting and financial records for a small business and marketing for a small business. Pre-requisites: BAS 200A or Consent of Instructor. Lecture: 1.5 credits (22.5 contact hours).

BAS 212(3) Course ID:000105
Introduction to Financial Management
Introduces the basic concepts of managing financial resources and techniques of financial analysis used by practical business decisions. Demonstrates use of financial ratios to evaluate the past performance of the firm, financial planning techniques, the effect of leverage on profitability and risk, the time value of money, and contemporary approaches to working capital management and capital budgeting. Computes financial ratios, constructs pro forma financial statements, conducts break-even analysis, and computes present and future values of funds. Pre-requisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

BAS 250(1) Course ID:000106
Business Employability Seminar
Creates an error-free portfolio of business employment documents, using computer technology to assist with composition, proofreading, and formatting. Demonstrates proper interviewing skills through mock interviews.

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 the classroom setting. Pre-requisite: Permission of Instructor. 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 students educational objectives. Students who participate in the practicum do not receive compensation. Pre-requisite: Permission of the Instructor. Components: Practicum Attributes: Technical

AUT 299(1) Course ID:001070
Instructor Consent Required
Cooperative 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. Pre-requisite: Permission of the Instructor. Components: Co-Op Attributes: Technical

AVN 112(4) Course ID:016448
Private Pilot Helicopter: Flight I
Provides first twenty-five dual and/or solo flight hours leading to FAA private pilot rotary wing certification using FAA approved flight training syllabus (Lab). A review of elementary flight operations including basic aircraft control, elementary radio navigation, air traffic control procedures, cross-country operations, and solo flight. Associated ground instruction includes a review of knowledge areas required for completion of the Private Pilot Certificate with helicopter rating. At the successful completion of this course the student will have gained the aeronautical knowledge and experience necessary to advance to Private Pilot-Rotary: Flight I. Pre-requisite or Co-requisite: AVN 111 with C or better. Lecture/Lab: 4.0 credits (105 contact hours).

Components: Lecture Attributes: Technical

AVN 113(3) Course ID:016447
Ground School Rotary Wing
Provides aeronautical knowledge necessary to prepare student pilots to successfully complete Federal Aviation Administration (FAA) Private Pilot written examination. Course completion standards require that the students successfully complete the Private Pilot Helicopter FAA written examination. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

AVN 117(3) Course ID:001072
Residential Maintenance Carpenter
This course covers the basic aspects of framing, roofing, window, door, and stair maintenance. The student will receive training in the proper use of ladders and in the handling and storage of building materials. Pre-requisite: BAS 100.

Components: Lecture Attributes: Technical

AVN Aviation

BAS Business Administration System

AVN 220(3) Course ID:000100
Small Business Management
Identifies the essential information to prepare and maintain a small business plan. Examines essential information regarding accounting and financial records for a small business and marketing for a small business. Pre-requisites: BAS 200A or Consent of Instructor. Lecture: 1.5 credits (22.5 contact hours).

Components: Lecture

BAS 200B(1.5) Course ID:016968
Small Business Management
Identifies the essential information to prepare and maintain a small business plan. Examines essential information regarding accounting and financial records for a small business and marketing for a small business. Pre-requisites: BAS 200A or Consent of Instructor. Lecture: 1.5 credits (22.5 contact hours).

Components: Lecture

BAS 212(3) Course ID:000105
Introduction to Financial Management
Introduces the basic concepts of managing financial resources and techniques of financial analysis used by practical business decisions. Demonstrates use of financial ratios to evaluate the past performance of the firm, financial planning techniques, the effect of leverage on profitability and risk, the time value of money, and contemporary approaches to working capital management and capital budgeting. Computes financial ratios, constructs pro forma financial statements, conducts break-even analysis, and computes present and future values of funds. Pre-requisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

BAS 250(1) Course ID:000106
Business Employability Seminar
Creates an error-free portfolio of business employment documents, using computer technology to assist with composition, proofreading, and formatting. Demonstrates proper interviewing skills through mock interviews.
<table>
<thead>
<tr>
<th>Course ID</th>
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<td>BAS 291(3)</td>
<td>Retail Management</td>
<td>Course ID: 0000116</td>
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<td>3.0</td>
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</table>
of selling in our market-oriented economy. Incorporates and considers the legal and ethical aspects of personal selling. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

BAS 1552(1)  Course ID:016640  Successful Selling and Other Special Selling Topics  Demonstrates important relationship building strategies. Research and describe the product, the producer, the competition and consumer buying behavior. Pre-requisite: BAS 1551. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

BAS 1553(1)  Course ID:016641  Dynamics of Selling  Covers and applies the basics in the selling process. Pre-requisite: BAS 1552. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

BAS 1601(0.6)  Course ID:005145  The Foundations of Business  Examines federal, state and local tax requirements for a small business. Pre-requisite: BAS 1704 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1602(0.6)  Course ID:005146  Business Ownership, Money, and Quality  Examines the essential components of business on a national and global scale. Lecture: 0.8 credits (9 contact hours).

Components: Lecture

BAS 1603(0.6)  Course ID:005147  Introduction to Management  Identifies management functions and proper management techniques. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 1604(0.6)  Course ID:005148  Introduction to Marketing  Examines business ownership, monetary systems, and quality principles. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 1701(0.5)  Course ID:005245  Product Development  Examine essential information regarding the product development process for a small business. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1702(0.5)  Course ID:005246  Entrepreneurial Finance  Examines current and essential strategies for financing small businesses. Pre-requisite: BAS 1701 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1703(0.5)  Course ID:005252  Preparing the Business Plan  Identifies information to develop a small business. Pre-requisite: BAS 1702 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1704(0.5)  Course ID:005247  Small Business Tax  Examines federal, state and local tax requirements for a small business. Pre-requisite: BAS 1703 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1705(0.5)  Course ID:005248  The Small Business Law Environment  Examines business and consumer laws for the small business. Pre-requisite: BAS 1704 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 1706(0.5)  Course ID:006221  Current Small Business Managerial Issues  Introduces students to tort and criminal law, liability, and consumer awareness and protection. Pre-requisite: BAS 2671. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2121(1)  Course ID:006106  Financial Statement Analysis  Examines the importance and impact of the economic, cultural, and political environment on global businesses and managerial processes. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2123(1)  Course ID:006107  Breach of Contract  Examines the time value of money to compute present and future values of funds in the budgeting and managing of working capital. Pre-requisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2562(1)  Course ID:015765  Global Trade & Foreign Investment  Examines the global trading system, its importance, and the impact of economic, cultural, and political environment on trade and foreign direct investment. Pre-requisite: BAS 2561 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2563(1)  Course ID:015766  Global Marketing  Examines global marketing and product development strategies and how political, economic, and cultural differences impact them. Pre-requisite: BAS 2562 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2564(1)  Course ID:005814  Foundation Principles of Business Law  Examines the foundation principles of business law and considers the legal and ethical aspects of personal selling. Pre-requisite: BAS 160 and BAS 1553. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2742(0.6)  Course ID:005153  Compensating Employees  Examines the importance and impact of the economic, cultural, and political environment on trade and foreign direct investment. Pre-requisite: BAS 2561 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2743(0.6)  Course ID:005152  Developing and Evaluating Employees  Examines current and essential strategies for financing small businesses. Pre-requisite: BAS 1701 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 2744(0.6)  Course ID:005151  Bringing Employees Into the Organization  Examines current and essential strategies for financing small businesses. Pre-requisite: BAS 1701 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 2745(0.6)  Course ID:005154  Employee Relations  Examines current and essential strategies for financing small businesses. Pre-requisite: BAS 1701 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

BAS 2821(0.5)  Course ID:005288  Introduction to Entrepreneurial Marketing  Introduces small business marketing. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2822(0.5)  Course ID:005289  Environmental Market Strategy Planning  Examines essential information for an environmental and SWOT analysis in developing marketing objectives for a small business marketing plan. Pre-requisite: BAS 2821 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2823(0.5)  Course ID:005290  Product and Market Strategies  Examines essential information to develop product and marketing strategies for the small business marketing plan. Pre-requisite: BAS 2822 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2824(0.5)  Course ID:005291  Market Distribution and Promotion  Identifies information to develop small business distribution and promotion strategies. Pre-requisite: BAS 2822 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture
Demonstrates importance of delegation and effective use of coaching or mentoring to develop employees. Pre-requisite: BAS 2842. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2844(0.6) Course ID:005828
Communication and Teamwork
Applies communication techniques that allow for effective conflict resolution and encourages strong group outcomes. Pre-requisite: BAS 2843. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

BAS 2845(0.6) Course ID:005829
Effective Meetings and Quality Processes
Examines effective techniques for conducting meetings and applying theories of quality management. Pre-requisite: BAS 2844. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

BAS 2871(0.6) Course ID:005155
The Role of the Team Leader
Identifies the new responsibilities of the team leader with emphasis on competencies, planning, and controlling the work environment. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2872(0.6) Course ID:005156
Organizing and Developing Your Team
Recognizes the fundamentals of organizing a work environment, appraisal performance, acquiring training, and developing team members. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2873(0.6) Course ID:005157
The Leadership Reins
Examines the attributes of motivation and communication in a variety of leadership styles appropriate for different managerial environments. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2874(0.6) Course ID:005158
Managing the Team Through Conflict and Change
Examines guiding workgroups through constantly changing and challenging work environments in order to achieve organizational priorities. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2875(0.6) Course ID:005159
Decision Making and Problem Solving in a Quality Culture
Identifies principles of effective decision making and problem solving with emphasis on enhancing quality workplace cultures. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2881(0.6) Course ID:005160
Become a Great Leader
Examines leadership philosophies, values, characteristics, and the specific role the leader plays in directing the strategic planning process. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2882(0.6) Course ID:005161
Self Management: Time, Stress, & Effective Change Techniques
Identifies management techniques and skills that provide leaders with the capabilities to maximize both personal and organizational effectiveness. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2883(0.6) Course ID:005162
Effective Delegation and Empowerment
Identifies strategies of delegation and empowerment that facilitate high levels of organizational effectiveness. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2884(0.6) Course ID:005163
Communicating for Interdependence
Identifies the use of effective communication techniques that increase interdependence in workgroups. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2885(0.6) Course ID:005164
Teamwork and Synergy
Emphasizes the power of synergy and the implementation of effective team environments. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

BAS 2891(0.75) Course ID:015767
Operations & Productivity
Introduces basic operations management concepts including productivity and global operations management challenges. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).

Components: Lecture

BAS 2892(0.75) Course ID:015768
Product Design & Quality
Introduces the concepts of quality management and product/process design, including total quality management, just-in-time, facility layout, and the product life cycle. Pre-requisite: BAS 2891 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).

Components: Lecture

BAS 2893(0.75) Course ID:015769
Planning and Scheduling
Examines the importance of planning to organizational success with regards to inventory levels and scheduling. Pre-requisite: BAS 2892 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).

Components: Lecture

BAS 2894(0.75) Course ID:015770
Lean Operations & Supply Chain
Demonstrates the use of lean operations techniques, effective project management processes, and the elementsof supply chain management to improve efficiency and effectiveness. Pre-requisite: BAS 2893 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2901(1) Course ID:006103
Moral Philosophy and Business
Examines the nature of morality and the ethical philosophy and nature of business leadership and decisionmaking. Pre-requisite: BAS 283 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2902(1) Course ID:006104
American Business
Examines the nature of capitalism, the social-government relationship, including the businessleadership-government-society relationship. Recognizes the importance of decision making, social cost, corporate responsibility, governance, and the role of government in business. Pre-requisite: BAS 2901 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2903(1) Course ID:006105
The Organization and Its People
Examines the business leadership-government-society relationship, including the challenges and issues today’s workplace environment with an emphasis on moral choices faced by employees. Pre-requisite: BAS 2902 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 2911(1) Course ID:016642
Introduction to Retailing
Explains the historical aspects of retail development and the impact mass merchandisers have on the retailing environment. Examines current trends and influences on retailing. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

BAS 2912(1) Course ID:016643
Retailing Strategies and Store Management
Examines retail structure, store control, and decision making. Examines retail structure, store control, and decision making.
making. Identifies fundamental principles of store organization. Explains the social, legal and ethical responsibilities involved in retailing. Pre-requisite: BAS 2911. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

BAS 2912(1) Course ID:016645
Merchandise Management

Demonstrates how to use appropriate merchandising and promotional tools. Identifies and explains the demographic and psychographic characteristics of the target market as well as the opportunities and risks in conducting business with foreign markets. Pre-requisite: BAS 2912. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

BBT 100(3) Course ID:016692
Introduction to HFC/Cable-TV

Introduces the basics of the HFC (Hybrid Fiber Coaxial) portion of the broadband industry. Focuses on primary areas: cable and wire - the design of the cables physically and electrically and how to splice them; printreading - construction drawings and system maps/circuit diagrams; station installation - installation of customer materials and equipment and teaching the customers how to properly use the equipment; basic troubleshooting - finding and repairing trouble in materials and equipment; processing requirements for various signals used in the HFC system and signal level meters and signal testing. Covers the transmission of voice and data signals and how they are transmitted to the subscriber and back to the central office. Includes troubleshooting and fault locating techniques used to repair and maintain subscriber equipment. Pre-requisite: MAT 065 or Equivalent Placement Level or Consent of Instructor. Lecture/Lab: 3.0 credits (75 contact hours).

Components: Lecture Attributes: Technical

BBT 200(2) Course ID:016694
Introduction to Cellular Technology

Introduces the world of wireless communications. Provides information to enhance an understanding of how we use radio frequencies to transmit signals, data, and voice over the airwaves. 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 is designed for 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; learn to troubleshoot an electric motor and coil. Co-requisite: BEX 101.

Components: Lecture Attributes: Technical

BEX 101(2) Course ID:001119
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.

Components: Laboratory Attributes: Technical

BIO 112(3) Course ID:000127
Introduction to Biology

Basic study of structure, function and interactions of living organisms including cell theory, genetics, energetics, evolution and ecology. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: SN - Science, Course Also Offered in Modules

BIO 113(1) Course ID:000133
Introduction to Biology Lab

Emphasizes basic laboratory studies of structure, function and interactions of living organisms including cell theory, genetics, energetics, evolution, and ecology. Pre-requisite/ Co-requisite: BIO 112. Laboratory: 1 credit (30 contact hours).

Components: Laboratory Attributes: SL - Science Laboratory, Course Also Offered in Modules

BIO 114(3) Course ID:000167
Biology I

Examines basic biological concepts such as cell structure and function, metabolism, the chemical basis of biology, protein synthesis, genetics, and evolution with emphasis placed on the cellular level. Co-requisite: BIO 114. 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 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 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:0004988
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 ecological warfare. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: SN - Science

BIO 120(3) Course ID:000126
Human Ecology

Interrelationships among humans, other organisms and the environment including principles of energy and matter, resource use, biogeochemical cycling, trophic structures, sustainability and environmental impacts by humans. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: SN - Science

BIO 124 Course ID:000177
Principles of Ecology

Study of the principles and interrelationships between organisms and their environment with emphasis on the analytical and statistical methods of ecology. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: SN - Science

BIO 130(3) Course ID:000170
Aspects of Human Biology

Aspects of human biology will be introduced from the molecular level to the integrated whole. Attention will be given to the biological bases of various health and wellness issues. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: SN - Science

BIO 132(2) Course ID:006819
Foundations of Cell Biology

Creates a foundation of biology and chemistry as preparation for higher level biology courses. Pre-requisite: Co-requisite: Placement above or concurrent enrollment in RDG 30 and (placement above or concurrent enrollment in ENC 91) and (placement above or concurrent enrollment in MAT 65) or consent of instructor. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: SN - Science

BIO 135(4) Course ID:000169
Basic Anatomy and Physiology with Laboratory

Pre-requisite: (Placement above or concurrent enrollment in RDG 30 and (placement above or concurrent enrollment in MAT 65) or consent of the instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture Attributes: SL - Science Laboratory, SN - Science

BIO 137(4) Course ID:000172
Human Anatomy and Physiology I

The interrelationship of structure and function of each body system will be presented in two semesters. The first semester will include basic chemistry, cell structure, cell physiology, metabolism, tissues, and integumentary, skeletal, muscular, and nervous systems. 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. Lecture: 3.0 credits (45 contact hours); Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

BIO 139(4) Course ID:000174
Human Anatomy and Physiology II

The second semester continues the study of the interrelationships of organ systems, including the endocrine, reproductive, cardiovascular, lymphatic, digestive, respiratory, and urinary systems. 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:000130
Botany
The anatomy, physiology, and biodiversity of plants emphasizing life processes, the cell, development, heredity, plant systems, evolution, taxonomy, phylogeny and ecology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 141(4) Course ID:000178
Botany with Laboratory
The anatomy, physiology, and biodiversity of plants emphasizing life processes, the cell, development, heredity, plant systems, evolution, taxonomy, phylogeny and ecology. Includes laboratory studies of thermophysics, 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:000128
Zoology
The anatomy, physiology, and biodiversity of animals emphasizing life processes, the cell, development, heredity, body systems, evolution, taxonomy, phylogeny 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, phylogeny 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:002215
Insect Biology
Presents an overview of the biology of both beneficial and detrimental insects including physiology, behavior, ecology, and evolution. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 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 20 or above or MA 109, past or current enrollment in CHE 105. (KCTCS equivalents: MA 109=MA 105, 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

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

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.
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 155(3) Course ID:006342
Astrobiology
Examines topics related to the origins of planets, the requirements for life, the search for life away from Earth, the societal implications of discovering other forms of life, and the future of life on Earth and in space. Pre-requisite: Math ACT of 23 or above or MA 109, past or current enrollment in CHE 105. (KCTCS equivalents: MA 109=MA 105, CHE 105=CHE 170). Laboratory: 1 credit hour (2 contact hours).
Components: Laboratory
Attributes: University Course (University of Kentucky)

BIO 159(2) Course ID:000142
Introductory Microbiology Laboratory
Lecture exercises in general microbiology. Lecture: 2 hours; Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 201(4) Course ID:006807
Biological Inquiry and Analysis
An inquiry-based introduction to concepts in biology. Research-oriented activities will emphasize the skills and attitudes necessary for understanding and conducting scientific inquiry. Lecture: 3.0 credits (45 contact hours); Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: University Course (Murray State University)

BIO 220(3) Course ID:000139
The Genetic Perspective
Covers introductory genetics for non-science majors examining how heredity affects humans and the remainder of the world and providing some insights into other fields of science from the geneticist’s perspective. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 225(4) Course ID:000162
Medical Microbiology
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 (30 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:004969
Principles of Microbiology with Laboratory
Introduction to fundamental microbiological principles and techniques emphasizing structural, functional, ecological, and evolutionary relationships among microorganisms. Includes laboratory exercises in general microbiology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 2 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 259(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. 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 subtitles for a maximum of six credits. Pre-requisite: Permission of Instructor. Lecture: Varies with credit.
Components: Lecture
Attributes: Other

BIO 1121(0.75) Course ID:006122
Science, Biochemistry, and Hierarchy of Life
Covers basic studies of the Scientific method, the molecules of life and the hierarchy of life. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

BIO 1122(0.75) Course ID:006123
Cell Structure, Function, Energetics, and Cell Division
Covers 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 System, 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 1201(1) Course ID:016644
Human Ecology Principles
Parent description: Interrelationships among humans, other organisms and the environment including principles of
energy and matter, resource use, biogeochemical cycling, trophic structures, sustainability and environmental impacts by humans. This module emphasizes basic scientific principles, biogeochemical cycles, biodiversity, natural selection, and sustainability and conservation. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

**BIO 1202(1)** Course ID:011646

**Population Dynamics**

Parent description: Interrelationships among humans, other organisms and the environment including principles of energy and matter, resource use, biogeochemical cycling, trophic structures, sustainability and environmental impacts by humans. This module emphasizes population dynamics and interrelationships among organisms in food webs and human impact on the environment. Pre-requisite: BIO 1201. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

**BIO 1203(1)** Course ID:0116647

**Pollution Impacts**

Parent description: Interrelationships among humans, other organisms and the environment including principles of energy and matter, biogeochemical cycling, trophic structures, sustainability and environmental impacts by humans. This module emphasizes human impact on ecosystems. Agriculture, toxic risks, pollution, and waste management are covered. Pre-requisite: BIO 1202. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

**BIO 1301(0.75)** Course ID:011648

**Science, Cell & Chemistry Basics**

Aspects of human biology from the molecular level to the integrated whole. Attention given to the biological basis of various health and wellness issues. This module covers the scientific method, basic biochemistry, levels of biological organization, eukaryotic cell structure and function, cellular respiration, and a survey of the interrelationships of the system functions and disorders. Lecture: 0.75 credits (11.25 contact hours).

Components: Lecture

**BIO 1302(0.75)** Course ID:0116649

**Health Issues**

Aspects of human biology from the molecular level to the integrated whole. Attention given to the biological basis of various health and wellness issues. This module covers the biological basis of health issues with a focus on cardiovascular, immune, lymphatic, and respiratory systems. Pre-requisite: BIO 1301. Lecture: 0.75 credits (11.25 contact hours).

Components: Lecture

**BIO 1303(0.75)** Course ID:0116650

**Body Systems and Disease Prevention**

Parent Course Description: Aspects of human biology will be introduced from the molecular level to the integrated whole. Attention will be given to the biological basis of various health and wellness issues. Module Description: Covers the health-related factors with an emphasis on the digestive, endocrine, muscular, nervous, skeletal, and urinary systems. Discusses health promotion and disease prevention with discussion on personal behavior and environmental factors. Pre-requisite: BIO 1302. Lecture: 0.75 credits (11.25 contact hours).

Components: Lecture

**BIO 1304(0.75)** Course ID:0116651

**Genetics & Reproduction**

Parent Course Description: 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. Module Description: Covers the inter-relatedness of the levels of biological organization with an emphasis on inheritance and genetic abnormalities. Emphasizes cell division processes, sexuality, pregnancy, embryonic development, birth control, and sexually transmitted diseases. References material from the prerequisite modules in the series as the inter-relatedness of the levels of biological organization, including body systems, is a course competency. Pre-requisites: BIO 1303. Lecture: 0.75 credits (11.25 contact hours).

Components: Lecture

**BIO 1351(1)** Course ID:0116826

**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 throughout 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:0116827

**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 throughout lecture and student participation in laboratory activities. Pre-requisite: BIO 1351 or Consent of Instructor. Components: Laboratory, Lecture

**BIO 1353(1)** Course ID:0116828

**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 throughout lecture and student participation in laboratory activities. Pre-requisite: BIO 1352 or Consent of Instructor.

Components: Laboratory, Lecture

**BIO 1354(1)** Course ID:0116829

**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 throughout 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

**BIO 1371(1)** Course ID:006651

**Chemistry and Cells**

Provides an introduction to cell chemistry, cell structure and function, and the homeostatic relationships among all body systems. There is also an overview of all systems of the body, body regions, directions, and activities. Pre-requisite: Reading, English, and Mathematics assessment exam scores above the KCTCS developmental level or successful completion of the prescribed developmental course(s) or consent of the instructor. Lecture/Lab: 1.0 credit (18.75 contact hours).

Components: Lecture

**BIO 1372(1)** Course ID:006652

**Tissue, Skin & Skeleton**

Provides an introduction to the structure and function of major tissue types and anatomy and physiology of the integumentary and skeletal systems as well as common dysfunctions of these. Pre-requisite: BIO 1371. Lecture/Lab: 1.0 credit (18.75 contact hours).

Components: Lecture

**BIO 1373(1)** Course ID:006653

**Muscles and Metabolism**

The interrelationship and structure and function of the muscular system and how it is involved in maintaining homeostasis and how it relates to biochemistry and metabolism. There is also a focus on muscular anatomy and movements. Pre-requisite: BIO 1371 and BIO 1372. Lecture/Lab: 1.0 credit (18.75 contact hours).

Components: Lecture

**BIO 1374(1)** Course ID:006654

**Nervous System**

Provides an introduction to the anatomy and physiology of the nervous system as well as common dysfunctions of this system. Pre-requisite: BIO 1371, BIO 1372, and BIO 1373. Lecture/Lab: 1.0 credit (18.75 contact hours).

Components: Lecture

**BIO 1391(1)** Course ID:006655

**Endocrine and Reproduction**

Provides an introduction to the anatomy and physiology of the endocrine and reproductive systems. Pre-requisite: BIO 137. Lecture/Lab: 1.0 credit (18.75 contact hours).

Components: Lecture

**BIO 1392(1)** Course ID:006656

**Digestive and Lymphatic System**

Provides an introduction to the anatomy and physiology of the digestive and lymphatic systems as well as common dysfunctions of these systems. Pre-requisite: BIO 1391. Lecture/Lab: 1.0 credit (18.75 contact hours).

Components: Lecture

**BIO 1393(1)** Course ID:006657

**Cardiovascular System**

Provides an introduction to the anatomy and physiology of the cardiovascular system as well as common dysfunctions of this system. Pre-requisite: BIO 1391 and BIO 1392. Lecture/Lab: 1.0 credit (18.75 contact hours).

Components: Lecture

**BIO 1394(1)** Course ID:006658

**Respiratory and Urinary System**

Provides an introduction to the anatomy and physiology of the respiratory and urinary systems as well as common dysfunctions of these systems. Also provides an overview of the physiological processes of water and electrolyte balance and mechanisms of homeostasis within these systems. Pre-requisite: BIO 1391, BIO 1392, BIO1393. Lecture/Lab: 1.0 credit (18.75 contact hours).

Components: Lecture

**BIO1L Biology**

**BIO 110(3)** Course ID:006760

**Inquiry Biology for Teachers**

Introduces the study of living things, cell structure and function, photosynthesis, respiration, reproduction, growth, heredity, evolution, and ecology. It is NOT ACCEPTABLE for biology majors, minors, or areas. This course satisfies the area studies-natural and mathematical sciences for general education only for education majors. Lecture: 3.0 credits (60 contact hours).

Components: Lecture

Attributes: University Course (Morehead State University)

**BMO Business and Office Technology**

**BMO 170(3)** Course ID:001125

**Introduction to Business Management**

This course introduces the concepts and principles of effective business management and includes forms of business ownership, typical business organizational structures, relationship of business to the community, and the effect of government regulations on businesses.

Components: Lecture

Attributes: Technical

**BMO 270(3)** Course ID:001130

**Business Management**

This course further develops concepts and principles needed for managing a business or department within business. Problem-solving activities and case studies are used in researching the position of the manager in the typical business. Product and service promotion in business; the effects government regulations have on businesses; and educational requirements of a professional management career are topics covered in the course. Pre-requisite: BMO 170.

Components: Lecture

Attributes: Technical
BMT Biomedical Equipment Technology

BMT 110(1) Course ID:001131
**Hazardous Risks Encountered by BMETs and Methods of Prevention**
Emphasizes origin of hazardous occurrences within a healthcare setting encountered by Biomedical Equipment Technicians and the appropriate methods used to eliminate, reduce or avoid such occurrences. Addresses safety concerns associated with fire, medical gases, radiation, body fluids, microorganisms, devices, and people. Prerequisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Pre-requisite or Co-requisite: AIT 100 or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

BMT 110(2) Course ID:001133
**BMT Career Perspectives and Field Practices**
Provides information on employment and career advancement opportunities as well as practices in support of hospital-wide safety program. Pre-requisite: BMT 100. Lecture/Lab: 2.0 credits (37.5 contact hours), (30:1 Ratio Lab).
Components: Lecture Attributes: Technical

BMT 120(4) Course ID:001135
**Essentials of Analog and Digital Electronics for BMETs: Level 1**
Emphasizes basic analog and digital devices and associated circuits as well as their use within medical equipment. Pre-requisite or Co-requisite: AIT 110. Lecture/Lab: 4.0 credits (75 contact hours). (30:1 Ratio Lab).
Components: Lecture Attributes: Technical

BMT 130(4) Course ID:005953
**Essentials of Analog and Digital Electronics for BMETs: Level 2**
Emphasizes advanced analog and digital devices and associated circuits as well as their use within medical equipment. Pre-requisite: BMT 120. Lecture/Lab: 4.0 credits (75 contact hours) (30:1 Ratio Lab).
Components: Lecture Attributes: Technical

BMT 140(4) Course ID:005954
**Biomedical Instrumentation and Biophysical Measurements**
Emphasizes biophysical signals and measurements obtained from the human body, their clinical significance, factors which may affect their appearance or numerical value, and the technology used to detect, process, display and record such information. Pre-requisite: BMT 130 and BID 135 Pre-requisite or Co-requisite: PH 171. Lecture/Lab: 4.0 credits (90 contact hours). (30:1 Ratio Lab).
Components: Lecture Attributes: Technical

BMT 210(1) Course ID:001138
**Fundamental Engineering Design Principles Encountered in Medical Technology**
Emphasizes a variety of engineering and scientific principles and their applications in the design and operation of medical equipment including pressure, fluid mechanics, thermodynamics, optics, and sound. Pre-requisite: PH 171 and (MT 125 or higher). Lecture/Lab: 1.0 credit (18 contact hours) (30:1 Ratio).
Components: Lecture Attributes: Technical

BMT 215(4) Course ID:005966
**Principles and Practices of Medical Equipment Maintenance and Management**
Investigates key aspects of a Medical Technology Management Program. Emphasizes medical device service principles and practices including inspecting, testing, maintenance, calibration, and repairs. Pre-requisite/ Co-requisite: BMT 110. Co-requisite: BMT 230. Lecture/Lab: 4.0 credits (75 contact hours) (30:1 Ratio Lab).
Components: Lecture Attributes: Technical

BMT 220(3) Course ID:001141
**Understanding, Maintaining, and Servicing Specialized Medical Equipment**
Explores the purpose and functionality of various types of specialized medical technology as well as their performance testing, maintenance, and management requirements. Emphasizes mechanical ventilators, anesthesiachines, hemodialysis machines, video endoscopy systems, and other imaging modalities such as digital radiography, fluoroscopy, and diagnostic ultrasound. Pre-requisite: BMT 130 or consent of instructor, BMT 210 and BMT 215. Pre-requisite or Co-requisite: BMT 110. Lecture/Lab: 3.0 credits (60 contact hours). (30:1 Ratio Lab).
Components: Lecture Attributes: Technical

BMT 240(3) Course ID:001143
**Understanding, Maintaining, and Servicing**

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, multi-view drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical tool 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, sheetmetal 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 and construction dimensioning systems and charts/schedules.
Components: Lecture Attributes: Course Also Offered in Modules, Technical

BRX 230(1) Course ID:005631
**Print Reading Fundamentals**
Presents basic applied math, lettering, lines, multi-view drawings, title blocks, material lists and the drafting change system. Lecture: 1 credit (15 contact hours).
Components: Lecture

BRX 230(1) Course ID:005632
**Drawing Views and Setup**
Presents sketching, auxiliary and sectional views. Pre-requisite: (BRX 120 with a grade of C or better) or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

BRX 230(1) Course ID:005633
**Dimensioning and Tolerances**
Presents print dimensioning and tolerances and thread specifications. Pre-requisite: (BRX 120 with a grade of C or better) or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

BRX 2201(1) Course ID:0016150
**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 charts/schedules. Lecture: 1.0 credits. (15 contact hours).
Components: Lecture

BRX 2202(2) Course ID:0016151
**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 and building materials specifications lists, and charts/schedules. Pre-requisite: BRX 2201 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture

BSE Building Science Engineering

BSE 150(5) Course ID:006867
**Energy Auditor Preparation**
A scientific foundation upon which inspectors and auditors can build an accurate understanding of modern structures including an overview of technology, examples of typical installations and their defects, procedures for performing audits, and guidelines for analyzing potential retrofits. Presents a balanced approach to building performance to address energy efficiency, building durability, and human health. Lecture/Lab: 5.0 credits (90 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules

BTN Biotechnology Laboratory Technician

BTN 100(4) Course ID:007277
**Contextual Science with Laboratory**
Introduces students to laboratory focused concepts and skills necessary for entry-level positions in biotechnology laboratory. Exposes students to selected laboratory exercises that parallel the concepts introduced in BTN 103 and BTN 104. Co-requisite: BTN 103, BTN 104. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

BTN 101(1) Course ID:004277
**Introduction to Biotechnology**
Introduces current and future applications of biotechnology. Covers biotechnology career opportunities and bioethics. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical
BTN 102(4) Course ID: 007077
Introduction to Biotechnical Engineering
Project Lead The Way course in Biotechnical Engineering. Exposes students to the diverse fields of biotechnology including biomedical engineering, bio-molecular genetics, bioprocess engineering, as well as environmental engineering. Engages students in engineering design problems related to biomechanics, cardiovascular engineering, genetic engineering, agricultural biotechnology, tissue engineering, biomedical devices, human interface, bioprocesses, forensics, and bio-ethics. Pre-requisite or Co-requisite: Successful completion of, or concurrent enrollment in, high school biology or chemistry course or equivalent or consent of instructor. Lecture: Lab: 4.0 credits (105 contact hours).

Components: Lecture
Attributes: Technical

BTN 103(3) Course ID: 007278
Contextual Laboratory Language
Introduces students to basic scientific language and concepts of biotechnology. Academic study skills needed for success in bioscience courses will be emphasized. Covered topics parallel the concepts introduced in BTN 100 and BTN 104. Co-requisite: BTN 100 and BTN 104. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

BTN 104(3) Course ID: 007279
Contextual Laboratory Math
Introduces concepts of basic laboratory calculations emphasizing practical applications in biotechnology laboratories. Covered topics parallel the concepts introduced in BTN 100 and BTN 103. Co-requisite: BTN 100 and BTN 103. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

BTN 105(3) Course ID: 007346
Applied Laboratory Calculations for Biotechnology
Introduces concepts, techniques, and applications of common basic laboratory calculations that are routinely used in the biotechnology laboratory. Emphasizes application of basic computational concepts required of biotechnicians. Requires students to apply strategies to calculate amounts of chemicals required to make solutions, calibrate instruments, collect data, and interpret data. Introduces some computer applications. Pre-requisite: MAT 053 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: Laboratory
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 products. Surveys basic biomanufacturing principles and procedures designed to assure the quality and safety of 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. Co-requisite: BTN 201 and BTN 202. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

BTN 120(4) Course ID: 007348
Biofuels
Introduces students to combustion fuels made from nonpetroleum resources. BTN 201 provides topics on feedstocks, processing, utilization, and social impacts. Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of program coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

BTN 125(2) 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 molecular 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 analysis. 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 method and strategies relating to applications of biotechnology in agriculture. Emphasizes emerging technologies in the area of agricultural biotechnology including food and natural resources. 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
Attributes: Technical

BTN 201(4) Course ID: 005620
Biotechnique 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 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: 005671
Biotechnique 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
Attributes: Technical

BTN 295(1 - 3)
Independent Investigation in Biotechnology
Investigates specific topics or problems in the field of the biotechnology under direction of the faculty. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of instructor. Lab: 1.0 - 3.0 credits (30-90 contact hours).

Components: Laboratory
Attributes: Technical

BTN 298(1 - 8)
Biotechnology Learning Laboratory
Provides contextual, real-world experience and an opportunity to reinforce previously learned concepts, skills, and critical thinking ability related to business and technical job functions typical of biotechnology companies. Prepares students to conduct mentored activities on various workforce projects assigned by Biotechnology faculty or other companies with biotechnology companies at the Learning Laboratory. Emphasizes twenty-first century skills and workforce readiness. May be repeated for a maximum of six credits. Pre-requisite or Co-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of program coordinator. Practicum: 1.0 - 8.0 credits (60-480 contact hours).

Components: Practicum
Attributes: Technical

BTN 299(1 - 3)
Selected Topics in Biotechnology
Addresses recent trends and discoveries in selected areas of biotechnology in a seminar format. Emphasizes discussion and critical thinking. May be repeated for a maximum of 12 credits if topics and/or learning outcomes vary. Pre-requisite: Permission of instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).

Components: Lecture
Attributes: Technical

BTS Biomedical Technology Systems

BTN 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 regard to career opportunities, job expectations, and professional growth. Prerequisite: 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
Environmen tal Risks and Precautionary Measures for the BTS Service Professional
Presents potential and basic knowledge for those involved with Biomedical Technology Systems will encounter 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 subsystems 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 110(1) 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, infantabduction systems, and telemedicine. Pre-requisite: BTS 125 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
Attributes: Technical

**BTS 210(2)** Course ID:007231
Diagnostic Medical Equipment and Non-Radiographic Imaging Modalities
Presents medical equipment and instrumentation used to assess biophysical signals and images for diagnostic purposes. Examines such technology in terms of principles of operation and measuring its performance. Focuses on a variety of diagnostic technologies including the electrocardiograph and electroencephalograph machines, the pulmonary function analyzer, video endoscopy systems, ultrasonic imaging machines, and magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, BTS 125, and BTS 140 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, hematologic 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 settings 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 160 Lecture/Lab: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

**BTS 260(2)** Course ID:007235
Radiographic Imaging Modalities
Presents radiographic imaging systems routinely employed in health care settings with regard to the technology, theory of operations, and quality assurance testing. Examines 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 I
Presents therapeutic medical equipment typically utilized within the perioperative and intensive care settings. Focuses on clinical applications, circuit design and circuit operation, operator controls and equipment setup, managing device alarms, addressing maintenance requirements, and meeting performance and safety standards. Emphasizes a variety of medical technologies including therapeutic ultrasound units, electrical stimulation units, dialysis machines, oxygen concentrators, and hyperbaric chambers. Pre-requisite: BTS 210 and BTS 230 (each with a grade of C or better.) Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
Attributes: Technical

**BTS 280(2)** Course ID:007237
Therapeutic Equipment Modalities II
Presents therapeutic medical equipment typically utilized outside the perioperative and intensive care settings primarily towards physical therapy and treatment interventions. Focuses on clinical applications, circuit design and circuit operation, operator controls and equipment setup, managing device alarms, addressing maintenance requirements, and meeting performance and safety standards. Emphasizes a variety of medical technologies including therapeutic ultrasound units, electrical stimulation units, dialysis machines, oxygen concentrators, and hyperbaric chambers. Pre-requisite: BTS 210 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 290(2)** Course ID:007238
Critical Care Monitoring and Instrumentation
Continues the presentation of various physiological parameters measured in low and high acuity situations typically encountered in critical care settings along with the instrumentation used to obtain such information. Focuses on how the technology works and how to evaluate its performance and safety. Emphasizes knowledge of medical technologies including scales, thermometers, general electrocardiograph monitors, non-invasive blood pressure monitors, pulse oximeters, and spirometers. Pre-requisite: BIO 135, BTS 125, and BTS 140 (each with a grade of C or better.) Pre-requisite Or Co-requisite: BTS 230. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
Attributes: Technical

**BTS 285(2)** Course ID:007239
General Care Monitoring and Instrumentation
Continues the presentation of various physiological parameters measured in low and high acuity situations typically encountered in critical care settings along with the instrumentation used to obtain such information. Focuses on how the technology works and how to evaluate its performance and safety. Emphasizes knowledge of medical technologies including scales, thermometers, general electrocardiograph monitors, non-invasive blood pressure monitors, pulse oximeters, and spirometers. Pre-requisite: BIO 135, BTS 125, and BTS 140 (each with a grade of C or better.) Pre-requisite Or Co-requisite: BTS 230. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
Attributes: Technical

**BTS 290(2)** Course ID:007240
Clinical Experience in Biomedical Technology Systems
Provides an opportunity for the student to apply their knowledge and skill regarding various biomedical technology systems and equipment within a real-world environment. Requires the student to complete 120 contact hours of experiential training under the guidance of an assigned clinical supervisor. Pre-requisite: BTS 200, BTS 220, and BTS 230 (each with a grade of C or better.) Pre-requisite Or Co-requisite: BTS 250, BTS 260, BTS 270, and BTS 285. Clinical: 2.0 credits (120 contact hours).

Components: Clinical
Attributes: Technical
CAD Computer-Aided Design

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: Lecture Attributes: Technical

CAD 102(4) Course ID: 004052
DRAFTING FUNDAMENTALS
Explores the fundamentals of drafting in the use of equipment through measurement of lines, angles, circles, arcs, and irregular curves; 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 103(4) Course ID: 015755
CAD Fundamentals
Provides an introduction to team and project-based study of CAD (Computer Aided Drafting) and its application in conjunction with current computer technology. Introduces topics that include computer hardware and software, drafting conventions and operations, file management, the Internet, e-mail, social media, CAD commands and terminology, digital security, and computer and intellectual property ethics; presents basic applications of CAD skills in 2D/3D technical drawing production, programming, systems, and interconnections with other utility software. 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 measurement, instruments, construction surveying, GPS, and GIS. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CAD 112(4) Course ID: 004064
Engineering Graphics
Explores lines and planes as they relate to orthographic projections to show the size and shape of objects, as well as for descriptive geometry in solving advanced problems. Includes application of principles and graphic elements of sectioning; techniques involved in oblique projections, axonometric projections, and perspective drawings; and dimensioning techniques and symbol usage common to all drafting disciplines. 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 methodologies 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 the 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
Produces advanced two- and three-dimensional objective drawings with CAD software to learn the techniques of drafting, layering, and symbols associated with one or more design applications, and calculate areas, volumes, 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 201(4) Course ID: 000219
Parametric Modeling
Introduces parametric modeling and design of a CAD workstation in exploring the techniques of drafting and design using parametric modeling software. Introduces creation of parametric models and explores associative function and flexibility of concurrent design. 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 212(4) Course ID: 004059
Industrial Drafting Processes
Explores weldment design, welding symbols, welding processes, and fabrication techniques, tool and die, and fixture drawings. Includes design specifications, pattern drawings, casting, forming processes, and mechanical drawing principles in relation to the manufacturing industry. Covers screw-thread design and related fastening concepts as they relate to manufactured items and construction. Pre-requisite: CAD 100 ORCAD 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: 001649
Building Information Modeling
Introduces Building Information Modeling (BIM), an intelligent model-building process that provides insight to the building design, construction, management, 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: 004068
Architectural Design
Applies the theory of architectural design and presentation techniques. Deals with site selection, use of materials in design, spatial relationships, and aesthetics. Explores traditional and contemporary design, designers, processes, and historical milestones. Uses board and computer techniques to illustrate interiors and exterior designs. 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 222(4) Course ID: 004061
Mechanical Design
Explores the design principles, mechanical adaptation, and drawing practices involved in the development of mechanical working drawings and the design principles in various manufacturing disciplines; gear drawing and anodes, and cam and follower drawing and design; mechanical assemblies, machine design, power transmission, bearings, and seals in assemblies. Involves shop processes in these mechanical designs. Pre-requisite: CAD100 with a grade of C or Better or Approval of the 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 stone construction. Includes the development of a portfolio for these 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 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 drafting application 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 drafting 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 task assignments under the instructor's guidance or based on applications the student may one day experience as a professional. Sets the foundation for
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 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 basic management methods of 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 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: Permission of the instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

CAR 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. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAR 298(1 - 3) Course ID:004065
Department Consent Required
Practicum
Provides supervised work experiences related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Approval of Program Coordinator. Practicum: 1.0-3.0 credits (45-135 contact hours).
Components: Practicum
Attributes: Technical

CAR 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 140(3) Course ID:001154
Surveying & Foundations
 Enables the student to become familiar with construction surveying methods, site layout procedures and materials used in the construction of foundation systems as well as discussion on the use of the builders level, transit and laser levels. Covers the characteristics of concrete, excavation procedures, forming methods and material estimating. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CAR 141(2) Course ID:001155
Surveying & Foundations-Lab
Familiarizes the student with construction surveying methods, site layout procedures and materials used in the construction of foundation systems as well as the application of the builders level, transit and laser levels. Covers the application of concrete procedures, excavation procedures, forming methods and material estimating. 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, fireproofing encasement forms, stair forms, bridge and deck forms. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CAR 151(2) Course ID:001157
Concrete Formwork-Lab
Introduces the carpentry student to heavy and commercial concrete form construction methods. Provides for the application of information about the properties of concrete, rigging, concrete wall form systems, above grade floor systems, vertical piers and column form systems, on grade curb forms, horizontal beam forms, fireproofing encasement forms, stair 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:001158
Light Frame Construction I
Emphasizes methods of floor, wall and stair framing, layout and construction. Provides discussion of industry safety standards and building codes. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CAR 191(2) Course ID:001159
Light Frame Const. I-Lab
Permits the student to practice floor, wall, and stair framing layout and construction techniques including the implementation of building codes and industry safety standards during lab or job-site practice. Co-requisite: CAR 190. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

CAR 196(3) Course ID:001160
Light Frame Construction II
Covers basic roof design and combination roof designs used in the construction industry including the layout and installation practices that will be used to fabricate and install ceiling and roof framing systems. Provides discussion of job-site safety practice, scaffold and ladder safety that deals with roof construction, and building code requirements for roof construction and material estimating. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CAR 197(2) Course ID:001161
Light Frame Const. II-Lab
Covers basic roof design and construction methods used in the construction industry including layout, cut and install ceiling joists, rafters, and roof deck 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. Co-requisite: CAR 196. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

CAR 198(1 - 6) Course ID:005344
Instructor Consent Required
Special Topics in Carpentry
Includes various Construction Carpentry Technology topics, issues and trends. Topics may vary semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. 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: 2.0-4.0 credits (150-300 contact hours).
Components: Co-Op
Attributes: Technical

CAR 200(3) Course ID:001162
Light Frame Construction III
Presents the concepts of interior and exterior finish materials and methods of installation. Lecture: 3 credits (45 contact hours).
Components: Lecture
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:001164
Light Frame Construction IV
Covers the concepts that support the planning, construction and installation methods for kitchen and bathroom cabinets and countertops. Provides discussion of special finish trim techniques including finish stair construction and specialty millwork. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CAR 241(2) Course ID:001165
Light Frame Const. IV-Lab
Allows the student to practice the concepts that support planning, construction and installation methods for kitchen and bath cabinetry and countertops including special finish trim techniques of finish stair construction and specialty 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. The work will consist of a minimum of 150 contact hours. Two credit hours will be granted after completion. Students participating in the Practicum donot receive compensation as in the co-op program. Pre-requisite: ISX 100 and/or Permission from program Instructor. Co-op: 2 credits (150 contact hours).

Components: Practicum
Attributes: Technical

CAR 298(2) Course ID:001167

Co-op in Construction
Refines the techniques and skills taught in the previous carpentry courses. Provides a supervised on-the-job experience related to the students educational and career training objectives. The program will consist of a minimum of 150 contact hours. 2.0 contact credit will be granted after completion. Pre-requisite: ISX 100 and/or permission from program Instructor. Co-op: 2 credits (150 contact hours).

Components: Co-op
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 Community Dental Health

CDH 110(3) Course ID:016830

Dental Health Communication Skills
Provides an overview of oral health communication, oral health literacy, and patient assessment interviewingskills 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 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 wellas 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 registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CDH 120(2) Course ID:016832

Dental Health Teaching and Learning Skills
Provides an overview of teaching and learning skills as they apply to the Dental Health field. Includes teaching and learning techniques, goal setting and critical thinking. Covers internet usage and safety as well as an introduction to concepts of lifelong learning. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

CDH 122(0) Course ID:016833

Prevention of Periodontal Disease
Covers education and procedures used in the prevention of periodontal disease. Includes soft deposits, calculusand identification of tissue changes as well as characteristics of the most common types of periodontal disease. Covers oral cancer treatment and use of sickle scalers for performing gross debridement. Prevents/Coronal polishing. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CDH 245(3) Course ID:016834

Community Dental Health Coordinator Internship
Demonstrates practical application of the Community Dental Health Coordinator (CDHC) skills in a practicumsetting. Includes knowledge and skills required to organize, develop and manage integrated dental care community-based clinics within practice standards. Pre-requisite: Must be a registered Dental Hygienist (RDH). Practicum: 6.0 hours (360 contact hours).

Components: Lecture
Attributes: Technical

CET Civil Engineering Technology

CET 150(3) Course ID:004703

Civil Engineering Graphics
This course provides the opportunity for the student to learn the basic theory necessary to generate and understand typical civil engineering working drawings. The student will develop graphic communication skill using current industry standard software. Pre-requisite: CAD 100 or ACH 165/195, MA 109, and CE 211. 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 structure for civil engineering technology students, including different types of building loads and their effect upon the various materials used by architects, engineers and technologists. The students will be introduced to quality construction techniques utilizing steel, concrete and reinforced concrete. Industry manuals, specifications and computer programs will be utilized to familiarize the students 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 include the application of surveying practices for route surveying for highways, constructionstaking, and topographic surveys. Students will perform deed research and evaluation, convert outdated deed descriptions into current measurements, and prepare record plats. Pre-requisite: CE 211. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture

CET 260(3) Course ID:004707

Hydrology and Drainage
Students will be introduced to the fundamentals of hydrology, including hydrualics of open and closedsystems, water quality and drainage. Characteristics of pressures 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 exporeduing computer design software. Pre-requisite: CAD 100 or ACH 165/195, MA 109, and CE 211. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture

CET 295(1 - 4) Course ID:005036

Instructor Consent Required

Independent Problems
A problem or special project, approved by the instructor, will provide an opportunity for independent study. Pre-requisite: Consent of instructor. Lecture: Variable. Laboratory: Variable.

Components: Laboratory, Lecture
Attributes: Technical

CHE Chemistry

CHE 120(3) Course ID:000237

Chemistry in Society
Introduces non-science majors to the main concepts and applications of chemistry in our society. 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: Lecture
Attributes: SN - Science, Course Also Offered in Modules

CHE 125(1) Course ID:006172

Chemistry in Society Laboratory
Reinforces concepts covered in CHE 120 and introduces scientific inquiry through selected experiments. Pre-requisite or Co-requisite: CHE 120, Laboratory: 1 credit (45 contact hours). 45:1 ratio.

Components: Laboratory
Attributes: SL - Science Laboratory
CHE 130(4) Course ID:000236
Introductory General and Biological Chemistry
Presents the elementary principles of general, organic and biological chemistry. Pre-requisite: (Applied Mathematics OR Intermediate Algebra or higher) with a grade of "C" or better OR (College level math ACT-T score). Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

CHE 140(3) Course ID:000224
Introductory General Chemistry
Introduces topics in general chemistry, including properties of matter, stoichiometry, gases, atomstructure, 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 prescribed 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 or Co-requisite: CHE 140. Laboratory: 1 credit (45 contact hours, 45:1 ratio).
Components: Laboratory
Attributes: SL - Science Laboratory, SN - Science

CHE 150(3) Course ID:000226
Introduction to Organic and Biological Chemistry
Continues the sequence begun in CHE 140. Introduces topics in organic chemistry and biochemistry. Introduces organic functional groups, their reactions, and the chemistry of proteins, nucleic acids, carbohydrates, and lipids. Pre-requisite: CHE 140 with a grade of C or better. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SL - Science Laboratory, SN - Science

CHE 155(1) Course ID:006173
Introduction to Organic and Biological Chemistry Laboratory
Reinforces concepts covered in CHE 150 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with the preparation, characterization, and purification of organic compounds and the reactions of biomolecules. 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, SN - Science

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 their 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

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 qualitative and quantitative 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, kinetics, thermodynamics and chemical equilibrium. Emphasizes solving 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 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 qualitative and quantitative techniques. Prerequisite: 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 190(3) Course ID:006802
Industrial Chemistry
Introduces topics in basic chemical engineering and chemical processing. Includes organic chemistry, synthetic polymers, energy sources, diffusion, fluid flow, heat transfer, recycling, air and water pollution. Intended for students in the chemical engineering technology program. Pre-requisite: (CHE 140 and CHE 145) or consent of instructor. Co-requisite: CHE 195. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

CHE 195(1) Course ID:006803
Industrial Chemistry Laboratory
Reinforces concepts covered in CHE 190. Includes basic laboratory techniques, methods, and selected experiments dealing with chemical engineering technology. Prerequisite: (CHE 140 and CHE 145) or consent of instructor. Co-requisite: CHE 190. Lecture: 1.0 credit hour (45 contact hours).
Components: Laboratory
Attributes: Other

CHE 253(3) Course ID:006580
Materials Science
The properties of materials as reflected by the atomic and electronic structure of their constituent elements. Mechanical, thermal, electrical, magnetic, optical, and chemical characteristics of metallic, ceramic, polymeric, and composite solids. Pre-requisites: CHE 180. Lecture: 3.0 (45 contact hours).
Components: Lecture
Attributes: University Course (University of Louisville)

CHE 270(3) Course ID:000230
Organic Chemistry I
Presents the fundamental principles of organic chemistry. Emphasizes the structures and properties of carbon-containing compounds. Introduces organic reactions, their mechanisms, and applications to synthesis. Pre-requisite: CHE 180 with a grade of C or better. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

CHE 275(2) Course ID:000231
Organic Chemistry Laboratory I
Introduces common techniques used in the laboratory for purification, separation, identification, and reactions of organic compounds. Pre-requisite: CHE 185 with a grade of C or better. Pre-requisite or Co-requisite: CHE 270. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 280(3) Course ID:000232
Organic Chemistry 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. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: SN - Science

CHE 285(2) Course ID:000233
Organic Chemistry Laboratory II
Explores the synthesis, purification, and characterization of organic compounds in the laboratory. Pre-requisite: CHE 275 with a grade of C or better. Pre-requisite or Co-requisite: CHE 280. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 290(1 - 3) Course ID:006175
Instructor Consent Required
Selected Topics in Chemistry: (Topic)
Presents a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. 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)
Explores experiments pertinent to a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. 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)
Offers the student the opportunity to perform laboratory research on a problem chosen by the instructor. Course may be repeated to a maximum of six credit hours. Pre-requisite: Consent of Instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory

CHE 1201(0.75) Course ID:006126
Fundamentals
Introduces non-science majors to the fundamentals and applications of chemistry in our society. 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
CIS 2304(0.3) Course ID:005849
Fundamental Computer Skills
Introduces computer skills fundamental to college success. Focuses on computer terminology; rudimentary skills of touch typing; creating simple documents, slide shows and spreadsheets; using a course management system; using a search engine to find information on the Internet; initializing and using student email and online services.

CIS 2303(0.3) Course ID:005850
Database 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

CIS 2304(0.3) Course ID:005851
Presentation Software Level 3
Uses advanced functions of presentation software. Includes working with complex presentations and the creation and preparation of data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1304) or consent of instructor. Lecture: 0.3 credit (4.5 contact hours).

Components: Lecture

CIT 90(3) Course ID:007435
Fundamental Computer Skills
Introduces computer skills fundamental to college success. Focuses on computer terminology; rudimentary skills of touch typing; creating simple documents, slide shows and spreadsheets; using a course management system; using a search engine to find information on the Internet; initializing and using student email and online services.

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, email, 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: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

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. Crosses 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 126 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: CIT 105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Course Equivalents: IMD 124

Attributes: Technical

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

Course Equivalents: IMD 124

Attributes: Technical

CIT 130(3) Course ID:004713
Productivity Software
Utilizes current word processing, spreadsheet, database, and presentation software application software to solve common business problems. Covers basic features of each software application. Pre-requisite: CIT 105 OR DSI 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
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:006602
C++ I
Introduces students to fundamental programming concepts using the C++ programming language. Includes datatypes, 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 datatypes, 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 144(3) Course ID:006190
Python I
Introduces students to fundamental programming concepts using the Python programming language. Includes datatypes, control structures, simple data structures, error-handling, modular programming, 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 145(3) Course ID:004715
Perl I
Provides students with an overview of the PERL scripting language. Includes coding, testing, and debugging PERL programs; using variables, operators, and data types; and using control structures, pattern matching, objects, and application scripts. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

CIT 147(3) Course ID:006903
Programming I: Language
Introduces students to fundamental programming concepts using an industry-specific or emerging programming language. Includes datatypes, 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 120(0.75)
Intro to Organic & Biochem
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

CIS 2304(0.3) Course ID:005849
Advanced Microcomputer Applications
Students use advanced functions of current software packages (word processing, spreadsheets, databases, management, presentation developers). Topics include working with complex documents, spreadsheets, and databases. Additionally, students will create sophisticated presentations and prepare data for distribution on the Web. Lecture: 3.0 credit hours. Pre-requisite: CIS 130 or consent of instructor.

Components: Lecture Course Equivalents: CIT 234
Attributes: Course Also Offered in Modules, Technical

CIS 2301(0.9)
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)
Spreadsheet 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 credit (13.5 contact hours).

Components: Lecture

CIS 2303(0.9)
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

CIS 2304(0.3)
Presentation Software Level 3
Uses advanced functions of presentation software. Includes working with complex presentations and the creation and preparation of data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1304) or consent of instructor. Lecture: 0.3 credit (4.5 contact hours).

Components: Lecture

CHE 1202(0.75)
Course ID:006129
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:006128
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
Course ID: 004716
Visual Basic CIT 148(3)
Introduces students to fundamental programming concepts using the Visual Basic programming language. Includes data types, control structures, simple data structures, 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) Course ID: 004717
Java I
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) Course ID: 004718
Internet Technologies
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 Or Co-requisite: CIT 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 152(3) Course ID: 007391
Social Media Tools and Technologies
Introduces students to web-based social media tools. Explores and researches online applications, social networks, and web branding. Develops skills to leverage social media applications and 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) Course ID: 006904
Web Page Development
Introduces web page design through the use of HTML and CSS. Uses text and/or web editors to create webdocuments with various formats and page layouts, multimedia, tables, and forms. Emphasizes W3C web design accessibility standards. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 157(3) Course ID: 006905
Web Site Design and Production
Introduces web site production processes with particular emphasis on design involving layout, navigation, interactivity, and using web production software. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

CIT 160(4) Course ID: 004719
Intro to Networking Concepts
Introduces technical level concepts of non-vendor specific networking including technologies, media, topologies, devices, management tools, and security. Provides the basics of how to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure. Pre-requisite: MAT 65 OR Consentof Instructor. Pre-requisite Or Co-requisite: CIT 111 OR Consent of Instructor Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 161(4) Course ID: 006906
Introduction to Networks
Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Helps students to be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Pre-requisite: MT 065 OR Consent of Instructor. Pre-requisite or Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 167(4) Course ID: 015644
Routing & Switching Essentials
Covers the architecture, components, and operations of routers and switches in a small network. Helps students learn how to configure a router and a switch for basic functionality. Helps students configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Pre-requisite: CIT 161 or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

CIT 170(3) Course ID: 004720
Database Design Fundamentals
Provides an overview of database and database management system concepts, internal design models, normalization, network data models, development tools, and applications. Pre-requisite: (CIT 105 OR CST 105 OR MID 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) Course ID: 006191
Security Fundamentals
Introduces basic computer and network security concepts and methodologies. Covers principles of security; compliance and operational security; threats and vulnerabilities; network security; application, data, and host security; access control mechanisms; 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 offensive techniques against real attacks. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 201(3) Course ID: 007295
Information Storage Management
Provides a comprehensive introduction to storage technology. Explores the architectures, features, and benefits of intelligent storage systems, networked storage technologies, long-term archiving solutions, information security, and the emerging field of storage virtualization and cloud technologies. Pre-requisite: (CIT 167 AND CIT 214 OR CIT 217) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

CIT 203(3) Course ID: 007296
Introduction to Virtualization
Provides an introduction to virtualization technologies including the architecture, its applications, and bestpractices. Utilizes VMware ESXi servers and VMware vCenter servers for creation and management of virtualmachines, virtual switches and storage architectures including distributed resource scheduling, highavailability, and fault tolerance. Satisfies the requirements for the VMware Foundations exam and the VMware Certified Associate Data Center Virtualization (VCA-DCV) course requirement. 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 206(3) Course ID: 016721
VMware Optimize and Scale
Provides advanced skills for configuring and maintaining a highly available and scalable virtualization infrastructure. Utilizes techniques to optimize resources in a virtualized data center to support infrastructure as a service (IaaS) services. Satisfies the VMware Certified Professional Data Center Virtualization (VCP-DCV) course requirement. Pre-requisite: CIT 203 or Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

CIT 205(3) Course ID: 007297
Cloud Infrastructure and Services
Provides a comprehensive introduction to cloud computing deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. Examines the required technology essentials across domains including server, storage, networking, applications, and databases to help develop a strong understanding of virtualization and cloud computing technologies. Pre-requisite: (CIT 201 and CIT 203) or Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

CIT 209(4) Course ID: 015645
Scaling Networks
Covers the architecture, components, and operations of routers and switches in a larger and more complex network. Helps students learn how to configure routers and switches for advanced functionality. Helps students to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Helps students to develop the knowledge and skills needed to implement DHCP and DNS operations in a network. Pre-requisite: CIT 167 or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

CIT 212(4) Course ID: 004723
Connecting Networks
Covers WAN technologies and network services required by converged applications in a complex network. Enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Helps students learn how to configure and troubleshoot network devices and resolve common issues with data networks. Helps students to develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a
complex network. Pre-requisite: CIT 209 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).

CIT 213(3) Course ID:006192
Microsoft Client Configuration
Provides students with the knowledge and skills to install, configure, and administer a network service 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 storageservices, 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 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 storageservices, 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: Course Also Offered in Modules, Technical

CIT 216(3) Course ID:015664
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 operating system shaped the development of the Internet and is still used extensively in servers, workstations, and mobile devices. Leam the foundational 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: Course Also Offered in Modules, 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, and configuration of the current Microsoft Windows client operating system. Helps prepare students for exams in the Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture/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: Integrated Laboratory, Integrated Lecture
Course Equivalents: CIT 269
Attributes: Technical

CIT 221(3) Course ID:006916
Computer Graphics
Introduces basic computer graphics with an emphasis on graphics for game design. Includes practical aspects of aspects such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Pre-requisite: CIT 105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Course Equivalents: IMD 221
Attributes: Technical

CIT 222(3) Course ID:016260
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 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 Course Equivalents: IMD 222
Attributes: Technical

CIT 223(3) Course ID:006917
3D Animation for Video Games
Introduces students to the special effects process of animating 3D assets for gaming applications. Familiarizes students with animating both organic and inorganic assets, lighting scenes, rendering and producing content, 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-designing software and processes. Pre-requisite: CIT/IMD 222 AND CIT/IMD 272 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Course Equivalents: IMD 233
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 using GIS 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 226(3) Course ID:006919
Selected Topics in GIS
Explores selected topics in Geographical Information Systems such as homeland security, agriculture, government applications, remote sensing, spatial modeling, GPS techniques, or cartography. (Course may be repeated with different topics to a maximum of six credits.) Pre-requisite: CIT 125 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 231(3) Course ID:016140
Management Information Systems
Introduces the sociotechnological aspects of information systems and their implications for organizations, as well as current topics and technologies associated with information systems. Emphasizes the Internet and commerce. Introduces other technologies both current and future. Ends with coverage of the combined application of sociotechnological principles and various technologies. Pre-requisite: Digital literacy offirmer permission. Lecture: 3.0 credits (Lab 45).

Components: Lecture
Attributes: Technical

CIT 232(3) Course ID:006193
Help Desk Operations
Introduces a variety of tools and technologies to provide user support in help desk operations. Explores helpdesk concepts, customer service skills, troubleshooting problems, writing for end users, help desk operations and software, needs analysis, facility management, and other topics related to end user support. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, 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 distributions on the Web. Pre-requisite: CIT 130 OR Consent of instructor. Lecture: 3.0 credits (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:006820
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 243(3) Course ID:006248
C# II
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the C# programming language. Includes advanced graphical user interfaces, event-driven 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 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 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 218) AND CIT 219). OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 257(3) Course ID:005625
Applied Internet Technologies
Provides a framework for integrating the content of the Internet Technologies Web Programming track into a course and functioning web site. Creates a portfolio of a fully functional web site to aid student development within the Web Programming field. Pre-requisite: CIT 253 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 258(3) Course ID:005211
Internet Technologies Seminar
Incorporates research, study, and discussion of current and emerging topics, issues, and trends in Internet technologies. Requires participation in class presentations, as well as individual and/or group project involving Internet technologies. Pre-requisite: CIT 253 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 260(3) Course ID:004730
Network Hardware Installation and Troubleshooting
Provides students with the knowledge and skills necessary to design, install, configure, and troubleshoot networking systems and equipment used to connect a local area network. 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 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 into the Microsoft certification exam series. Pre-requisite: (CIT 213 AND CIT 219) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 263(3 - 6) Course ID:006246
Advanced Topics in Microsoft Windows: (Topic)
 Covers concepts and 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: 1-6 credits (15-90 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 266(3) Course ID:006196
MS Enterprise Administration
Focuses on Windows server administration at the enterprise level. Covers planning networks and services, designing core identity and access management components, implementing a public key infrastructure, planning for restructuring forests and domains, and designing a virtualization strategy. Pre-requisite: (CIT 261 AND (CIT 214 OR CIT 262)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 269(3) Course ID:004731
Internet Protocols
Provides students with the knowledge and skills to install, configure, manage and troubleshoot internetworks using TCP/IP and its associated protocols. Pre-requisite: (CIT 111 AND CIT 160) or consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Course Equivalents: CIT 219

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 Course Equivalents: IMD 272 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 create 3D content, audio, narrative, character, and environment into a professional and enjoyable video game experience. Pre-requisite: CIT/IMD 223 AND CIT/IMD 272 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Course Equivalents: IMD 273 Attributes: Technical

CIT 274(3) Course ID:016263
Seminar in Game Development
Emphasizes 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 creation of a portfolio. Pre-requisite: CIT/IMD 223 AND Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Course Equivalents: IMD 274 Attributes: Technical

CIT 276(3) Course ID:006926
3-D Game Development: Language
Provides students with an introduction to three-dimensional game creation. Includes the creation of an object-oriented game development using an industry-specific or emerging programming language. Pre-requisite: CIT 246 (using the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 277(3) Course ID:006927
Programming III: Language
Introduces students to complex programming concepts using an industry-specific or emerging programming language. Includes complex features of the language not previously covered in Programming I and Programming II. Comprehensive projects will be developed that model work performed in a corporate environment. Pre-requisite: CIT 247 (for the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 278(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 interfacedesign, custom libraries, ActiveX Objects, and distributed applications. Pre-requisite: CIT 248 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 281(4) Course ID:004736
Routing
Provides students with the skills necessary to understand and apply concepts related to networking hardware. Covers advanced TCP/IP concepts such as IP addressing and subnetting, beginning router configuration, routed and routing protocols. Completes one of a series of four courses that prepares students for the Cisco Certified Network Associate (CCNA) certification exam. Pre-requisite: CIT 160 or consent of instructor. Lecture: 4 credits (60 contact hours).
Components: Lecture

CIT 282(4) Course ID:004737
Switching
Provides students with the skills necessary to understand and apply advanced networking concepts. Covers local area network (LAN) switching, virtual local area networks (VLANs), advanced network design concepts, advanced router configuration, and advanced network management projects. Completes one of four courses that prepares students for the Cisco Certified Network Associate (CCNA) certification exam. Pre-requisite: CIT 160 or consent of instructor. Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Technical

CIT 283(4) Course ID:004738
Wide Area Network Design and Management
Provides students with the skills necessary to understand and apply advanced principles and applications in deploying hardware networking. Covers WAN design, WAN connectivity protocols such as PPP, ISDN, and Frame Relay, as well as advanced network management projects. Completes the final course of four courses that prepares students for the Cisco Certified Network Associate (CCNA) certification exam. Pre-requisite: (CIT 281 and CIT 282) or consent of instructor. Lecture: 4 credits (60 contact hours).
Components: Lecture Course Equivalents: CIT 212 Attributes: Technical

CIT 284(3) Course ID:006629
Computer Forensics
Provides basic knowledge on methods and processes for computer forensics, intrusion detection, evidence collection,
CIT 479(1 - 3) Course ID:004742
Special Topics 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 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 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 1110(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 112 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 120(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) OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1203(1) Course ID:006979
Computer Programming Application
Develops 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 GST 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

CIT 1401(0.6) Course ID:006984
JavaScript Basics
Provides an overview of the JavaScript language. Introduces variables, operators, and data types. Pre-requisite: CIT 120 AND (CIT 150 or CIT 155) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 201(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 1402(0.8) Course ID:006985
Input/Output Processes
Introduces input and output statements using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1401 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

CIT 1403(0.8) Course ID:006986
Control Structures/Patterns
Introduces control structures and application scripts using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1402 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

CIT 1404(0.8) Course ID:006987
JavaScript Objects/Scripts
Introduces objects and application scripts using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1403 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

CIT 1421(0.6) Course ID:006988
C++ Overview
Introduces fundamental programming concepts using the C++ programming language. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

CIT 1422(0.8) Course ID:006989
C++ Control Structures
Introduces control structures for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1421 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

CIT 1423(0.8) Course ID:006990
C++ Functions
Introduces functions for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1422 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

CIT 1424(0.8) Course ID:006991
C++ Arrays and Pointers
Introduces arrays and pointers for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1423 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

CIT 1441(1) Course ID:016607
Python Overview
Introduces fundamental programming concepts (including data types and control structures) using the Python programming language. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

CIT 1442(1) Course ID:016608
Functions and Data Structures
Introduces simple data structures, error-handling, modular programming, and file processing using the Python programming language. Pre-requisite: CIT 1441 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

CIT 1443(1) Course ID:016609
Python 00ED Programming
Introduces object-oriented event-driven programming and graphical user interfaces using the Python programming language. Pre-requisite: CIT 1442 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

CIT 1481(0.6) Course ID:006992
Visual Basic Overview
Introduces fundamental programming concepts using the Visual Basic programming language. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

CIT 1482(0.8) Course ID:006993
VB Control Structures
Introduces control structures for the VB language. Identifies errors and code evaluation. Pre-requisite: CIS 1481 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

CIT 1483(0.8) Course ID:006994
VB Arrays
Introduces arrays and object oriented programming for the VB language. Identifies error-handling and code evaluation. Pre-requisite: CIS 1482 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

CIT 1484(0.8) Course ID:006995
VB File Processing
Presents modular programming and file processing for the VB language. Identifies error-handling and code evaluation. Pre-requisite: CIS 1483 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

CIT 1491(1) Course ID:016592
Java Programming Structure
Introduces students to fundamental programming concepts using the Java programming language including datatypes, control structures, error-handling, and simple data structures. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

CIT 1492(1) Course ID:016593
Java Object Oriented Design
Introduces students to fundamental programming concepts using the Java programming language to develop object-oriented and modular programming. Pre-requisite: CIT 1491 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

CIT 1493(1) Course ID:016594
The Java GUI
Introduces students to fundamental programming concepts using the Java programming language to develop graphical user interfaces. Pre-requisite: CIT 1492 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

CIT 1501(0.6) Course ID:006996
Internet Technologies
Presents traditional and emerging Internet technologies including Internet fundamentals and governing organizations for the web. Pre-requisite: (CIT 105 AND CIT 120) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

CIT 1502(0.6) Course ID:006997
Internet Tools
Provides an overview of Internet Technologies and protocols across the Internet. Pre-requisite: CIT 1501 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

CIT 1503(0.8) Course ID:006998
eCommerce
Presents practical eCommerce strategies for publishing on the web including core connectivity, naming conventions, and web registration. Pre-requisite: CIT 1502 or Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

CIT 1504(1) Course ID:006999
Web Programming
Creates basic web content using HTML and client/server applications to publish to the web. Pre-requisite: CIT 1503 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

CIT 1551(1) Course ID:016715
Web Page Development Basics
Introduces web page design through the use of HTML and CSS. Emphasizes W3C web design and accessibility standards. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

CIT 1552(1) Course ID:016716
Web Page Development Formatting
Uses text and/or web editors to create web documents with various formats and page layouts, multimedia, tables, and forms. Emphasizes W3C web design and accessibility standards. Pre-requisite: CIT 1551 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

CIT 1553(1) Course ID:016717
Web Page Development Publishing
Implements web page design through the use of HTML and CSS. Emphasizes W3C web design and accessibility standards. Pre-requisite: CIT 1552 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours)
 Components: Lecture

CIT 1571(1) Course ID:016718
Fundamentals of Web Design
Introduces web design and design process. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 0.5 credit hours (7.5 contact hours) Laboratory: 0.5 credit hours (15 contact hours)
 Components: Laboratory, Lecture

CIT 1572(1) Course ID:016719
Website Design and Accessibility
Introduces web design with particular emphasis on design involving layout, navigation, and interactivity. Pre-requisite: CIT 1571 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours) Laboratory: 0.5 credits (15 contact hours)
 Components: Laboratory, Lecture

CIT 1573(1) Course ID:016720
Web Site Media and Production
Introduces web site production software. Pre-requisite: CIT 1752 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

CIT 1601(1) Course ID:007000
Basics
Introduces non-vendor specific technical level networking concepts. Pre-requisite OR Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

CIT 1602(1) Course ID:007001
Network Media and Technologies
Introduces non-vendor specific networking concepts such as the media, technology, protocols, and devices. Pre-requisite: CIT 1601 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

CIT 1603(1) Course ID:007002
Network Management
Presents the basics of how to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure. Pre-requisite: CIT 1602 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

CIT 1604(1) Course ID:007003
Network Tools and Security
Introduces tools used to troubleshoot and secure networks. Pre-requisite: CIT 1603 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

CIT 1611(0.3) Course ID:016318
Network Basics
Introduces students to basic concepts and components of a data network and the Internet, architecture, structure, functions, components, and models. Pre-requisite: MAT 065 OR Consent of Instructor. Pre-requisite OR Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours)
Components: Lecture

CIT 1651(0.3) Course ID:016319
Network Infrastructure
Introduces students to the network infrastructure and its components, including the Internet and the Internet, architecture, structure, functions, components, and models. Pre-requisite: MAT 065 OR Consent of Instructor. Pre-requisite OR Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours)
Components: Lecture
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Contact Hours</th>
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<tr>
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<td>Protocol Models</td>
<td>016319</td>
<td>1.0 (15 contact hours)</td>
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<tr>
<td>CIT 1613(0.6)</td>
<td>OSI Layer Operations</td>
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<td>CIT 1614(0.7)</td>
<td>Basic IP Addressing</td>
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<td>CIT 1615(1)</td>
<td>Network Connections &amp; Resources</td>
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<tr>
<td>CIT 1616(0.5)</td>
<td>Ethernet Networks</td>
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<td>CIT 1617(0.5)</td>
<td>Configuring Switches &amp; Routers</td>
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<td>CIT 1618(1)</td>
<td>Hardware and Operating Systems</td>
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<td>CIT 1619(0.6)</td>
<td>Network Troubleshooting</td>
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<td>CIT 1620(1)</td>
<td>Internet Communications</td>
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<td>Planning/Upgrading Networks</td>
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<td>Maintaining Networks</td>
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<td>CIT 1624(1)</td>
<td>Network Planning</td>
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<td>CIT 1631(1)</td>
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<td>CIT 1632(1)</td>
<td>Planning/Upgrading Networks</td>
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<td>CIT 1633(1)</td>
<td>Configuring Networks</td>
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<td>Maintaining Networks</td>
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<td>Access Control Lists</td>
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**Course Descriptions**

- **Protocol Models**: Describes the principles of simple LAN development including the OSI and TCP/IP models, the encapsulation process, and data flow between two hosts across a network. Pre-requisite: CIT 1612 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
- **OSI Layer Operations**: Describes the functions and responsibilities of the various OSI model layers pertaining to simple LANs. Pre-requisite: CIT 1612 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
- **Basic IP Addressing**: Introduces the format, function, and types of IP addressing used in simple LAN networks. Pre-requisite: CIT 1612 OR Consent of Instructor. Lecture: 0.7 credits (10.5 contact hours).
- **Network Connections & Resources**: Provides a basic overview of the Internet, network models, and ISP troubleshooting. Develops skills for computer technicians, network and help desk technicians. Pre-requisite: CIT 1623 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
CIT 1803(0.8) Course ID:007019
Network Security
Introduces basic network security concepts and methodologies including application, data, and host security, access control, and identity management. Pre-requisite: CIT 1802 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1804(0.6) Course ID:007020
Cryptography
Introduces cryptography, tools, and management of keys and certificates. Pre-requisite: CIT 1803 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1821(0.8) Course ID:007021
Security Defense and Protocols
Presents information and techniques required to secure computers and networks from attacks. Pre-requisite: CIT 1810 or consent of instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1823(0.6) Course ID:007023
Perimeter Testing
Performs methods and skills for conducting perimeter defense testing against attacks. Pre-requisite: CIT 1822 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1824(0.8) Course ID:007024
Intrusion Detection
Presents information and techniques for configuring intrusion-detection systems to secure computers and networks. Pre-requisite: CIT 1823 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1841(0.8) Course ID:007025
Ethical Hacking concepts
Presents concepts about ethical hacking. Pre-requisite: CIT 180 OR consent of instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1842(1) Course ID:007026
Computer/Network Attacks
Presents various types of attacks and exploits against computers and networks. Pre-requisite: CIT 1841 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1843(0.8) Course ID:007027
Malicious Software and Defense
Presents effective defensive techniques against real attacks. Pre-requisite: CIT 1842 OR Consent of instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1844(0.4) Course ID:007028
Incident Handling
Provides concepts and techniques for proper incident handling and documentation. Pre-requisite: CIT 1843 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

CIT 2091(1) Course ID:016595
Advanced Switching
Describes the operation and configuration of advanced switching technologies in networks, including STP, RSTP, and link aggregation. Pre-requisite: CIT 167 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2092(1) Course ID:016596
Single- and Multi-area OSPF
Covers advanced single-area OSPF and multi-area OSPF operation and configuration in both IPv4 and IPv6 networks. Pre-requisite: CIT 2091. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2093(1) Course ID:016597
EIGRP
Covers the operation and configuration of EIGRP in both IPv4 and IPv6 networks. Pre-requisite: CIT 2092 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2094(1) Course ID:016598
LAN/Wireless Design & IO
Covers the Cisco model for LAN design, operation and configuration of wireless LANs, and the basics of IOS licensing. Pre-requisite: CIT 2093 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2121(1.2) Course ID:016722
WANs, PPP, and Frame Relay
Covers WAN technologies and network services used in complex networks, including PPP and Frame Relay. Enables students to understand the selection criteria design principles of WAN technologies to meet network requirements. Pre-requisite: CIT 209 or Consent of Instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture

CIT 2122(1.2) 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) Course ID:016724
Securing Network Access
Covers network security tools including Access Control Lists (ACL) and Virtual Private Networks (VPN) in a complex network. Enables students to successfully configure network devices to implement security on networks. Pre-requisite: CIT 2092 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2124(0.6) Course ID:016725
Network Design
Covers WAN technologies (specifically the Cisco Enterprise Architecture model) for use in complex network design. Introduces emerging enterprise architecture models, such as Borderless Network, DataCenter Virtualization, and Collaboration architectures. Pre-requisite: CIT 2093 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2131(0.6) Course ID:007029
Windows OS Installation & Setup
Provides concepts and skills for installation, setup, and management of the current Microsoft Windows operating system. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 111 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2132(0.6) Course ID:007030
Network Connectivity
Provides concepts and skills for managing network connections, configuring IP settings, and network settings in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2131 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2133(0.6) Course ID:007031
Windows OS Resources
Provides concepts and skills for managing user accounts and access to resources in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2132 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2134(0.6) Course ID:007032
Mobility Configurations
Provides concepts and skills for configuring mobility options and security in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2133 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2135(0.6) Course ID:007033
Monitoring Windows Systems
Provides concepts and skills for managing updates and local performance, monitoring system performance and resource usage, configuring backups, system recovery, and troubleshooting the boot process in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2134 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2141(1) Course ID:007096
OS Server Concepts
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 111 (and CIT 160 or CIT 161) OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2142(1) Course ID:007097
Server Management Services
Presents an overview of network concepts such as DNS, Hyper-V, DHCP, and DFS. 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 2143(1) Course ID:007098
Server Role Policy
Presents skills and knowledge 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) Course ID:016337
Initial Server Deployment
Introduces skills necessary to install and configure Microsoft® Windows® Server. Covers initial network installation & configuration of a file server including update policy, file and folder access policies and security at an intermediate level. Pre-requisite: CIT 214 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2152(0.75) Course ID:016338
Administering the Server
Introduces skills to administer a Windows Server deployment. Covers server infrastructure monitoring, remote access configuration, and network policy implementation in an enterprise environment. Pre-requisite: CIT 2151 or Consent of instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
CIT 2153(0.75) Course ID:016339
Administering the Domain
Provides students with the knowledge and skills to design, develop, and evaluate databases and web servers including an integrated web database application in ecommerce and Web scripting. Covers creation of database-driven web site. Pre-requisite: CIT 2152 or Consent of instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2154(0.75) Course ID:016340
Advanced Administration Topics
Covers skills needed to administer a Windows Server Domain including setup and maintenance of Group Policy, infrastructure, advanced networking topics, and DNS deployments. Pre-requisite: CIT 2153 or Consent of instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2161(1) Course ID:016610
Advanced Active Directory
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server 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 2134. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2162(1) Course ID:016611
Server High Availability
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server environment, including Dynamic Access Control, network load balancing, and Failover Clustering. 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 2163(1) Course ID:016612
Disaster Recovery & AD 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 2161 OR Consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2171(0.8) Course ID:007034
Intro to UNIX/Linux
Introduces basic UNIX/Linux concepts. Pre-requisite: CIT 111 AND CIT 160 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 2172(0.8) Course ID:007035
Accounts, Resources, & Editors
Presents Unix/Linux commands to manage accounts, file systems and resources. Introduces editors for creating text files. Pre-requisite: CIT 2171 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 2173(1.4) Course ID:007036
File Processing and Lab
Introduces commands and scripts for file processing. Pre-requisite: CIT 2172 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Lecture

CIT 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. 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 2341(1) Course ID:016613
Advanced Word Processing
Uses advanced word processing programs. Includes working with complex documents creating and preparing data distribution on the web. Pre-requisite: CIT 130 or Instructor Consent. 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 in preparing and preparing data distribution on the web. Pre-requisite: CIT 2341. Lecture: 1 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. Pre-requisite: CIT 2343. Lecture: 0.25 credits (4 contact hours).
Components: Lecture

CIT 2344(0.25) Course ID:016616
Software Options
Uses advanced 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 VisualBasic 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
OO Programming & Code Apps
Provides students with an extensive overview of designing advanced computer applications using the VisualBasic 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 VisualBasic 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 2491(1) Course ID:016623
Advanced Java Components
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes advanced GUI components, input and output streams (file processing), and multithreading. Pre-requisite: CIT 149 or Consent of Instructor. Lecture: 1 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 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 webservers. Pre-requisite: (CIT 150 AND CIT 170 AND Approved Level I Programming Language) OR Consent instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2532(1) Course ID:016345
Databases and E-Commerce
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes input validation, error-handling, and file and database processing. Pre-requisite: CIT 2482 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Provides students with the knowledge and skills to design, develop, and implement Web client applications using the Visual Basic programming language. Includes ActiveX Objects and stored procedures. Pre-requisite: CIT 248 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2782(1) Course ID:016627
Active X Data Objects Provides students with the knowledge and skills to design, develop, and implement Web client applications using the Visual Basic programming language. Includes ActiveX Objects and stored procedures. Pre-requisite: CIT 2781 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2783(1) Course ID:016628
Security & Distributed Apps Provides students with the knowledge and skills to design, develop, and implement distributed Web client applications using the Visual Basic programming language. Includes distributed applications. Pre-requisite: CIT 2782 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2841(0.6) Course ID:007040
Computer Forensics Overview Provides a computer forensics overview and presents concepts about forensics investigations. Pre-requisite: CIT 180 or consent of instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

CIT 2842(0.4) Course ID:007041
Forensics Lab Setup Provides concepts and skills for setting up a computer forensics lab and data acquisition. Pre-requisite: CIT 2841 or Consent of Instructor. Lecture: 0.4 credits (6 contact hours).

Components: Lecture

CIT 2843(1) Course ID:007042
Digital Evidence Procurement Provides basic knowledge on methods and processes for collection and analyzing digital evidence. Pre-requisite: CIT 2842 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 2844(1) Course ID:007043
Investigations and Reporting Provides basic knowledge on methods and processes for investigations and reporting. Pre-requisite: CIT 2843 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 2881(1) Course ID:007103
Network Security Basics Identifies importance of computer ethics in relation to hacking and defending against computer and network threats. Pre-requisite: CIT 180 AND Level 1 Network Technologies Specialization Sequence OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 2882(1) Course ID:007104
Network Attacks & Lab Provides students with the knowledge and skills to defend against a variety of computer and network attacks. Focuses on the offensive techniques used to launch attacks. Pre-requisite: CIT 2881 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Lab: 0.5 credits (15 contact hours).

Components: Laboratory, Lecture

CIT 2883(1) Course ID:007105
Network Vulnerability & Lab Provides students with the knowledge and skills necessary to identify and proactively defend against computerand network attacks. Focuses on the defensive techniques required to defend computers and networks. Pre-requisite: CIT 2882 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Lab: 0.5 credits(15 contact hours).

Components: Laboratory, Lecture

CIT 2911(1) Course ID:007106
Project Management Concepts Introduces basic project management and systems analysis concepts. Pre-requisite: 36 hours of CIT courses OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 2912(0.8) Course ID:007107
Project Planning Applies acquired techniques, knowledge, and skills to successfully analyze, design, and plan a CIT project. Pre-requisite: CIT 2911 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).

Components: Lecture

CIT 2913(0.6) Course ID:007108
Project Implementation Applies acquired techniques, knowledge, and skills to successfully implement a CIT project. Pre-requisite: CIT 2912 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

CIT 2914(0.6) Course ID:007109
Project Evaluation Prepares students to develop and present key project management and system analysis deliverables in a portfolio including evaluation of a project. Enhances soft skills for employability. Pre-requisite: CIT 2913 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
CMM 120(3) Course ID:001816
Applied Machining I
Consists of intermediate level skills using machining machines and surface grinders. Includes the selection of grinding wheels. Pre-requisite: (CMM 110 and CMM 112) or (CMM 114) with a grade of C or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).

Components: Laboratory, Lecture
Attributes: Technical

CMM 122(3) Course ID:001817
Applied Machining II
Carries the student to higher levels in the operation of machine tools. Pre-requisite: (CMM 120 with a grade of C or greater) or Consent of Instructor. Lecture: 3.0 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

CMM 124(6) Course ID:001818
Applied Machining
Allows the student to begin performing skills that will combine the use of different types of machine and begin to give them a complete picture of the machining 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: 4.0 credits (165 contact hours).

Components: Lecture, Attributes: Technical

CMM 130(3) Course ID:001819
Manual Programming
Introduces the student to CNC codes and programming, set-up and operation of CNC machine tools. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).

Components: Laboratory, Lecture
Attributes: Technical

CMM 132(3) Course ID:001820
CAD/CAM/CNC
Introduces the student to CAD/CAM/CNC systems which includes CAM software. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).

Components: Laboratory, Lecture
Attributes: Technical

CMM 134(6) Course ID:001821
Manual Programming CAD/CAM/CNC
Introduces the student to CAD/CAM/CNC systems, CNC format, the Cartesian Coordinate System, CNC code and programming, set-up 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 setup operations used on a variety of machining 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 application 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 in-depth 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 Lab
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 thermosetting 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 presses, blanking dies, piercing dies, screw and dowel holes, punch and punch blocks, die life, bending dies, pilots, die block construction, stock strippers, stock guides, progressive dies, die strips and secondary operations of notch, trim, and shave. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CMM 155(2) Course ID:005527
Mold Machine Technology
Presents basic die making including die sets, punch presses, blanking dies, piercing dies, screw and dowel holes, punch and punch blocks, die life, bending dies, pilots, die block construction, stock strippers, stock guides, progressive dies, die strips and secondary operations of notch, trim, and shave. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CMM 156(3) Course ID:005355
Basic Bench and Machine Processes
Provides skills and knowledge needed to progress through the machine tool program. Includes safety and benchwork. Applies knowledge to a tool and die environment. Introduces the basic power equipment and machine tool used in a tool and die shop. Lab: 4.0 credits (120 contact hours).

Components: Laboratory
Attributes: Technical

CMM 160(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. 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 credits (165 contact hours).

Components: Lecture
Attributes: Technical

CMM 161(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 credits (165 contact hours).

Components: Lecture
Attributes: Technical

CMM 170(3) Course ID:005530
Advanced Machining Techniques for Manufacturing
Allows for construction of sinker electrodes in the production of die and mold forms. Includes wire-electrodischarge machines (edm) machining of die sections, punch retainers, stripper plates, punch forms and use of cylindrical grinder ID and OD as well as angular grinding on die and mold components. Pre-requisite: (CMM 216 with a grade of C or greater. Lecture: 2.0 credits (30 contact hours). Laboratory: 6.0 credits (180 contact hours).

Components: Laboratory, Lecture

CMM 171(4) Course ID:001825
Advanced Industrial Machining I
Permits the student to receive instruction in any area where advanced work is needed or an area where the student is interested. 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 172(6) Course ID:001826
Advanced Industrial Machining II
Advances students to a higher level of industrial standards by exposing them to additional tasks using acylindrical grinder. **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 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 172(2) Course ID:001827
Advanced Industrial Machining
Designed to allow for the construction of electrodes and the production of parts by the use of an ElectroDischarge Machine (EDM), cylindrical grinder, and other type of grinders. **National Standards require EDM and cylindrical grinder training. Programs lacking this equipment can only present theory. KCTCS is presently trying to acquire EDM and cylindrical grinders. 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 173(6) Course ID:001828
Advanced Industrial Machining
Designed to allow for the construction of electrodes and the production of parts by the use of an ElectroDischarge 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 212 or CMM 214 with a grade of C or greater) or Consent of Instructor. Laboratory: 4 credits (180 contact hours or 270 Clinical Contact).

Components: Laboratory
Attributes: Technical

CMM 174(6) Course ID:001829
Advanced Industrial Machining
Designed to allow for the construction of electrodes and the production of parts by the use of an ElectroDischarge 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 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
Introduction to 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 232(4) Course ID:006244
CNC Machines & Coding Practices
Introduces the student to conversational programming of CNC machine tools to include conversational setup andrun
options found on a CNC water jet machine. Pre-requisite: ((CMM 130 and CMM 132) or (CMM 134 or CMM 138) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours). (30:1Ratio 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 the CAM system to create and produce complex 3-D parts. Pre-requisite: ((CMM 130 and CMM 132) or (CMM 134 or CMM 138) with a grade of C or greater) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 4.0 credits (120 contact hours or 180 clinical contact).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CMM 244(6) Course ID:006245
Advance 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 230) with 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 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. Lecture: 1.0 credit (75 contact hours).

Components: Practicum
Attributes: Technical

CMM 299(1) Course ID:001831
Instructor Consent Required
Cooperative Education Program
Provides 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

CMM 2301(3) Course ID:005085
Instructor Consent Required
Introduction to Conversational Programming
Introduces students to conversational programming guidelines which will include program preparation, conversational input, and minor editing. Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Lecture

CMM 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: CMM 2301 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Lecture

CMM 2402(3) Course ID:005088
Advanced 3D Code Sequencing and Macro Systems
Introduces 3-D Programming using CAM systems to effect engineering changes that enhance productivity. Uses the CAM system to create and produce complex 3-D parts. Pre-requisite: ((CMM 130 and CMM 132) or (CMM 134 or CMM 138) with a grade of C or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Lecture

CMS 105(3) Course ID:000292
Multimedia Production and Applications I
Introduces students 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 120(1) Course ID:000293
Employability Skills Seminar
This course will focus on those skills necessary for job search such as self-assessment, resume writing, interview techniques, job search, job marketing strategies, and desired attributes for on-the-job success. Lecture: 1 hour. Offered on a Pass/Fail basis only.

Components: Lecture
Attributes: Other

CMS 141(1 - 4) Course ID:000294
Communications Practicum
Students work a minimum of two hours each week with the college radio station or TV station. Lecture: 1 credit hour. (Independent Study

Components: Practicum
Attributes: Other

CMS 142(1 - 4) Course ID:000295
Communications Practicum
Students work 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:006257
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 the 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

CMS 266(3) Course ID:006258
Basic Television Production
Introduces the principles and techniques of field and studio video production and provides practical application in general broadcast station operations. Lecture: 2.0 credits (30 contact hours); Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Other

COE Cooperative Education

COE 198(1 - 9) Course ID:005265
Instructor Consent Required
Practicum
Provides a planned and evaluated work experience related to the student’s educational objective for which the student receives academic credit but no financial remuneration. Practicum: 1-9 credits (45-405 contact hours) Pre-requisite: Consent of Instructor. Components: Practicum
Attributes: Technical

COE 199(3) Course ID:001203
Cooperative Education
Cooperative education is a planned and evaluated work experience related to the student’s 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

COE Communications

COM 101(3) Course ID:000310
Introduction to Communications
Introduces the processes 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: DC - Oral Communication, Course Also Offered in Modules

COM 184(1) Course ID:000313
Intercollegiate Debating
Preparation for and participation in intercollegiate debating. May be repeated to a maximum of two credits.

Components: Lecture
Attributes: Other
COM 205(3) Course ID:016093
Business and Professional Communication
Provides opportunity to examine and develop oral communication strategies appropriate to business and professional environments. Includes oral presentation - 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: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication, Course Also Offered in Modules

COM 254(3) Course ID:004552
Introduction to Intercultural Communication
Introduces intercultural communication with an emphasis on the relationships between culture and communication, social/psychological variables, verbal/nonverbal language systems, intercultural communication perceptions, and conflict resolution. Includes the practical application of contemporary issues in cross-cultural interaction, media representation, and daily social interactions to intercultural communication concepts. Pre-requisite or Co-requisite: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

COM 281(3) Course ID:000316
Communication in Small Group
Examines communication processes in small group situations including conflict, leadership, and decision making. Includes participation in group discussion and the development of skills in analyzing group performance. Pre-requisite Or Co-requisite: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication

COM 284(1) Course ID:002198
Intercollegiate Debate
Preparation for and participation in intercollegiate debating. May be repeated to a maximum of four credits.
Components: Lecture
Attributes: Other

COM 287(3) Course ID:000317
Persuasive Speaking
Examines the processes involved in attitude change, with emphasis on the preparation and delivery of persuasive messages. Pre-requisite: COM 181. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication

COM 288(3) Course ID:000318
Oral Interpretation
Analyzes prose and poetry for oral interpretation. Helpful to those who plan to teach in literature. Prerequisite Or Co-requisite: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

COM 293(9) Course ID:004257
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.
Components: Lecture
Attributes: Other

COM 1811(1) Course ID:015806
Public Speaking Essentials
Applies the basic principles and techniques in research, organization and delivery of speeches appropriate to the purpose, occasion, and audience. Pre-requisite: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

COM 1812(1) Course ID:015807
Basic Informative Speaking
Provides practical platform experience in developing speaking abilities to enable the student to communicate effectively in clear, coherent language appropriate to the presentation of informative speeches. Pre-requisite: COM 1811. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

COM 1813(1) Course ID:015808
Basic Persuasive Speaking
Provides practical platform experience in developing speaking abilities to enable the student to communicate effectively in clear, coherent language appropriate for the presentation of persuasive speeches. Pre-requisite: COM 1812. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

COM 2051(1) Course ID:016231
Communication Foundations
Demonstrates the role of oral communication in culturally diverse business and professional settings and develop an understanding of concept and perception/impression management. Pre-requisite: Current KCTCS placement scores for College level Reading and Writing, or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

COM 2052(1) Course ID:016232
Communication in A Job Search
Provides experience in communication developing communication skills for use in technology-based job exploration with an emphasis on ethics, interviewing, active listening, and verbal and nonverbal communication for use in culturally diverse business and professional settings. Pre-requisite: COM 2051. Lecture: 1 credit (15 contact hours).
Components: Lecture

COM 2053(1) Course ID:016233
Communication in Organizations
Provides experience in developing communication competence in leadership roles, conflict management, and the 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).
Components: Lecture

COM 2521(1) Course ID:000580
Looking In
Examines basic verbal and nonverbal concepts affecting the interpersonal process. Includes both verbal and nonverbal elements affecting communication between individuals in settings ranging from the family, peer groups, and work contexts. Pre-requisite Or Co-requisite: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

COM 2522(1) Course ID:005801
Communicating and Responding
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Topics include both verbal and nonverbal elements affecting communication between individuals in settings ranging from the family, peer groups, and work contexts. Pre-requisite: COM 2521. Lecture: 1 credit (15 contact hours).
Components: Lecture

COM 2523(1) Course ID:005802
Looking at Relational Dynamics
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Includes the basic needs in developing interpersonal relationship with emphasis on the types of relationships and the components involved in such relationships including compliance-gaining and conflict resolution. Pre-requisite: COM 2522. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

COS - Cosmetology

COS 105(14) Course ID:005534
Esthetician I
Covers the history of esthetics, today’s career opportunities, and professional image. Includes Kentucky Statutes and Regulations, analysis of skin types for facial products, massage techniques, and hair removal. Provides guidelines that prevent the contamination of products, implements, and equipment for the prevention of disease. Includes the study of structure, composition, and function of the skin. Pre-requisite: (High school diploma or equivalent) and admission to esthetician program. Lecture/Lab: 14.0 credit hours (360 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 114(14) Course ID:008123
Cosmetology I, 6-1
This course is designed to cultivate proper attitude and behavior patterns needed to create a successful Cosmetologist. Kentucky Statutes and Regulations, safety, bacteriology, sanitation, infection control, first aid treatment, structure and disorders of the nail are studied. An introduction to the basic fundamentals of hair, skin and nail care, hair styling and shaping, manicures and pedicures, chemical and thermal services, and wigs. The student in developing manipulative skills and practicing procedures utilizes mannequins and classmates. After 300 hours student begin to apply procedures on clients under the direct supervision of the instructor.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 116(14) Course ID:001214
Cosmetology II, 6-2
A study of basic chemistry with emphasis placed on the physical and chemical properties of cosmetic materials. Electricity and light therapy are discussed and an in-depth study of anatomical structures affected by cosmeticological services including disorders of the skin, scalp, hair, and nails. The instructor gives the student progressively more difficult assignments with close supervision.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 135(1 - 8) Course ID:001223
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).
Components: Laboratory, Lecture
Attributes: Technical

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COS 150(13) Course ID: 001224
Basic Nail Tech
Provides knowledge of the art and science of nail technology including the rules and regulations of the State Board of Cosmetology as they apply to the salon. Includes bacteriology and infection control through the practice of sanitation procedures, the study of the cells, structure of the hand, arm, nail and their disease conditions, and the study of beauty salon management including the practice of interacting with clients, coworkers, and supervisors. (Students practice on classmates and progress to work on clients.) Lecture: 5 credits (75 contact hours). Laboratory: 8 credits (240 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 217(20) Course ID: 015568
Teaching II
Expands teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates advanced teaching methods of theory, media use, and testing methods. Develops and applies methods used to teach the practical application of skills. Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Hairdressers and Cosmetologist's instructor examination. Pre-requisite: COS 216. Lecture: 6.0 credits (90 contact hours); Lab: 14.0 contacts (420 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 205(14) Course ID: 005540
Esthetician II
Covers organic/inorganic chemistry and cosmetic ingredients. Focuses on facial enhancements through the use of make-up artistry and application including hair removal procedures and applications. Includes the study of skin conditions, disorders and diseases, and those treatable by the esthetician. Explains treatments related to skin and nail disorders. Pre-requisite: COS 105 or Consent of Instructor. Lecture/Lab: 14.0 credit hours (360 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 219(13) Course ID: 001233
Student Teaching I
Introduces teaching methods used in training cosmetology and nail technology students. Inclusive of theory, class methods of lecture, media use and testing methods. Introduces methods used to teach the practical application of skills. Pre-requisite: Cosmetologist's License; One year work experience, apprentice cosmetologists instructor's license. Lecture: 3 credits (45 contact hours). Laboratory: 10 credits (300 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 220(12) Course ID: 001216
Cosmetology IV, 6-4
This course is designed for a total review of the cosmetology curriculum. A comprehensive written and practical exam is given in preparation for the State Board Licensure exam. Students implement their own judgement of procedures and solutions to be used on clients with supervision.
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

COS 255(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 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: 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 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 (90 contact hours).
Components: Laboratory, Lecture
COS 2182(3) Course ID:005011
Anatomy for Cosmetology II
Study of the interaction of all body systems and the maintenance of homeostasis. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture

COS 2183(3) Course ID:005012
Salon Management
The study and application of all phases of salon management. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture

COS 2184(1) Course ID:005013
Intermediate Chemical Services Lab
The study of the interaction of all the body systems in maintaining homeostasis. Application of these studies in cosmetology services. Pre-requisite: (COS 1161 and COS 1162 and COS 1163 and COS 1164 and COS 1165 and COS 1166 and COS 1167 and COS 1168) or COS 116 with a grade of C or greater). Laboratory: 1 credit (45 contact hours).
Components: Laboratory

COS 2185(1) Course ID:005014
Hair Enhancements
Study of artificial hair. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 2186(1) Course ID:005015
Client Services Lab
Provides the student with the opportunity to demonstrate client services. Emphasis is on communication and positive public relation techniques. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

COS 2187(1) Course ID:005016
Intermediate Hair Shaping
Hair shaping techniques for the intermediate practitioner. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 2188(1) Course ID:005017
Cosmetology Trends and Issues
Trends and issues of cosmetology are covered. Lecture: 1 credit (15 contact hours).
Components: Lecture

CPR Cardiopulmonary Resuscitation

CPR 100(1) Course ID:001239
CPR for Healthcare Professionals
Cardiopulmonary resuscitation (Adult/Infant/Child) is a course designed to teach current emergency techniques relative to cardiac and/or respiratory arrest, as put forth by the American Heart Association, National Safety Council or American Red Cross. The American Heart Association, National Safety Council or American Red Cross standardized course qualifies a student for certification of cardiopulmonary resuscitation.
Components: Lecture

CRA Building Controls Technician
CRA 230(5) Course ID:016091
Building Controls I
Develops techniques for servicing, troubleshooting, and performing necessary maintenance on modern building control systems. Emphasizes electrical and mechanical safety. Covers equipment used in building control systems. Pre-requisite: ACR 100 and (ACR 102 or comparable electrical course) and 10 semester credit hours of Building Controls Technician technical electives or consent of instructor. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

CRA 232(5) Course ID:016092
Building Controls II
Develops techniques for configuring, tuning and troubleshooting a networked building control system. Covers networked field equipment and central computer-controlled building control systems. Pre-requisite: CRA 230 or consent of instructor. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

CRJ Criminal Justice
CRJ 100(3) Course ID:004191
Introduction to Criminal Justice
Provides an introduction to the philosophical and historical background of agencies of the criminal justice systems, processes, purposes and functions. Includes an evaluation of the criminal justice system today, including trends and career orientation. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 102(3) Course ID:004192
Introduction to Corrections
Provides an introduction to the development of correctional systems, and the processes, procedures, and issues of current correctional systems, both juvenile and adult. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC090). Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 103(3) Course ID:004193
Introduction to Firearm
Provides a working knowledge of the use, care, and safety of firearms. The course is of nomenclature designate it will be at the discretion of each individual college whether live ammunition will be utilized by 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

CRJ 104(3) Course ID:004194
Advanced Firearms and Less Than Lethal Weapons
Provides an advanced working knowledge of the use, care, safety, and legal application of firearms and less lethal weapons. Includes live fire with the use of pistol, shotgun/ rifle, and less than lethal weapons. Pre-requisite: CRJ 107 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 2.0 credits (30 contact hours); Lab: 2.0 credits (69 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CRJ 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

CRJ 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 criminological in crime detection and prosecution. Pre-requisite: (Current placement scores for RDG 30 or higher 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 202(3) Course ID:004196
Issues and Ethics in Criminal Justice
Provides an understanding of the issues and ethical dilemmas facing 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

CRJ 203(3) Course ID:004197
Community Corrections: Probation & 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 RDG30 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 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

CRJ 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

CRJ 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

CRJ 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). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 212(3) Course ID:004202
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). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 213(3) Course ID:004203
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). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 214(3) Course ID:004204
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). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
CRJ 215(3) Course ID:004202
Introduction to Law Enforcement
Provides an introduction to the study of law enforcement. Introduces the historical developments of law enforcement, police operations and programs. Pre-requisite: (Current placement scores for RDG 30 or higher 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 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 for the administrative laws. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

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) AND CRJ 100 or CRJ 215. Lab: 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 counteracting 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 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. Includes a historical perspective, as well as applicable case law, in the areas of corrections operations, practices, and procedures. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 240(3) Course ID:006102
Introduction to Corporate & Industrial Security
Involves research, study, and discussion of current and emerging 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
Involves 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 271(3) Course ID:0086804
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 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) AND Sophomore Standing and completion of at least 12 semester hours of Criminal Justice coursework. 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 298(3) Course ID:016629
Criminal Psychology
Provides a basic understanding of the psychological theories explaining criminal behavior. Includes topics regarding the effects of the brain’s structural and functional processes on behavior, evidence based psychological techniques for treating criminal behavior, behavioral profiling, basic overview of common mental health 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
CRT 299(1 - 8) 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: Consent of Instructor. Independent Study: 2.0 credits (150 contact hours).
Components: Independent Study
Attributes: Technical

CRT 100(2) Course ID:000926
Introduction to Collision Repair
Introduces the student to safety, sanding, grinding, pulling, roughing and filling; the use of tools and equipment; and preparing and priming automotive panels through lectures and demonstration. Lecture: 2.0 (30 contact hours).
Components: Lecture
Attributes: Technical

CRT 130(6) Course ID:000929
Non-Structural Analysis and Damage Repair
Provides instruction in the replacement and alignment of bolts on automotive parts such as doors, hood, and fenders; as well as instruction on the repair and replacement of non-structural weld-on automotive panels by aligning, welding, cutting and drilling through demonstrations and lectures. Includes instruction on how to repair plastic, fiberglass, SMC and flexible automotive parts. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CRT 131(6) Course ID:002345
Non-Structural Analysis and Damage Repair Lab
Provides practical experience in the replacement and alignment of bolts on automotive parts such as doors, hood, and fenders; as well as instruction on the repair and replacement of non-structural weld-on automotive panels by aligning, welding, cutting and drilling. Includes instruction on how to repair plastic, fiberglass, SMC and flexible automotive parts. Requires skills that are most effectively taught and practiced on live work; the exact content will be influenced by the live work available. Pre-requisite or Co-requisite: CRT 130. Lab: 6.0 credits (180 - 270 contact hours).
Components: Laboratory
Attributes: Technical

CRT 150(6) Course ID:000931
Painting and Refinishing
Provides instruction in the use of lacquer, acrylic enamel and base coat/clear coat refinishing products, masking procedures, preparations and paint problems. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CRT 151(6) Course ID:000932
Painting and Refinishing Lab
Provides instruction in the use of lacquer, acrylic enamel and base coat/clear coat refinishing products, masking procedures, preparations and paint problems. (The auto/and/or autos being used for live work will determine exact content.) Pre-requisite Or Co-requisite: CRT 150. Lab: 6.0 credits (180 -270 contact hours).
Components: Laboratory
Attributes: Technical

CRT 198(1 - 8) Course ID:000934
Instructor Consent Required Practicum
Provides supervised on-the-job work experience related to the students' educational objectives. (Students participating in the practicum do not receive compensation. May be taken for 1 -8 credits.) Pre-requisite: Consent of Instructor. Practicum: 1.0 - 8.0 credit hours.
Components: Practicum
Attributes: Technical

CRT 199(1 - 8) Course ID:000933
Instructor Consent Required Cooperative Education
Provides supervised on-the-job work experience related to the students' educational objectives. (Students participating in the Co-op Education program receive compensation for their work. May be taken for 1 - 8 credits.) Pre-requisite: Consent of Instructor. Co-Op: 1.0 - 8.0 credit hours.
Components: Co-Op
Attributes: Technical

CRT 230(6) Course ID:000936
Structural Analysis and Damage Repair
Presents instruction on the analysis, repair and replacement of structural panels on unibody automobiles and body and frame alignment on unibody and frame cars. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CRT 231(6) Course ID:000937
Structural Analysis and Damage Repair Lab
Presents instruction on the analysis, repair and replacement of structural panels on unibody automobiles and body and frame alignment on unibody and frame cars. Pre-requisite or Co-requisite: CRT 230. Lab: 6.0 credits (180 -270 contact hours).
Components: Laboratory
Attributes: Technical

CRT 250(6) Course ID:000938
Mechanical and Electrical Components
Provides instruction in the diagnosis, repair, and/or replacement of suspension, steering, electrical, brake, drive train, fuel, exhaust, and restraint systems. Includes theories and concepts of heating and air conditioning systems. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CRT 251(6) Course ID:000939
Mechanical and Electrical Components Lab
Provides practical experience in the diagnosis, repair, and/or replacement of suspension, steering, electrical, brake, drive train, and fuel, exhaust, and restraint systems. Includes demonstration of theories and concepts of heating and air conditioning systems. Involves live work on automobiles. Pre-requisite or Co-requisite: CRT 250. Lab: 6.0 credits (180 - 270 contact hours).
Components: Laboratory
Attributes: Technical

CRT 291(1) Course ID:000940
Special Projects I
Designed for students to satisfactorily complete collision repair tasks or to enhance their skills in the occupational area. Pre-requisite: Consent of Instructor. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

CRT 293(2) Course ID:000941
Special Projects II
Designed for students to satisfactorily complete collision repair tasks or to enhance their skills in the occupational area. Pre-requisite: Consent of Instructor. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

CRT 295(3) Course ID:000942
Special Projects III
Designed for students to satisfactorily complete collision repair tasks or to enhance their skills in the occupational area. Pre-requisite: Consent of Instructor. Lab: 3.0 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

CRT 298(2) Course ID:000943
Instructor Consent Required Advanced Practicum
Provides supervised on-the-job work experience related to the students' educational objectives. (Students participating in the practicum do not receive compensation.) Pre-requisite: Consent of Instructor. Independent Study: 2.0 credits (150 contact hours).
Components: Independent Study
Attributes: Technical

CRT 299(2) Course ID:000944
Instructor Consent Required Advanced Cooperative Education
Provides supervised on-the-job work experience related to the students educational objectives. (Students participating in the Co-op Education program receive compensation for their work.) Pre-requisite: Consent of Instructor. Co-Op: 2.0 credits (150 contact hours).
Components: Co-Op
Attributes: Technical

CS 115(3) Course ID:000321
Introduction to Computer Programming
This course teaches introductory skills in computer programming using a high-level computer programming language. There is an emphasis on both the principles and practice of computer programming. Covers principles of problem solving by computer and requires completion of a number of programming assignments. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

CS 215(4) Course ID:007198
Introduction to Program Design, Abstraction, and Problem Solving
The course covers introductory object-oriented problem solving, design, and programming engineering. Fundamentals elements of data structures and algorithm design will be addressed. An equally balanced effort will be devoted to the three main threads in the course: concepts, programming language skills, and rudiments of object-oriented programming and software engineering. Pre-requisites: CS 115, 221 or equivalent. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

CS 216(3) Course ID:000323
Introduction to Software Engineering
Software engineering topics include: life cycles, metrics, requirements specifications, design methodologies, validation and verification, testing, reliability and project planning. Implementation of large programming projects using object-oriented design techniques and software tools in a modern development environment will be stressed. Pre-requisites: CS 215. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

CS 221(2) Course ID:000325
First Course in Computer Science for Engineers
Characteristics of a procedure-oriented language; description of a computer as to internal structure and representation of information; introduction to algorithms. Emphasis will be placed on the solution of characteristic problems arising in engineering. Pre-requisite: Not open for students who have received credit for CS 215. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

CS 261(3) Course ID:016137
Social Networks: Methods and Tools
The complex connectedness of the modern society is a multifaceted phenomenon resulting from the growing density of the human population, the advent of fast...
global mass transportation infrastructure, the emergence of global companies and markets, and spurred by the Internet and its applications such as the Web, Facebook and Twitter. In this course, we learn about graph theory, game theory and computational tools required to model and analyze social networks, matching markets, web search, network externalities, tipping points, information cascades, epidemics, small worlds, and voting schemes.

The course requires no programming background and has no university-level pre-requisites. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (University of Kentucky)

CUL 270(3) Course ID:010097 Systems Programming

This course provides an introduction to computer systems and explores computer architecture, operating systems, and networks from a programmer’s perspective. The course also introduces advanced programming and debugging tools. Topics include hardware instruction sets, machine language and C language programmer interfaces, linking/loading, operating systems (process management, scheduling, memory management, interprocess communication, and file systems), network programming (socket programming and web protocols), and common security attacks and solutions. Pre-requisites: EE280 and CS216. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (University of Kentucky)

Discrete Mathematics


Components: Lecture
Attributes: University Course (University of Kentucky)

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 125(2) Course ID:004212 Sanitation and Safety

Develops an understanding of the basic principles of sanitation and safety and to be able to apply them in the food service operations. Focuses on personal hygiene habits and food handling practices that protect the health of the consumer. Lecture 2 credits (30 contact hours). 

Components: Lecture Attributes: Technical

CUL 211(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 Co-requisite: CUL 100 and CUL 200 or consent of instructor.

Components: Laboratory, Lecture Attributes: Technical

CUL 215(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 chouxpauste, frozen desserts, and cream, custards, and related sauces. Emphasis will be placed on nutritional aspects of baked products and finishing 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 ture: 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 nutrition needs throughout the life cycle through menu planning and preparation for specialty diets. Lecture: 3 credits (45 contact hours).

Components: 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 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’oeuvres, 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.

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: Amathematics 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 Culinary Industry Trends

Focuses on 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 290(4) Course ID:004223 Culinary Arts Practicum Experience

Practicums enhance 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 292(3 - 6) Course ID:004224 Culinary Arts Cooperative Education Experience

Enhances the student’s transition from class to the workplace by providing a paid work experience in a setting that utilizes the skills required to achieve the student’s occupational goal. Pre-requisite: Consent of instructor. Practicum: 2.0 - 3.0 credits (120-180 contact hours).

Components: Practicum Attributes: Technical
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:016349
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:016350
Food Service Sanitation/Safety
Develops an understanding of the basic principles of sanitation and safety and applies them in the foodservice operations. Pre-requisite: CUL 1251. 
Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 2301(1) Course ID:016351
Food and Nutrient Sources
Describes the characteristics, functions, and food sources of the major nutrients. 
Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 2302(1) Course ID:016352
Menu Planning and Preparation
Describes how to maximize nutrient retention in food preparation and storage. Pre-requisite: CUL 2301. 
Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 2303(1) Course ID:016353
Menus for Specialty Diets
Applies the principles of nutrient needs throughout the life cycle through menu planning and preparation for specialty diets. 
Pre-requisite: CUL 2302. Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 2801(1) Course ID:016354
Food Service Operating Cost
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the area of cost. Pre-requisite: A mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. 
Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 2802(1) Course ID:016355
Food Service Control Costs
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the area of control. Pre-requisite: CUL 2801. 
Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 2803(1) Course ID:016356
Food Service Financial Aspects
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the areas of purchasing and receiving. Pre-requisite: CUL 2802. 
Lecture: 1 credit (15 contact hours).
Components: Lecture

DAH 101(2) Course ID:000330
Infection Control & Medical Emergencies
Examines current regulatory mandates, specific step-by-step procedures related to infection control, management of hazardous materials in the dental office, management of emergency situations and basic concepts of pharmacology. Pre-requisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 1.5 credits (22.5 contact hours), Lab: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAH 121(3) Course ID:000333
Dental Sciences
Examines oral histology and embryology, head and neck anatomy, and tooth morphology as applicable to the practice of dental assisting and dental hygiene. Pre-requisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DAH 124(2) Course ID:000335
Materials In Dentistry
Examines the physical and chemical properties of dental materials with an emphasis on composition and application. 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 131(3) Course ID:004437
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, DAH 125, and DAS 130; Dental Hygiene: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DGH 120. 
Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DAH 135(2) Course ID:000334
Oral Radiology
Examines theory and clinical practice of radiographic methods. Presents history and development of x-radiation; properties and uses of x-radiation; radiation hygiene; exposing, processing and mounting intraoral and extraoral films; and identification of radiographic anatomic landmarks. Pre-requisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 1.5 credits (22.5 contact hours), Lab: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAH 235(1) Course ID:000336
Practice Management
Examines legal, ethical, and managerial aspects of the dental practice. Pre-requisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 135, DAH 124, DAH 125 and DAH 130; Dental Hygiene: Minimum grade of “C” in DGH 220 and DGH 226. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DAH 125(6) Course ID:015651
Dental Assisting I
Introduces the profession of dental assisting, history of dentistry, chairside dental assisting, dental equipment, operative dentistry and dental specialties. Emphasizes essential dental assisting skills to prepare the student for clinical setting. Pre-requisite: Admission into the Dental Assisting Integrated Program. Lecture: 2.0 (30 contact hours), Lab: 4.0 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAH 130(2) Course ID:006812
Seminar I
Emphasizes leadership, management, clinical decision-making, judgment skills and professional values to facilitate the transition of the student to a professional dental assistant. Provides the opportunity for the application of critical thinking skills in the care of a diverse patient population in the dental setting. Pre-requisite: Admission into the Dental Assisting Integrated Program. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAS 225(2) Course ID:015652
Dental Assisting II
Continues DAS 120 concepts. Introduces student to remaining dental specialties and expanded dental assisting functions. Pre-requisite: Dental Assisting: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, DAS 125, and DAS 130. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAS 230(1) Course ID:006813
Seminar II
Provides the opportunity to discuss clinical experiences and prepare to sit for the Dental Assisting National Board (DANB). Provides students the opportunity to further develop professional growth plan. Pre-requisite: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, DAS 125, and DAS 130. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAS 245(2) Course ID:015653
Preventive Dentistry
Introduces dental biofilm and its role in dental disease. Emphasizes the role nutrition plays regarding disease initiation and progression and the methods and preventive agents utilized by the auxiliary to prevent oral disease. Pre-requisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, DAS 125, and DAS 130. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAS 250(5) Course ID:015654
Clinical Externship
Apply and practice principles and skills acquired in the areas of chairside assisting, operative procedures, specialty procedures, laboratory procedures, business office procedures and dental radiology. Consists of observation and practice in a dental office setting with emphasis on chairside activities. Pre-requisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, DAS 125, and DAS 130. Practicum: 5.0 credits (225 contact hours).
Components: Practicum
Attributes: Technical

DGD 131(3) Course ID:007066
3D Texturing and Lighting I
Introduces the techniques for creating textures and lighting for 3D games and simulations. Pre-requisite: Computer Literacy course or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DGD 132(3) Course ID:005474
Introduction to 3D Graphics
Emphasizes creating 3D graphics using one or more state-of-the-art software packages. Pre-requisite: Computer Literacy course or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DGD 231(3) Course ID:007067
3D Texturing and Lighting II
Introduces advanced texturing and lighting techniques to enhance depth perception and realism within 3D environments. Pre-requisite: DGD 131 and DGD 132; or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
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); Clinical: 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

DHD 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

DHD 134(2) Course ID:0006811
Nutrition
Presents basic principles of nutrition with an 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

DHD 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

DHD 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

DHD 222(1) Course ID:0004778
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 DADH131, DHG 130, DHG 132, DHG 134, DHG 136, and current enrollment in the Dental Hygiene Integrated Program. Lecture: 1.0 credit (15 contact hours); Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

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. BIOL 137 and BIO 139 or equivalent, with a grade of "C" or better. Lecture: 2.5 credits (37.5 contact hours); Clinical: 1.5 hours (180 contact hours).

Components: Clinical, Lecture
Attributes: Technical

DHP 121(3) Course ID:004860
Oral Biology I
Includes oral histology and embryology, regional head and neck anatomy, and dental anatomy applicable to the practice of dental hygiene. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer literacy; or equivalency; and CPR certification. BIOL 137 and BIO 139 or equivalent, with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours); Laboratory: 1.0 credit (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

DHP 122(2) Course ID:000632
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. BIOL 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 130(3) Course ID:0004861
Dental Hygiene II
Continues DHP 120 which prepares the student to provide treatment that includes preventative and therapeutic procedures to promote and maintain oral health and assist the patient in achieving oral health goals. Pre-requisite: [DHP 120 and DHP 121 and DHP 122 and (BIO 226 or equivalent)] with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours); Clinical: 1.0 credit (120 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

DHP 131(5) Course ID:0004862
Oral Biology II
Covers the disciplines of general pathology, oral pathology, pharmacology, and therapeutics as related to dental hygiene care. Pre-requisite: [DHP 120 and DHP 121 and DHP 122 and (BIO 226 or equivalent)] with a grade of "C" or better. Lecture: 4.5 credits (67.5 contact hours); Lab: 0.5 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

DHP 135(2) Course ID:0004863
Dental Radiology
Presents the theory and clinical practice of oral radiographic methods. Includes history and development of x-rays; properties and uses of x-rays; radiation hygiene; exposing; processing and mounting intraoral and extraoral radiographs; identification of radiographic anatomical landmarks; and advancements in computer imaging technology in dental radiology. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer literacy or equivalency; and CPR certification. BIOL 137 and BIO 139 or equivalent, with a grade of "C" or better. Lecture: 2.5 credits (37.5 contact hours); Laboratory: 0.5 credit (30 contact hours).

Components: Laboratory
Attributes: Technical
DHP 136(2) Course ID:004864
Periodontics I
Focuses on the clinical, histological and radiographic
differences between healthy and unhealthy periodontal
tissues. Includes etiology, risk factor assessment,
pathogens and classification of periodontal diseases.
Pre-requisite: [DHP 120 and DHP 121 and DHP 122]
and (BIO 226 or equivalent)] with a grade of "C" or better.
Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

DHP 220(3) Course ID:004865
Dental Hygiene III
Emphasizes the continued treatment of clinical patients.
Prepares student for treatment and management of dental
patients with special needs and emphasizes appropriate
changes in dental treatment in response to patient’s
medical condition. Pre-requisite: (DHP 130 and DHP 131
and DHP 135 and DHP 136) all with a grade of "C" or
better. Clinical: 2.0 credits (240 contact hours). Discussion:
1.0 credit (15 contact hours).
Components: Clinical, Discussion Attributes: Technical

DHP 221(3) Course ID:004866
Dental Materials
Introduces the physical and chemical properties of dental
materials and their application. Pre-requisite: (DHP 130
and DHP 131 and DHP 135 and DHP 136) with a grade of "C"
or better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

DHP 222(2) Course ID:005040
Special Needs Patients
Focuses on the specific oral health care needs of persons
with a variety of medical, disabling or mental conditions
and provides for discussion of innovative approaches to
serving populations with special oral health care needs.
Emphasizes the social and psychological considerations
and treatment modifications. Pre-requisite: (DHP 130 and DHP
131 and DHP 135 and DHP 136) with a grade of “C”
or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

DHP 224(3) Course ID:004867
Periodontics II
Provides for the continuation and expansion of the content
of Periodontics for the Dental Hygienist I.
Emphasizes the role of the dental hygienist in the
recognition of systematic implications as related to
periodontal disease processes and current advancements in
the management of patients with periodontal disease.
Introduces current surgical therapies with discussion of
supportive periodontal therapy. Pre-requisite: (DHP 130 and
DHP 131 and DHP 135 and DHP 136) with a grade of “C”
or better. Lecture: 1.5 credits (22.5 contact hours). Laboratory:
0.5 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DHP 229(2) Course ID:004850
Local Anesthesia
Includes common oral local anesthesia injection techniques
and the related background information are addressed in
this course. Subjects include: anatomic considerations,
armamentarium, basic injection techniques, recordkeeping
neurophysiology, related pharmacology, patient evaluation,
comparisons and contraindications. The pharmacology,
administration and contraindications of Nitrous Oxide are
also included. This elective course satisfies the Kentucky
State Dental Practice Act regarding delegation of block and
infiltration anesthesia and nitrous oxide analgesia to dental
hygienists. Pre-requisite: [DHP 130 and DHP 135 and
DHP 136] with a grade of “C” or better. Lecture: 1.25 credits
(18.75 contact hours). Lab: 0.75 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DHP 230(3) Course ID:004868
Dental Hygiene IV
Focuses on the mastery of all dental hygiene clinical skills
utilized in treating all types of patients. Requires the completion
and presentation during seminar time of a case study on a clinical patient.
Pre-requisite: (DHP 220 and DHP 222 and DHP 224 and
DHP 226) with a grade of “C” or better. 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
Covers the legal, ethical, and managerial aspects of dental
hygiene practice. Pre-requisite: (DHP 220 and DHP 222
and DHP 224 and DHP 226) with a grade of “C” or better.
Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

DHP 238(3) Course ID:004870
Community Dental Health
Introduces basic concepts in assessing and surveying
community dental health needs. Includes discussion
of current trends, and issues, preventive dental health services.
Covers concepts related to reading and interpreting scientific literature.
Requires students to develop and present a community
dental health project and a scientific tabletop presentation.
Pre-requisite: (DHP 220 and DHP 222 and DHP 224 and
DHP 226). Lecture: 2.0 credits (30 contact hours). Lab:
1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DIT 103(2) Course ID:001273
Diesel Technology
Covers the inspection, diagnosis and repair strategies
Lecture: 3 credits (45 contact hours). Lecture: 1.0 credit (15 contact hours). Co-requisite: DIT 112.
Components: Laboratory Attributes: Technical

DIT 104(3) Course ID:001274
Introduction to Diesel Engines
Covers the hands-on concepts covered in DIT 110.
Components: Lecture Attributes: Technical

DIT 105(1) Course ID:000681
Mechanical Principles
Provides opportunities to practice hands on skills of
measuring with precision measurement tools such
as micrometers, dial indicator and caliper. This class also
provides opportunities for the student to practical implementation
and testing. Proper rigging techniques are illustrated and
practiced to ensure that the student will know how to safely
lift large and awkward items. Laboratory: 1.0 credit (45
contact hours).
Components: Laboratory Attributes: Technical

DIT 110(3) Course ID:001275
Introduction to Diesel Engines Lab
Includes the hands-on concepts covered in DIT 110.
Covers the inspection, diagnosis and repair strategies
of internal combustion diesel engines. Pre-requisite: DIT 110. Laboratory: 2 credits (90 contact hours).
Components: Laboratory Attributes: Technical

DIT 111(2) Course ID:001277
Diesel Engine Repair
Includes how to take a disassembled engine and evaluate
the condition of each component. Includes the identification
and use of function of each component of the engine.
Covers cylinder block and components, cylinder heads and
valve train components, cylinder heads and valve train
components, and engine lubrication systems. Pre-requisite: DIT 110 or ADX 150. Co-requisite: DIT 111. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

DIT 112(3) Course ID:001278
Introduction to Maintenance Welding
Covers the inspection, diagnosis and repair strategies
of internal combustion late model diesel engines. Pre-
requisite: DIT 111 or ADX 151. Co-requisite: DIT 112.
Lecture: 2 credits (90 contact hours).
Components: Laboratory Attributes: Technical

DIT 120(3) Course ID:001279
Introduction to Maintenance Welding Lab
Provides laboratory experiences in which students acquire
the manipulative skills needed to weld surface, fillet, and
groove welds in flat and horizontal positions. The students
will perform oxy fuel cutting operations. Lab: 3.0 credits
(135 contact hours).
Components: Laboratory Attributes: Technical

DIT 121(3) Course ID:001280
Introduction to Maintenance Welding II
Covers the inspection, diagnosis and repair strategies
of internal combustion late model diesel engines. Pre-
requisite: DIT 111 or ADX 151. Co-requisite: DIT 112.
Lecture: 2 credits (90 contact hours).
Components: Laboratory Attributes: Technical

DIT 122(3) Course ID:001281
Undercarriage Lab
Covers the theory and operation of undercarriage systems
and their components. These components include
endless track, roller track, roller frames, idlers, roller
supports, and mainframes. Co-requisite: DIT 123.
Components: Lecture Attributes: Technical

DIT 123(3) Course ID:001282
Undercarriage Lab
Provides opportunities to troubleshoot and repair some
parts of undercarriage systems and their components. These components include endless track, roller track, roller frames, idlers, roller supports, and mainframes.
Lab: 3.0 credits (135 contact hours).
Components: Laboratory Attributes: Technical

DIT 140(3) Course ID:001283
Hydraulics Lab
Covers the theory and operation of a hydraulic system
including pumps, filters, reservoirs, valves and actuators.
Components: Lecture Attributes: Technical

DIT 141(2) Course ID:001284
Hydraulics Lab
Includes the hands-on concepts covered in DIT 140.
Covers the inspection, diagnosis and repair strategies
of hydraulic systems. Co-requisite: DIT 140. Laboratory: 2
DIT 150(3) Course ID:001284
Power Trains
Covers the theory and operation of the power train systems on medium and heavy duty trucks. Covers the diagnosis and repair techniques of the power train system. Co-requisite: DIT 151. Lecture: 3 credits (45 contact hours).

Components: Laboratory Attributes: Technical

DIT 151(2) Course ID:001285
Power Trains Lab
Provides for practical application of concepts taught in DIT 150. Covers topics covered that will include clutches, transmission, and drive axles on medium and heavy duty trucks. Co-requisite: DIT 150. Laboratory: 2 credits (90 contact hours).

Components: Laboratory Attributes: Technical

DIT 152(3) Course ID:001286
Powertrain for Construction Equipment
Introduces students to main components of digital literacy including computer fundamentals, key applications, and living online. This course closely mirrors the KCTCS Digital Literacy Standards. Lecture: 3.0 credits (45 contact hours).

Components: Laboratory Attributes: Technical

DIT 160(3) Course ID:001288
Steering and Suspension
Covers the theory, operation and diagnosis of the steering and suspension system on medium and heavy duty trucks. Co-requisite: DIT 161. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

DIT 161(2) Course ID:001289
Steering and Suspension Lab
Provides for practical application of concepts taught in DIT 160. Introduces skills necessary in the diagnosis and repair of truck suspension systems, wheel alignment, and wheel balancing. Pre-requisite: DIT 160. Laboratory: 2 credits (90 contact hours).

Components: Laboratory Attributes: Technical

DIT 180(3) Course ID:001290
Brakes
Covers the basic principles of brake systems including the battery, starter, alternator, lighting and accessories. Co-requisite: DIT 191. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

DIT 181(2) Course ID:001291
Brakes Lab
Provides hands on activities related to the concepts covered in DIT 180. Includes the inspection, diagnosis, and performing repairs on air powered and hydraulic powered braking systems found on medium and heavy duty trucks. Co-requisite: DIT 180. Laboratory: 2 credits (90 contact hours).

Components: Laboratory Attributes: Technical

DIT 190(3) Course ID:001292
Electrical Systems for Diesel Equipment
Covers the operation and diagnosis of the truck electrical system including the battery, starter, alternator, lighting and accessories. Co-requisite: DIT 191. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

DIT 191(2) Course ID:001293
Electrical Systems for Diesel Equipment Lab
Provides hands-on activities related to the concepts covered in DIT 190. Covers inspection, diagnosis, and performing repairs on batteries, starters, alternators and accessory systems found on medium and heavy duty trucks. Co-requisite: DIT 190. Laboratory: 2 credits (90 contact hours).

Components: Laboratory Attributes: Technical

DIT 198(1) Course ID:001297
Instructor Consent Required Practicum
The Practicum provides supervised on-the-job work experience related to the student's education objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Permission of Instructor

Components: Practicum Attributes: Technical

DIT 298(2) Course ID:001299
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

Components: Practicum Attributes: Technical

DLC 100(3) Course ID:007298
Digital Literacy
Introduces students to main components of digital literacy including computer fundamentals, key applications, and living online. This course closely mirrors the KCTCS Digital Literacy Standards. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Digital Literacy

DLC 100(1) Course ID:007393
Computer Fundamentals
Introduces students to main components of digital literacy regarding Computer Fundamentals. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

DLC 100(2) Course ID:007394
Key Applications
Introduces students to main components of digital literacy regarding Key Applications. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

DLC 100(3) Course ID:007395
Living Online
Introduces students to main components of digital literacy regarding Living Online. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

DLC Dental Laboratory Technology

DLC Digital Literacy

DLC Dental Laboratory Technology

DLC Dental Laboratory Technology
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course ID</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLT 122(2)</td>
<td>Course ID:004878</td>
<td>Removable Partial Dentures II</td>
<td>Advanced principles of removable partial denture prosthetics. Focus on design principles and fabrication. Emphasis on indirect retention, retentive grooves, and bases. Laboratory procedures include fabricating three removable partial dentures, including the attachment of artificial acrylic denture teeth. Pre-requisite: DLT 131. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours). Components: Laboratory, Lecture Attributes: Technical</td>
</tr>
<tr>
<td>DLT 142(2)</td>
<td>Course ID:004879</td>
<td>Occlusion</td>
<td>Theories of occlusion; interarch and intraarch relationships. Emphasis on temporomandibular joint and its movements, articulators, interocclusal records, and face-bow transfer. Laboratory practice in articulating and mounting casts, and restorative considerations. Pre-requisite: Occlusal Therapy. Components: Laboratory, Lecture Attributes: Technical</td>
</tr>
<tr>
<td>DLT 151(2)</td>
<td>Course ID:004880</td>
<td>Fixed Prosthodontics</td>
<td>The basic principles of crown and bridge fixed prosthetics. Emphasis on the fabrication of both single and multiple gold and non-gold restorations. Pre-requisite: Admission into the Dental Laboratory Program. Components: Laboratory, Lecture Attributes: Technical</td>
</tr>
<tr>
<td>DLT 152(2)</td>
<td>Course ID:004881</td>
<td>Fixed Prosthodontics II</td>
<td>The basic principles of metal ceramic fixed prosthetics. Pre-requisite: Admission into the Dental Laboratory Program. Components: Laboratory, Lecture Attributes: Technical</td>
</tr>
<tr>
<td>DLT 261(8)</td>
<td>Course ID:004882</td>
<td>Applied Laboratory Techniques</td>
<td>Students fabricate a complete case of prosthetic dentures in four specialty areas: complete denture prosthetics, removable partial denture prosthetics, dental ceramics, and fixed prosthetics. Emphasis is placed on learning technique, efficiency, and practicing productivity. Credit is awarded for completion of a minimum of 240 contact hours. Pre-requisite: DLT 131. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours). Components: Laboratory, Lecture Attributes: Technical</td>
</tr>
<tr>
<td>DLT 281(2)</td>
<td>Course ID:004883</td>
<td>Advanced Specialty Laboratory Techniques</td>
<td>Students fabricate a complete case of prosthetics, including fixed prosthetics, orthodontic appliances, and removable partial denture prosthetics. Emphasis is placed on the practical application of theoretical principles and concepts. Pre-requisite: Admission into the Dental Laboratory Program. Lecture/Lab: 6.0 credits (150 contact hours). Components: Laboratory, Lecture Attributes: Technical</td>
</tr>
</tbody>
</table>

**Dental Laboratory Management, History & Ethics**

- **Dental Laboratory Management, History & Ethics (DLT 291)**
  - Credit: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
  - Component: Lecture Attributes: Technical

**Diagnostic Medical Sonographer**

- **Diagnostic Medical Sonographer (DMS 105)**
  - Credit: 3 credits (45 contact hours).

**Introduction to Cardiology**

- **Introduction to Cardiology (DMS 106)**
  - Credit: 3 credits (45 contact hours).

**Department Consent Required Sonography**

- **Department Consent Required Sonography (DMS 109)**
  - Credit: 3 credits (45 contact hours).

**Abdominal Sonography**

- **Abdominal Sonography (DMS 111)**
  - Credit: 3 credits (45 contact hours).

**Vascular Sonography I**

- **Vascular Sonography I (DMS 117)**
  - Credit: 3 credits (45 contact hours).

**Vascular Sonography II**

- **Vascular Sonography II (DMS 118)**
  - Credit: 3 credits (45 contact hours).
DMS 119(6) Course ID:004393
Department Consent Required
Ultrasonics 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 121(6) Course ID:006263
Department Consent Required
Sonography Physics and Instrumentation
Consists of lectures and related laboratory exercises covering the areas of ultrasonic propagation principles, transducer parameters, interactive properties of ultrasound with human tissue, possible biologic effects, basic equipment types, instrumentation and quality control procedures, hemodynamics, and basic Doppler. 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 136(4) Course ID:006264
Vascular Clinical Education I
Includes observation and practice of all clinical duties performed in the vascular lab with basic instruction and scanning experience under the supervision of a credentialed Vascular Sonographer. Pre-requisite: DMS 117 with minimum “C” grade. Clinical: 4.0 credits (240 contact hours).
Components: Clinical
Attributes: Technical

DMS 145(12) Course ID:005942
Cardiac Sonography I
Covers the identification of structures and the correct technique to obtain images of the heart. Includes the fundamentals of ultrasound physics and instrumentation required to perform echocardiograms. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy. Minimum Grade of “C” in BIO 135 or (BIO 137 and BIO 139) and (PHY 151 or PHY 152 or PHY 171) and MAT 150. Lecture/Lab: 12.0 credits (225 contact hours).
Components: Lecture
Attributes: Technical

DMS 199(1) Course ID:005938
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 obtaining clinical history, interpretation of clinical laboratory tests, pathologic basis for disease, related clinical signs and symptoms, sectional anatomy, and normal/abnormal sonographic patterns. Pre-requisite: DMS 109 or DSM 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 204(2) Course ID:006266
Department Consent Required
Online Vascular Review
Provides a review of vascular sonography to prepare the student for the ARDMS certification examination. Includes activities and quizzes related to cerebrovascular, intracranial, peripheral venous, peripheral arterial and abdominal vascular sonography. Pre-requisite: Consent of Program Coordinator. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DMS 205(6) Course ID:005943
Cardiac Sonography II
Provides content related to the more advanced cardiovascular diseases. Includes how to correlate Doppler findings and measurements. Covers transesophageal echocardiography, stress echocardiography, Intensive Care Unit patient and Operative/Perioperative applications. Pre-requisite: DMS 145 with a minimum “C” grade or Consent of Program Coordinator. Lecture/Lab: 6.0 credits (270 contact hours).
Components: Lecture
Attributes: Technical

DMS 206(3) Course ID:006267
Online Vascular Sonography III
Covers the various test, miscellaneous conditions encountered in vascular sonography. Emphasizes the importance of quality measurements and safety practices. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy. Minimum Grade of “C” in BIO 135 or (BIO 137 and BIO 139) and (PHY 151 or PHY 152 or PHY 171) and MAT 150. Lecture/Lab: 2.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

DMS 207(3) Course ID:005944
Cardiac Sonography III
Covers the basic embryology of the heart, fetal and postnatal circulation, and basic types of congenital heart defects found in the adult. Includes how systemic disease affects the heart and basic clinical problem solving techniques used in echocardiography. Pre-requisite: DMS 205 with minimum “C” grade. Lecture/Lab: 6.0 credits (270 contact hours).
Components: Lecture
Attributes: Technical

DMS 217(3) Course ID:006702
Basic Cardiac Ultrasound Technology
Provides review and practical application of ultrasound and Doppler physics; cardiac anatomy, physiology, and pathophysiology; cardiac imaging: 2D, M-mode, Spectral and Color Doppler; and exam protocols. Pre-requisite: Applicants must be RDSM credentialed or graduate of an accredited sonography program or consent of a sonography program coordinator. Lecture: 3.0 credit (45 contact hours).
Components: Lecture
Attributes: Technical

DMS 230(5 - 8) Course ID:004396
Clinical Education II
Includes interaction in all clinical duties performed in all ultrasound departments. Covers abdomen, superficial structures, non-cardiac chest, embryo/fetus, and the gravid and non-gravid pelvic structures with performance of basic and advanced competencies to be performed. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy. Minimum Grade of “C” in BIO 135 or (BIO 137 and BIO 139) and (PHY 151 or PHY 152 or PHY 171) and (MAT 150. Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).
Components: Clinical
Attributes: Technical

DMS 236(8) Course ID:006268
Vascular Clinical Education II
Includes experience in clinical applications of cerebrovascular, intracranial, peripheral arterial, peripheral venous, and abdominal vascular sonographic examinations. Requires the performance of competencies with the rate of progress dependent upon the student’s ability to comprehend and perform assignments. Pre-requisite: DMS 136 with minimum “C” grade. Clinical: 8.0 credits (480 contact hours).
Components: Clinical
Attributes: Technical

DMS 237(5) Course ID:006269
Vascular Clinical Education III
Provides a more active clinical role in assisting the practicing vascular Sonographer and performing sonographic duties under direct supervision. Requires the performance of competencies with the rate of progress dependent upon the student’s ability to comprehend and perform assignments. Pre-requisite: DMS 230 with minimum “C” grade. 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 practicing sonographer and performing sonographic duties under direct supervision with the rate of progress dependent upon the student’s ability to comprehend and perform assignments. Pre-requisite: DMS 230 with minimum “C” grade. Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).
Components: Clinical
Attributes: Technical

DMS 245(6) Course ID:005945
Cardiac Sonography IV
Provides a comprehensive overview of program content with clinical applications. Pre-requisite: DMS 145 with minimum “C” grade or Consent of Program Coordinator. Lecture/Lab: 6.0 credits (270 contact hours).
Components: Lecture
Attributes: Technical

DMS 255(6) Course ID:005939
Vascular Technology
Provides a review of vascular sonography to prepare the student for the related registry. Includes obtaining clinical history, interpretation of clinical laboratory tests, pathologic basis for disease, related clinical signs and symptoms, sectional anatomy, and normal/abnormal sonographic patterns. Pre-requisite: DMS 109 or DSM 111 with minimum “C” grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DMS 260(8) Course ID:005940
Vascular Clinical Education
Provides clinical experience by student actively assisting and performing vascular procedures under direct supervision of a Vascular Technologist. Completes competencies including cerebrovascular, upper/lower extremity arterial and venous, and abdominal vascular examinations. Pre-requisite: DMS 255 with minimum “C” grade. Clinical: 6.0 credits (360 contact hours).
Components: Clinical
Attributes: Technical
DMS 280(3) Course ID:005335
Basic Vascular Technology
Provides review and practical application of vascular technology (Carotid Duplex Scanning and Peripheral/Vascular Scanning) with an analysis of anatomy, physics, hemodynamics, exam protocols, and pathology. Pre-requisite: Applicant must be RDMS credentialed or a graduate of an accredited sonography program or Consent of Program Coordinator. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DPT 3D Printing
DPT 100(3) Course ID:015703
Introduction to 3D Printing Technology
Provides an introduction to the world of Three Dimensional printing (3DP) and its applications in conjunction with computer technology. Introduces topics including computer hardware and software, 3D printing technology, file management, the Internet, e-mail, the social web, sustainability, security, and computer and intellectual property ethics. Presents basic use of application, programming, systems, and utility software. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Digital Literacy, Technical

DPT 102(2) Course ID:016604
3D Printing Technology Fundamentals
Provides an introduction to the world of three-dimensional (3D) printing or additive manufacturing (AM) and its applications. Introduces topics including 3D printing technologies, basic use of 3D applications, programming, systems, 3D-scanning, and utility software. Pre-requisite or Co-requisite: CIT 105, demonstration of digital literacy competency by exam or certificate, or other approved course with digital literacy status. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DPT 150(3) Course ID:016605
Introduction to Engineering Mechanics for 3D Printing
Provides an introduction to simplified engineering mechanical principles as they apply to 3D printing, 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
Allows the student to gain intermediate level experience in their prospective fields through projects and tasks assigned by the instructor and based on applications the student may one day experience as 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

ECEL Electrical & Computer Engineering
ECEL 252(3) Course ID:005759
Introduction to Electrical Engineering
Reviews electrical quantities, definitions and laws, as applied to DC and AC circuits. Introduces transient and steady state solutions of linear networks, impedance concepts, the Phasor Transform for AC Analysis, complex AC Power, diode applications, and operational Amplifiers. Discusses electrical safety. Pre-requisite: PHY 232, MA 214. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ECO Economics
ECO 101(3) Course ID:000445
Contemporary Economic Issues
Covers contemporary economic issues such as inflation, poverty and affluence, globalization, and environmental pollution. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ECO 150(3) Course ID:006703
Introduction to Global Economics
Covers the causes and issues of global economic interdependence, with particular emphasis on cross-cultural implications of globalization. Includes global economic issues such as economic development, global economic governance, changing demographics, health care, world poverty, changing patterns of food production, global energy use, and the economic consequences of global environmental issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science, Course Also Offered in Modules

ECO 201(3) Course ID:000447
Principles of Microeconomics
Covers the allocation of scarce resources from the viewpoint of individual economic units. Topics include supply and demand, elasticity, costs, and markets. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 202(3) Course ID:000449
Principles of Macroeconomics
Covers how society's needs are satisfied with the limited resources available. Includes issues such as inflation, unemployment, economic growth, globalization, and fiscal and monetary policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 2011(1) Course ID:005925
How Markets Work
Covers the foundations of contemporary economic issues emphasizing scarcity, choice, benefits, costs, and demand. Lecture: 1 credit (15 contact hours).
Components: Lecture

ECO 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

ECO 1013(1) Course ID:005927
Markets and Regulation
Covers contemporary economic issues such as externalities, market failure, globalization, and competition. Lecture: 1 credit (15 contact hours).
Components: Lecture

ECO 1011(0.75) Course ID:005928
The Role of Economics
Covers the allocation of scarce resources from the viewpoint of individual economic units. Topics include the circular flow of resources in the economy, the production possibilities frontier, and opportunity cost. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

ECO 1012(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

EDM Education
EDM 270(3) Course ID:004011
Teaching and Learning in the Middle Grades
Provides students in middle school education with knowledge and experience critical for instruction of middle school students and management of middle school classrooms. Requires field experience of a minimum of 15 clock hours in instructor-approved education agencies. Pre-requisite: EDP 202 and EDU 201. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EDP Educational and Counseling Psychology
EDP 202(3) Course ID:000452
Human Development and Learning
Presents theories and concepts of human development, learning, and motivation and applies them to interpreting and explaining human behavior and interaction in relation to teaching across the developmental span from early childhood to adulthood. Requires field experience of a minimum of 15 clock hours in instructor-approved educational agencies. Pre-requisite: PSY 100 or PY 110. 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 120 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
Provides students with a theoretical background of motivation and behavior. Reviews current classroom practices to motivate students and ensure positive classroom behavior. Applies strategies to classroom situations. Teaches basic research methods that apply strategies to classroom situations. Pre-requisite: EDP 202. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Other

EDU Education

EDU 110(3) Course ID:004451
Orientation to Education
Introduces the roles and responsibilities of both the paraeducator and the classroom teacher. Covers legal and ethical issues that might be encountered in the classroom, instructional support strategies that might be implemented by paraeducators, universal health and safety procedures, and the importance of communication and teamwork in the instructional environment. Introduces the design of learning environments that encourage active participation in individual and group settings. Requires 10 hours of field work. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

EDU 120(3) Course ID:004450
Child and Adolescent Development
Acquaints the student with the cognitive, social, moral, language, emotional, and physical development of children and adolescents. Addresses the application of these theories in the modern classroom. Requires 10 hours of field work. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

EDU 130(3) Course ID:004449
Introduction to Special Education
Introduces methods on the creation of a learning environment, basic classroom management theories, key principles and practices of special education, and the similarities and differences of individuals with and without exceptional learning needs. Requires 10 hours of field work. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

EDU 140(3) Course ID:004448
Introduction to Behavior Management
Introduces the student to strategies of classroom and behavior management that create a positive learning environment encouraging student self-advocacy, increased independence, and improved communication skills. Introduces behavior management strategies that encourage respect and value individual differences among children, youth, and adults and how consequences should be used to motivate positive student behavior. Includes focus on chronic behavior problems. Requires 10 hours of field work. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

EDU 150(3) Course ID:004447
Practical Experiences for the Paraeducator
Provides the capstone experience for the paraeducator certificate. Pre-requisite: (EDU 110 and EDU 120 and EDU 130 and EDU 140) or Consent of Coordinator. Lecture: 1.0 credit (15 contact hours); Practicum/Co-op: 2 credits (150 contact hours).
Components: Co-op, Lecture, Practicum Attributes: Technical

EDU 201(3) Course ID:000451
Introduction to American Education
Presents an introduction to teaching including teaching as a profession, major educational philosophies, social reform, trends and issues in education, curriculum and instruction. Requires a minimum of 15 clock hours of field observation in an approved educational setting. Pre-requisite: ENG 101 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EDU 204(3) Course ID:004547
Technology in the Classroom
Provides the student with a basic skill set to utilize technology in instruction and instructional management. Explores the methods of using computing fundamentals, key technology applications, and the digital environments that enhance teaching and learning. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Digital Literacy

EDU 240(3) Course ID:002279
Elementary and Middle School Literature
Surveys both traditional and modern literature for children and adolescents. Emphasizes selection, evaluation, storytelling, and the use of media to meet the literary needs and interests of children from preschool through middle school. Requires fifteen hours of field observation. Pre-requisite: ENG 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EDU 270(3) Course ID:004551
Elementary School Literature
Surveys traditional and modern literature for elementary school children. Emphasizes selection, evaluation, storytelling, and use of media to meet the literary needs and interests of children. Requires a minimum of 15 clock hours of field observation in an approved educational setting. Pre-requisite: ENG 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EDU 280(3) Course ID:004446
Education Externship/Co-op
Provides a capstone experience for the AAS degree in educational paraeducator. Pre-requisite: Consent of Coordinator. Lecture: 1 credit (15 contact hours); Practicum/Co-op: 2 credits (150 contact hours).
Components: Co-op, Lecture, Practicum Attributes: Technical

EDU 299(3) Course ID:004445
Instructor Consent Required
Selected Topics in Education
Addresses various education topics, issues and trends. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EE Electrical Engineering

EE 211(4) Course ID:000454
Circuits I
Fundamental laws, principles and analysis techniques for DC and AC linear circuits whose elements consist of passive and active components used in modern engineering practice including the determination of steady state and transient responses. Pre-requisite: MA 114. Pre-requisite or concurrent: PHY 232, PHY 242.
Components: Lecture Attributes: Technical

EES Electronics

EES 101(2) Course ID:001332
Basic Electronics
Provides the foundation for further study in technologies related to electricity or electronics. Addresses the following areas: basic electrical components and their properties, quantities, and units of measurement; calculation of voltage, current, resistance, energy, and power using Ohms Law; construction and analysis of series, parallel, and series/parallel circuits; principles of magnetism and electromagnetism; alternating current and voltage; reactive components; construction and analysis of RC, RL, and RLC circuits; sinusoidal and other waveforms. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

EEE Electronics Technology

EEE 118(5) Course ID:015852
Basic Electricity
Introduces basic electricity concepts applicable to AC and DC circuits pertinent to the electrical technology industry. Provides an in-depth study of Ohm’s Law, series, parallel, and series/parallel circuit characteristics. Focuses on providing students with an overview of common electrical safety practices, AC/DC generation, AC and DC Principles, magnetic principles, transformers, capacitors, inductors, and basic electrical testing equipment along with a focus on the construction, calculation, measurement, and troubleshooting of various AC and DC circuits by way of laboratory exercises and classroom lecture.
Pre-requisite: MAT 065 or equivalent placement level or consent of Instructor. Lecture/Lab: 5.0 credits (45-60 contact hours).
Components: Lecture Attributes: Technical

EEE 127(1)
Electrical Technology Capstone
Serves as the capstone course for the Electrical Technology degree program and all of its concentrations. Integrates prior learning outcomes into a single integrated learning experience. Includes an exit exam that all program graduates must take. Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

EEE 150(2) Course ID:001355
Transformers
Focuses on the operation, installation and application of AC single-phase and three-phase transformers. Testing and maintaining transformer equipment are emphasized, with safety integrated as a core component of the study.
Pre-requisite: [EEE 110 or EEE 119] with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 151. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

EEE 151(1) Course ID:001356
Transformers Lab
Focuses on the operation, installation and application of AC single-phase and three-phase transformers. Testing and maintaining transformer equipment is emphasized, with safety integrated as a core component of the study.
Pre-requisite [EEE 110 or EEE 119] with a minimum grade of
EET 154(2) Course ID:001358
Electrical Construction I
Involves the study of materials and procedures used in construction wiring. Co-requisite: EET 155.
Components: Lecture Attributes: Technical

EET 155(2) Course ID:001359
Electrical Construction I Lab
Designed to give hands-on experiences with electrical materials and equipment in construction wiring. Co-requisite: EET 154. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

EET 198(2) Course ID:001361
Instructor Consent Required
Practicum
The practicum provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Practicum Education program do not receive compensation for their work. Pre-requisite: Consent of Instructor.
Components: Practicum Attributes: Technical

EET 250(4) Course ID:001410
National Electrical Code
Emphasizes the importance of the National Electrical Code as it applies to electrical installations: electrical safety issues, prevention of fire due to the use of electrical energy, prevention of loss of life and property from the hazards that might arise from the use of electrical energy, and proper selection of electrical equipment for hazardous and non-hazardous environments. A learning resource in the preparation for electrical licensing examinations. Pre-requisite: [EET 154 and EET 155 and EET 252 and EET 253] or [EET 254 and EET 255] with minimum grade of "C" or consent of Electrical Technology program advisor(s). Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Technical

EET 252(2) Course ID:001411
Electrical Construction II
Expands the knowledge and skills needed to work in commercial and industrial construction wiring. Pre-requisite: Consent of Instructor or EET 154. Co-requisite: EET 253.
Components: Lecture Attributes: Technical

EET 253(2) Course ID:001412
Electrical Construction II Lab
Provides hands-on experiences needed to work in commercial and industrial construction wiring. Co-requisite: EET 252. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

EET 254(3) Course ID:001413
Electrical Construction
This course involves the study of materials and procedures and expands the knowledge and skills needed to work in commercial and industrial construction wiring. Co-requisite: EET 255. Lecture: 3 credits 945 contact hours).
Components: Lecture Attributes: Technical

EET 255(4) Course ID:001414
Electrical Construction Lab
Designed to give hands-on experiences with electrical materials and equipment in commercial and industrial construction wiring. Co-requisite: EET 254. Laboratory: 4 credits (120 contact hours).
Components: Laboratory Attributes: Technical

EET 264(2) Rotating Machinery Course ID:001419
Rotating Machinery
Focuses on the underlying principles of rotating electrical equipment including DC and AC motors and agenerating equipment construction, operating applications, and the maintenance of DC and AC motors and agenerating equipment. Pre-requisite: [EET 150 and EET 114] with a minimum grade of C or consent of Electrical Technology program advisor(s). Co-requisite: EET 265. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

EET 265(2) Rotating Machinery Lab Course ID:001420
Rotating Machinery Lab
Focuses on the principles of operation and maintenance of single-phase and three-phase AC motors and alternators, DC motors, and DC generators. A study of and compliance with the National Electrical Codes. Pre-requisite: [EET 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 264. Lab: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

EET 266(3) Rotating Machinery and Transformers
Focuses on the principles of operation and application of single-phase and three-phase AC transformers. Covers analysis of voltage, current, and power parameters and connection configurations. Gives an in-depth study of direct and alternating current rotating machinery that produces and utilizes electrical energy. Pre-requisite: [EET 110 and EET 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) 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. Requires safe installation methods. Pre-requisite: [EET 266 with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 267. Lab: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

EET 268(3) 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 269. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EET 269(4) Rotating Machinery and Motor Controls I Lab
Provides practical experience in the operation of control devices and their applications in industry today. Provides experience in the construction, operation, and maintenance of AC motors and alternators, and DC motors and generators. Safety and electrical lockouts are included. 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).
Components: Laboratory Attributes: Technical

EET 270(2) 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 271(2) Electrical Motor Controls I Lab
Provides practical experience in the use of control devices and their applications in industry today. Safety and electrical lockouts are 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 270. Lab: 2.0 credit (60 contact hours).
Components: Laboratory Attributes: Technical

EET 272(2) Electrical Motor Controls II Lab
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 273. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

EET 273(2) Electrical Motor Controls II
This course provides hands-on experience in advanced studies in electrical controls used in industry including three-phase motor control and variable speed control using solid state devices and programmable controls. Prerequisite: EET 270. Co-requisite: EET 272. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

EET 274(3) 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) Electrical Motor Controls Lab
Provides practical experience in the use of control devices and their applications in industry today. Safety and electrical lockouts are also 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) Programmable Logic Controllers
Underlying principles and applications of programmable logic controllers including installation, logic fundamentals, and numbering systems; basic programming of inputs,
EET 277(2) Course ID:001432
Programmable Logic Controllers Lab
Provides practical applications of programmable logic controllers including installation, logic fundamentals, and troubleshooting. Pre-requisite: (EET 110 or EET 119) with a minimum grade of "C" and (EET 270 and EET 272) or EET 286 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: Laboratory Attributes: Technical

EET 281(1) Course ID:001435
Instructor Consent Required
Special Problems I
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of instructor.
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 specific special needs. Pre-requisite: Permission of instructor.
Components: Laboratory Attributes: Technical

EET 285(3) Course ID:001437
Instructor Consent Required
Special Problems III
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of instructor.
Components: Laboratory Attributes: Technical

EET 286(2) Course ID:004627
Programmable Logic Controllers II
Focuses on sequencer instructions, shift registers, process control instructions, networking, communications, human to machine interfaces, and troubleshooting techniques used with programmable logic controllers. 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: Lecture Attributes: Technical

EET 289(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 298(1 - 8) Course ID:001439
Instructor Consent Required
Cooperative Education Program
Co-op provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Cooperative Education program receive compensation for their work. (This course may be taken for 1 - 8 credits.) Pre-requisite: Consent of Instructor.
Components: Co-op Attributes: Technical

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. in a global economy and how an individual can function successfully in the U.S. economic system. Students will explore various aspects involved in being responsible consumers, the importance of personal financial planning, and the relationship between employment opportunities and financial security, and other aspects of becoming successful productive workers, consumers, and citizens.
Components: Lecture Attributes: Other

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 EGR112 are not eligible for EGR 101. Pre-requisites: Enrolled in the College of Engineering or MA-ECT of 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)

EGR 102(2) Course ID:016991
Fundamentals of Engineering Computing
Fundamentals of Engineering Computing introduces students to the practice and principles of computing and computational problem solving. Students will engage in hands-on project-based problem solving using modern computer software and hardware, with a particular emphasis on problems and techniques commonly appearing in various domains of engineering. Open to students enrolled in the College of Engineering. Pre-requisites: Enrolled in the College of Engineering or MA-ECT of at least 23 or equivalent. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: University Course (University of Kentucky)

EGR 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, linemen maintenance and transmission safety. Pre-requisite: (EET 110 and EET 150 and EET 151) or (electrical experience and consent of instructor).
Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture Attributes: Technical

EGR 220(4) Course ID:006823
Energy Efficiency Electrical Controls
Designed for Electrical Technology students and Apprentices, Journeymen, Master, and Contractor Electricians as a foundation into the studies of green technology relating to electrical energy. Focuses on the assessment of electrical energy usage in commercial buildings with the understanding that the electrical energy technician will install and maintain efficient electrical controls and equipment. Prepares students to assist in the design of efficient electrical energy systems under the supervision of a Certified Energy Manager or Licensed Professional Engineer. Pre-requisite: (EET 110 and EET 154 and EET 252 and EET 253 and EET 290) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture Attributes: Technical

EGR 230(4) Course ID:006824
Solar / Photovoltaic Technologies
Covers the design and installation of grid connected, stand-alone, and hybrid photovoltaic (PV) systems, and involves hands-on work with PV systems and equipment. Intended for electrical technology students, apprentices, contractors, electricians, and other practitioners, with an overall goal of developing "system-knowledgeable professionals" to help ensure the safety and quality of PV system installations. Pre-requisite: (EET 110 and EET 154 and EET 155 and EET 252 and EET 253 and EET 250) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture Attributes: Technical

EGR 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 experience 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 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: (EET 110 and EET 115) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours)
Components: Lecture, Laboratory 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, linemen maintenance and transmission safety. Pre-requisite: (EET 110 and EET 150 and EET 151) or (electrical experience and consent of instructor).
Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture 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: EET 110 or consent of instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture Attributes: Technical
ELT 102(2) Course ID:000526
Blueprint Reading
A comprehensive study of current drafting standards and blueprint reading techniques are included. Topics include standard lines and symbols, sketching techniques, orthogonal projection, auxiliary views, detail and assembly drawings, dimensions, tolerances, sectional views, title block information, machining specifications, and specialized forms of engineering drawings. Lecture: 2.0 (30 contact hours).
Components: Lecture Course Equivalents: BRX 120
Attributes: Technical

ELT 103(3) Course ID:005443
Introduction to Engineering
Provides an introduction to the engineering profession, engineering disciplines, and technology. Emphasizes a problem-solving approach, engineering design process, and team projects. 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 105(3) Course ID:005591
Computer Maintenance Essentials
Introduces basic computer hardware and operating systems, covering basic and advanced troubleshooting. 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: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

ELT 106(2) Course ID:000529
Mechanical Engineering Graphics
Includes basic technical sketching and working drawings as applied to mechanical engineering. Students will create or analyze multi-view drawings, symbols, schematics, and sketches typical of mechanical engineering drawings. Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

ELT 107(4) Course ID:000533
Computer Applications for Technicians
Introduces computer applications commonly used in technical occupations. Covers circuit analysis, computational, analytical, and other software packages. Lecture: 1.0 credit (15 contact hours), Lab: 3 credits (90 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, 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: Course Also Offered in Modules, Technical

ELT 114(5) Course ID:004634
Circuits II
Addresses theory and application of complex alternating current and direct current circuits. Emphasizes impedance, reactance, power and electrical energy, electrical measurement instruments, and circuit analysis. 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: Course Also Offered in Modules, Technical

ELT 118(3) Course ID:000566
Computer Numerical Control
Introduces computer numerical control technology, covering programming and metal removal techniques. Includes topics of machine tools, tools and controls, and design and troubleshooting of digital logic circuits. 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, combinational 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, Lecture Attributes: Course Also Offered in Modules, Technical

ELT 122(3) Course ID:000573
Mechanical Power Transmission Systems
Introduces industrial mechanical systems and devices, which are commonly associated with Millwright and Industrial Maintenance functions. Includes topics of belt drives, gear drives, chain drives, couplings, packing/seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Pre-requisite: ELT 124, Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

ELT 124(1) Course ID:000578
Mechanical Power Transmission Systems Lab
Introduces mechanical systems and systems common to the Millwright and Industrial Maintenance trades. Includes topics of belt drives, gear drives, chain drives, couplings, packing/seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Pre-requisite: ELT 122. Lab: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Technical

ELT 214(1) 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 loading 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
Devices I
Provides basic theory and application of semiconductor devices. Emphasizes design, construction and troubleshooting of diode and transistor circuits, amplifiers and power supplies. 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: Technical

ELT 214(4) Course ID:004642
Devices II
Covers theory and application of advanced semiconductor devices. Emphasizes thyristors, FETs, integrated circuits, and other devices used in radio 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: Technical

ELT 220(3) Course ID:004645
Digital II
Introduces theory and application of advanced digital logic methods. Includes small and medium scale integrated circuits, logic families, interfacing techniques, arithmetic circuits, programmable devices, and an introduction to microprocessors. Pre-requisite: Consent of Instructor. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

ELT 222(3) Course ID:004647
Instructor Consent Required Mechanics of Telephony
Covers the history of the telephone and regulations that impact the telecommunications industry, analog and digital transmission mediums, and the evolution of wireless and digital services. Utilizes the graduated-height method for developing climbing skills and confidence. 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 operating systems. 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 the 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), Laboratory: 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, contacts, and solid state devices in control circuits. Provides application of digital and analog control techniques, ladder logic, and programmable 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 industrial environments. 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
Robotic and Industrial Automation
Introduces theory of robots including terminology, components, and basic programming. Provides theory and application of servo and non-servo robots. Includes robot types, controllers, manipulators, and basic robotic programming. Provides the theory and operation of flexible and computer-integrated manufacturing and control systems. Provides the opportunity to develop, set up work cells, and integrate the work cells into a total computer-integrated manufacturing system at a beginning level. 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 261(3) Course ID:000679
Instrumentation and Measurements
Provides a study of instruments used by the mechanical engineering technician and training in the techniques of their use. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: 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 loads. 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 285(5) Course ID:000697
Applied Fluid Power
Covers the fundamental types of hydraulic and pneumatic devices and circuits used in industry. Includes bascillud mechanics, industrial hydraulic components, pneumatic components, circuit design and analysis, electrocontrol 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 289(1) Course ID:006806
Engineering and Electronics Technology Capstone
Serves as the capstone course for the Engineering and Electronics Technology degree program and all of its concentrations. Integrates prior learning outcomes into a single integrated learning experience. Includes an exit exam that all program graduates must take. Pre-requisite: (ELT 120 and ELT 210) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture Attributes: Technical

EM 211(3) Course ID:000462
EMS Paramedic/Allied Health
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 or concurrent: MA 215. Components: Lecture Attributes: Other

EM 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 and pathophysiology related to cardiac crisis, arrhythmia recognition and 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). Components: Clinical, Laboratory, Lecture Attributes: Technical

EM 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-
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

Clinical Experience II
Course ID: 007310

Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program with a focus on the emergency department, operating room, and respiratory care. Pre-requisite: EMS 215. Clinical: 1.0 credit (60 contact hours).

Components: Clinical
Attributes: Technical

EMS 230(4)
Course ID: 007311

Traumatic Emergencies

Presents the advanced concepts of out-of-hospital trauma care and critical thinking activities leading to formulation of a field impression and implementation of an appropriate treatment plan and scene management. Includes the kinematics of trauma, assessment, resuscitation, management, monitoring, and transportation of trauma patients across the life span. Co-requisite: EMS 221. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

EMS 231(1)
Course ID: 007312

Medical Lab

Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets with a focus on application to medical emergencies. Co-requisite: EMS 240 and EMS 250. Lab: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

EMS 235(2)
Course ID: 007311

Clinical Experience III

Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on the emergency department, obstetric unit, mental health facility, and pediatric units. Pre-requisite: EMS 225. Clinical: 2.0 credits (120 contact hours).

Components: Clinical
Attributes: Technical

EMS 240(3)
Course ID: 007314

Medical Emergencies I

Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies involving the respiratory system, nervous system, abdominal and gastrointestinal tracts, genitourinary and renal systems, gynecology, musculoskeletal system, and the eyes, ears, nose, and throat. Co-requisite: EMS 231. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EMS 250(3)
Course ID: 007315

Medical Emergencies II

Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies encompassing immunology, infectious diseases, including HIV/AIDS, the endocrine system, psychiatric conditions, toxicology, and hematology. Pre-requisite: EMS 240. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EMS 260(3)
Course ID: 007316

Special Populations

Provides the opportunity to develop special knowledge and skills necessary to assess and manage ill and 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 challenges. 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 airmedical 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/scenario format where principles of assessment and intervention are applied in a team setting. Pre-requisite: EMS 225. Lab: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

EMS 285(5 - 6)
Course ID: 007319

Field Internship & Summation

Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite OR Co-requisite: EMS 275. Lab: 1.0 credit (45 contact hours). Practicum: 4.0 - 5.0 credits (360 - 450 contact hours).

Components: Laboratory, Practicum
Attributes: Technical

EMS 2851(3)
Course ID: 016630

Field Internship I

Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite OR Co-requisite: EMS 275. Practicum: 3.0 credits (270 contact hours).

Components: Practicum

EMS 2852(2 - 3)
Course ID: 016631

Field Internship II

Provides the opportunity for continued application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite OR Co-requisite: EMS 2851. Laboratory: 1.0 credit (45 contact hours). Practicum: 2.0 credits (180 contact hours).

Components: Laboratory, Practicum
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 form, subjects, and approaches to short stories. Outside reading provides models and inspiration. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

ENG 221(3) Course ID:000479
Survey of English Literature I
Acquaints students with significant texts in English literature from the Middle Ages to the early 17th Century. Focuses on the literature in its social, political, and cultural contexts. Lecture: 3 credits (45 contact hours). Pre-requisite: ENG 101.
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 222(3) Course ID:000481
Survey of English Literature II
Covers the late 17th Century through the present with emphasis on important writers and cultural backgrounds. Focuses on social, political, and cultural contexts. Lecture: 3 credits (45 contact hours). 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 specific 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:004902
Literature and Genre (Subtitle required)
Explores one or two different literary forms or genres, i.e., the formal categories into which literary works are placed, including the conventions of each genre and related sub-genres. Considers student writing. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 232(3) Course ID:004903
Literature and Place (Subtitle required)
Explores a number of selected literary texts with special attention to the author's connection to place and how the author's sense of place influences representations of experience. Considers student writing. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 233(3) Course ID:004904
Literature and Identities (Subtitle required)
Explores a number of selected literary texts, with special attention to the construction of personal, ethnic, racial, or national identity and considers how race, class, sexuality, and/or nationality influence representations of experience. Includes attention to student writing. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ENG 234(3) Course ID:004905
Introduction to Women's Literature
Introduces students to the rich body of women's writing. Explores common and differing themes, attitudes, cultural norms, and gender identity evident in multilingual, diverse societies through analysis and discussion of texts by women writers. 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: AH - Arts and Humanities

ENG 270(3) Course ID:000491
The Old Testament as Literature
Surveys the major types of Old Testament literature in English translation. Examines historical backgrounds while emphasizing careful analysis of literary forms and techniques. 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 techniques. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 281(3) Course ID:000495
Introduction to Film
Introduces the study of movies as a narrative art and a cultural document. Requires viewing of films outside of class. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Equivalents: HUM 281

ENG 282(3) Course ID:005429
International Film Studies
Introduces students to close reading and argumentative writing about literature, in relation to a specific theme. 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: Course Equivalents: HUM 282

ENG 291(1) - 3) Course ID:005345
Special Topics in English
Examines selected topics in English. Includes, but not limited to, individual authors, specified genres, and defined eras. 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:005767
Writing a Personal Essay
Focuses on academic writing. Provides instruction in reading critically, thinking logically, and responding to texts in a way that expresses a personal perspective. Pre-requisite: ACT score of 18, COMPASS score of 70 or ENC 091. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

ENG 1012(0.75) Course ID:005768
Writing a Profile Essay
Focuses on academic writing. Provides instruction in reading critically, thinking logically, and responding to texts in a way that expresses a personal perspective. Pre-requisite: ACT score of 18, COMPASS score of 70 or ENC 091. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

ENG 1013(0.75) Course ID:005769
Writing to Persuade
Focuses on academic writing. Provides instruction in reading critically, thinking logically, and responding to texts in a way that expresses a personal perspective. Pre-requisite: ACT score of 18, COMPASS score of 70 or ENC 091. 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, and responding to texts in a way that expresses a personal perspective. Pre-requisite: ACT score of 18, COMPASS score of 70 or ENC 091. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

ENG 1021(1) Course ID:005791
The Language of Argument
Emphasizes argumentative writing. Provides further instruction in argumentation strategies and concepts, leading to the planning and drafting of a preliminary argumentative essay. Pre-requisite: ENG 101 or ENG 1014. Lecture 1.0 credits (15 contact hours).
Components: Lecture

ENG 1022(1) Course ID:005792
Argument Style and Design
Emphasizes argumentative writing. Provides instruction in the 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) Course ID:005793
Research and Argument
Emphasizes argumentative writing. Provides instruction in the 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 208(1) Course ID:015859
Business Writing Basics
Introduces basic business writing concepts and forms to build a foundation for further study. Pre-requisite: [ENG 101 and (ENG 102 or Consent of Instructor)] or ENG 105. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
ENM Energy Management

ENM 101(9) Course ID:007242 Energy Industry Fundamentals
Investigates competencies required for employment by various industries that manufacture energy sources. Introduces students to methods of power production, power distribution, and physics principles that are associated with both, and addresses competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for power industries. Qualifies the student to take the CEWD Energy Industry Fundamentals Certification exam. Lecture/Lab: 9.0 credits (150 contact hours).
Components: Lecture Attributes: Technical

ENM 111(3) Course ID:007243 Sustainability Management
Examines the management of corporations as it relates to sustainability. Includes an overview of energy technology, energy resources, and emerging future energy technologies coupled with social and environmentally related legislation and its effect on corporations' triple bottom line (people, profit, and planet).
Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

ENM 121(3) Course ID:007244 Solar Design and Applications
Educates students about alternative solar energy applications which will contribute to a reduction in fossil fuel energy usage and increase cost savings related to conventional energy consumption. Additionally, the course serves to satisfy the competencies needed to qualify students to complete the North American Board of Certified Energy Practitioners (NABCEP) Entry Level Solar Certification. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ENM 200(3) Course ID:007219 Commercial Energy Analysis
Examines ways to improve the energy efficiency of commercial buildings. Emphasizes the building envelope, lighting, HVAC, motors, appliances, water, electrical, and compressed air systems and their controls with a focus on an energy management system. Examines energy savings and reductions in operational expenses, commercial energy compliance software will be used.
Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ENM 210(3) Course ID:007220 Smart Grid Applications
Introduces students to the components needed to renovate the current vertical structured power grid to a smart high voltage structure power grid that will allow energy to flow in different directions. Focuses on the application of different components within a smart grid system and how they integrate and communicate with each other for smooth transmission of electricity.
Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ENM 230(3) Course ID:007221 Building Automation
Introduces students to the components involved in a building automated system (BAS). Investigates the communication and components contained in an integrated building system that controls various components of building systems. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ENM 250(3) Course ID:007222 Regulatory and Environmental Issues in Energy Management
Observes building energy conservation code compliance adopted by various states. Complements other courses in the energy management program providing additional skills needed for energy efficient buildings. Qualifies students to take the LEED Green Associate exam upon completion of the course.
Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

ENM 260(3) Course ID:007223 Air Conditioning and Refrigeration Regulations
Analyzes the regulations associated with the 608 EPA certification. Qualifies students to understand the regulations and policies associated with EPA policies. Complements other proposed energy management courses providing additional skills needed for energy efficient buildings. Qualifies students to take the 608 EPA Certification Examination at the completion of the course.
Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ENM 101(3) Course ID:016357 Energy Industry Basics
Investigates competencies required for employment by various industries that manufacture energy sources. Addresses the competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for energy industries. Combines with the other two modules to qualify students to take the CEWD Energy Industry Fundamentals (EIF) certification exam.
Components: Lecture

ENM 101(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 103(3) Course ID:016422 Energy Emerging Technologies
Introduces students to emerging technologies and careers in the energy industry. Addresses the competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for energy industries. Combines with the other two modules to qualify students to take the CEWD Energy Industry Fundamentals (EIF) certification. Pre-requisite: ENM 1012. Lecture: 3 credits (45 contact hours).
Components: Lecture

ENV Environmental Technology

ENV 110(4) Course ID:001442 Introduction to Environmental Technology
Introduction to Environmental Technology provides a background in the historical and current developments in environmental problems, solutions, strategies, and regulations. Students explore the various aspects of water/land, and air pollution, pollution prevention and control, and the role of regulation at the local, state, and federal level.
Components: Lecture Attributes: Technical

EOM Equine Management

EOM 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 Attributes: Technical

EOM 120(3) Course ID:004756 Introduction to Commercial Breeding Practices
Introduces prospective horse farm personnel to the breeding farm environment. Includes topics that relate to commercial breeding farm management and the necessary record keeping requirements. Pre-requisite: EOM 100 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EOM 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

EOM 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: EOM 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

EOM 242(3) Course ID:004758 Equine Law
This course explores the values of legal documents as they relate to commercial and recreational horse/horsefarm owners. Topics discussed include review of current legislation governing horse activities, types of legal contracts, liability issues, and security interests. Pre-requisite: EOM 100 and BA 267, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

EOM 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

EOM 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: EQM 240, EQM 242, and concurrent enrollment to or successful completion of EQM 246.  Practice: 3 credits (180 contact hours).

Components: Practice

Attributes: Technical

**EQS 101(3)** Course ID:007320

Provides a general overview and basic understanding of care and management of the thoroughbred, including identification registration information, conformation, equine behavior and equine facility design and management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

**EQS 111(3)** Course ID:005350

Basic Equine Physiology

Introduces 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 113(4)** Course ID:005353

Instructor Consent Required

Racehorse Riding Skills II

Continues development of riding skills learned in EQS 112 by applying principles to riding racehorses in morning exercise sessions. Includes application of balance to evaluate soundness in racehorses; basic starting gate techniques for riders; principles of teaching young horses to enter and leave the starting gate and techniques for handling unruly horses. Pre-requisite: EQS 112 and consent of instructor. Lecture/Lab: 4.5 credit (150 contact hours).

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

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, preparing for in-training sales and/or racing, concepts of nutrition for growing equine athletes, cardiovascular conditioning, muscle fitness, sale presentation and injuries of two-year-olds in race training. Pre-requisite Or Co-requisite: EQS 103; Racehorse Care EQS 104; Racehorse Care Lab. Lecture/Lab: 3.0 credits (105 contact hours).

Components: Lecture

Attributes: Technical

**EQS 125(3)** Course ID:005804

Equine Nutrition

Presents principles of nutritional management as it relates to the overall health and performance of the thoroughbred. Pre-requisite: EQS 110 OR Consent of Instructor. Lecture: 3.0 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: 3.0 credits (45 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

Attributes: Technical

**EQS 213(2)** Course ID:005504

Instructor Consent Required

Racehorse Riding Principles

Builds on basic skills learned in EQIS 113 and adds principles of riding racehorses on a training track. Teaches a new company of other horses and riders, teaching horses to pass others, working in company, proper use of ridingcrop 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: Lecture

Attributes: Technical

**EQS 214(2)** 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, supervised by 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 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 259(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 inAssociate in Applied Science Degree, diploma, or certificate program. Is available only to students enrolled in Associate in Applied Science in Equine Studies, Equine Studies Diploma and certificate program that list EquineCooperative Education
reading skills and expand vocabulary as they interact with level-appropriate texts. Students will be recommended to this course based on the ESL placement examination. Lecture: 4 credits (60 contact hours).

Components: Lecture

Attributes: English for Foreign Students

ESL 13(4) Course ID:005307
Advanced Listening and Speaking
High-beginning level ESL students will improve comprehension and communication in English in both social and academic settings. Instruction will include improving listening skills for academic note-taking and small group discussions. Students will be expected to lead and share in class discussions based on reading and authentic listening materials. Students will also present orally in front of the class. Students will be recommended to this course based on the ESL placement examination or through completion of ESL 11. Lecture: 4 credits (60 contact hours).

Components: Lecture

Attributes: English for Foreign Students

ESL 20(4) Course ID:005216
Reading Improvement and Vocabulary Development for Low-Intermediate Non-Native English Speakers
Low-intermediate level ESL 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: English for Foreign Students

ESL 30(4) Course ID:005078
College Reading and Vocabulary Development for High-Intermediate Non-Native English Speakers
High-intermediate level ESL students will master fundamental reading skills, improve critical reading, and further vocabulary development. Students will be introduced to a variety of genres, such as newspaper articles and essays, poems, short stories, charts, graphs and college-level content textbooks. Through the selected readings, this course will foster cultural awareness, comprehension, and interaction. The readings and activities introduced in the course will allow students to engage in meaningful dialogue, and in the process, refine their English skills. Pre-requisite: ESL 020 or placement test.

Components: Lecture

Attributes: English for Foreign Students

ESL 31(3) Course ID:004037
Beginning Conversation for Non-Native English Speakers
Beginning level ESL students will learn basic conversation and practice basic sounds and intonation patterns.

Components: Lecture

Attributes: English for Foreign Students, Course Also Offered in Modules

ESL 51(3) Course ID:004043
Introduction to College Reading for Non-Native English Speakers
Beginning-level students will acquire or strengthen fundamental reading skills and expand vocabulary as they interact with level-appropriate texts.

Components: Lecture

Attributes: English for Foreign Students

ESL 52(3) Course ID:004044
Improved College Reading for Low-Intermediate Non-native English Speakers
Intermediate-level students will review fundamental reading skills, learn and practice higher-order reading skills, expand vocabulary and increase reading efficiency as they interact with level-appropriate texts. Pre-requisite: ESL 51.

Components: Lecture

Attributes: English for Foreign Students

ESL 53(3) Course ID:004045
High-Intermediate Reading for Non-Native English Speakers
High-intermediate level ESL 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 other. 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.

Components: Lecture

Attributes: English for Foreign Students

ESL 61(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.

Components: Lecture

Attributes: English for Foreign Students

ESL 62(4) Course ID:004047
Foundations of College Writing II for Non-Native English Speakers
Low-intermediate level ESL students continue to enhance their composition skills by receiving instruction in the following: the writing process, organization, multi-paragraph writings, editing, and critical reading. Grammar instruction focuses on key structures and provides a springboard for expanding students’ abilities in all language skills. Pre-requisite: ESL 61.

Components: Lecture

Attributes: English for Foreign Students

ESL 63(4) Course ID:004048
Foundations of College Writing III for Non-Native English Speakers
ESL 63 is designed to help students prepare for ENG 101. High-intermediate level ESL students continue to work on the writing process, editorial improvement and critical reading. Grammar instruction includes advanced grammatical points, such as modal auxiliaries, gerunds, infinitives, adjectives and noun clauses. Pre-requisite: ESL 62 or placement test.

Components: Lecture

Attributes: English for Foreign Students

ESL 71(3) Course ID:007210
College Writing I for Non-Native Speakers
Introduces writing modes, including description, narration, process, and persuasion; pre-requisite: ESL 050 or placement test. According to KCTCS Assessment and Placement Policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Remedial - English, English for Foreign Students

ESL 72(3) Course ID:007046
College Writing II for Non-Native Speakers
Introduces writing modes, including description, narration, comparison and contrast, cause and effect, process, and persuasion; pre-requisite: ESL 051 or placement test. According to KCTCS Assessment and Placement Policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Remedial - English, English for Foreign Students

ESL 81(3) Course ID:007211
College Grammar I for Non-Native Speakers
Introduces basic verb tenses, formation of questions, modals, clauses, and parts of speech for 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: 2.0 credits (30 contact hours).

Components: Lecture

Attributes: Remedial - English, English for Foreign Students

ESL 82(3) Course ID:007047
College Grammar II for Non-Native Speakers
Introduces intermediate-level verb tenses, formation of questions, modal verbs, clauses, count and non-count nouns, and parts of speech to non-native speakers of English. Incorporates instructional methods that are designed for non-native speakers of English. Credit is not given to students who have received credit for ESL 80 and ESL 82. Pre-requisite: Currently appropriate assessment scores or completion of ESL 81. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Remedial - English, English for Foreign Students

ESL 90(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, multi-paragraph development, paragraph writing, and editing. Basic instruction in grammar provided. Students will be recommended to this course based on the ESL placement examination.

Components: Lecture

Attributes: English for Foreign Students

ESL 91(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. Grammar instruction in grammar provided. Pre-requisite: placement test.

Components: Lecture

Attributes: English for Foreign Students

ESL 92(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 documentation sources. Grammar instruction includes advanced grammatical points. Pre-requisite: ESL 91 or placement test.
ESL 100(3) Course ID:016566
Listening for Academic Purposes
This course cultivates skills to improve academic speaking performance for non-native speakers of English enrolled in American university classes. Special attention is given to effective academic presentations, interpersonal communication skills, pronunciation and accent. This course is designed to 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: 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: 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 speeds, 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: 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: University Course (University of Kentucky)

ESP 101(3) Course ID:005324
Introduction to Energy Systems
Introduces energy generating systems including solar, wind, bioenergy, geothermal, hydroelectric, hydrogen-based, petroleum-based, coal, and nuclear. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 110(3) Course ID:005491
Petroleum Based Fuels
Introduces the major petroleum based fuels including energy content, uses, availability, distribution methods, storage, and future impact of each fuel. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 120(3) Course ID:005492
Power Plant Chemistry
Introduces chemical processes relating to power plant operations including basic chemical principles and specific chemistry of fuels, boiler and cooling water, steam, water treatment and environmental controls. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 130(3) Course ID:005493
Electrical Concepts
Provides an overview of the electrical concepts needed to operate a fossil-fueled power plant stressing plant electrical distribution and safe operation. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 132(3) Course ID:005494
Electrical Machinery and Controls
Provides detailed training in the operation of electrical machinery and controls in a fossil-fueled powerplant including proper operation during normal operations, startups and shutdowns, and transient. Pre-requisite: ESP 130. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 211(3) Course ID:005320
Power Plant Operations I
Introduces overall power plant operations including electrical generation, fuels and steam generation. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 212(3) Course ID:005322
Power Plant Operations II
Provides detailed training in the operations of boilers, fuel, air, combustion and emissions systems, including auxiliary equipment of a coal-fired (fossil fueled) power plant. Proper operation during normal operations, startups and shutdowns, and transient conditions will be stressed. Pre-requisite: ESP 211 consent of the instructor. 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 laboratory. Provides an overview of the ecological concepts needed to operate a fossil-fueled power plant stressing plant electrical distribution and safe operation. Requires planning, research, and completion of both individual and team-based projects. Lecture: 3.0 credits (45 contact hours).
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 225(3)  Course ID: 005054
Freshwater Invertebrates
An overview of the morphology, life history and ecology of freshwater invertebrates and their habitats as well as their importance and role in stream protection and restoration. Students will learn how to collect, preserve and identify freshwater invertebrates. Students will learn how to calculate and analyze biometric data to infer stream quality. Pre-requisite: EST 150.

Components: Lecture
Attributes: Technical

EST 230(2)  Course ID: 004748
Aquatic Chemistry Laboratory
This course provides focused study on the chemistry of water. The course will provide students with laboratory experience in analyzing surface, ground, and drinking waters for a variety of chemical constituents. Laboratory: 2 credits (60 contact hours). Pre-requisite: CHE 105, CHM 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 the 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 280(1)  Course ID: 004753
Environmental Trends Seminar
This course provides an examination of current approaches used to address a variety of environmental problems. Students will hear and critique presentations from professionals in the environmental field. Students will also research and give a presentation on a specific method to minimize or eliminate a technical problem. Pre-requisite or concurrent: EST 160, EST 150, COM 151 or COM 252, EST 170, EST 220, EST 260, and EST 250 or consent of instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

EST 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

ETT 110(4)  Course ID: 004231
Voice & Data Installer Level I
A comprehensive orientation to the telecommunication industry. Provides entry-level telecommunications knowledge. Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours). Pre-requisite: Consent of EST Program Coordinator. Lecture: 1-3 credits (15-45 contact hours).

Components: Lecture
Attributes: Technical

ETT 111(3)  Course ID: 004232
Basic Electrical Theory: Telenetworking
Introduces the theory of electricity, magnetism, and the relationship of voltage, current, resistance, and power in electrical circuits as related to telecommunications. Designed to develop an understanding of alternating and direct current fundamentals. Students will apply formulas to analyze the operation of AC and DC circuits. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ETT 112(3)  Course ID: 004233
Basic Electrical Theory Lab
Allows the student to do hands-on applications of the theories and fundamentals learned in ETT 111. Co-requisite: ETT 112. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

ETT 114(4)  Course ID: 004234
Voice & Data Installer Level II
Designed for experienced telecommunications installers who wish to expand knowledge of the industry, learn new skills, and continue to advance professionally. Pre-requisite: ETT 110 with a grade of C or greater. Lecture: 3 credit (45 contact hours), Laboratory: 1 credit (30 contact hours).

Components: Lecture
Attributes: Technical

EX 196(1-6)  Course ID: 000747
Instructor Consent Required
Experiential Education
A planned and evaluated learning work experience for which the student receives academic credits and may receive financial remuneration. The work experience may be related to the student’s major or may be exploratory in nature. One credit may be awarded for each 40 hours of work experience. The course may be repeated for a maximum of 6 credits and is available on a Pass/Fail basis only. This course is open only to transfer, non-degree and undecided students. Lecture: Variable, Laboratory: Variable. Pre-requisite: Consent of instructor.

Components: Laboratory, Lecture
Attributes: Technical

FAM 253(9)  Course ID: 000662
Introduction to Family Science
Introduces the scientific study of the family, including important theoretical frameworks in family science, historical trends in marriage and family life, gender role theory, family life theory, parenthood, communication, economics of family life, conflict, divorce, step-families and step-parenting, and family strengths. Analyzes contemporary family issues and requires informed, written positions on those issues. Pre-requisite: 3.0 credit hours of social or behavioral science or consent of instructor.

Components: Lecture
Attributes: SB - Social Behavior Science

FAM 253(3)  Course ID: 000666
Human Sexuality: Development, Behavior, and Attitudes
Studies human sexuality, including the process of gender and attitudes, sexual response patterns, sexual behavior, and attitudes. Pre-requisite: 3.0 credit hours in social or behavioral science or consent of instructor.

Components: Lecture
Attributes: SB - Social Behavior Science

FAM 255(3)  Course ID: 000059
Child Development
Overviews the various aspects of development (physical, social, emotional, intellectual) for children ages birth through adolescence. Emphasizes techniques of directed observation. Pre-requisite: 3.0 credit hours of social or behavioral science or consent of instructor.

Components: Lecture
Attributes: Other, Technical
FHM 100(2) Course ID:001463
Dosage Calculations
Provides an overview of basic math skills, a thorough knowledge of the system of measurement and conversion, and application skills to perform dosage calculations. Emphasis is placed on unit analysis to calculate medication dosages.
Components: Lecture
Attributes: Technical

FLK 278(3) Course ID:004779
Introduction to Folk Studies
An introduction to the study of folk traditions in different contexts, focusing on the concepts of folk group, cultural relativism, fieldwork, meaning and function, and the genres of folk narrative, folksong, folk custom, and traditional material culture. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Other

FSL 122(4) Course ID:016196
Filmmaking: Treatment to Short Screen Play
Provides project-based instruction on the basics of filmmaking. Familiarizes students with the process of creating a film treatment and proposal, and writing and revising a screenplay. Co-requisite: (FLM 132 AND FLM 140) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

FSL 132(4) Course ID:016198
Filmmaking: Storyboard through Production
Provides project-based instruction on basics of film production. Familiarizes students with directing, lighting, set design, cinematography, and audio. Co-requisite: (FLM 112 AND FLM 132 AND FLM 140) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

FSL 140(2) Course ID:016199
Filmmaking: Lab
Covers the lab portion of all topics included in FLM 112, FLM 122, and FLM 132. Consists of guest lecturers, group projects, and hands-on experience in film, ranging from pre-production and storyboards to post production. Co-requisite: (FLM 112 AND FLM 122 AND FLM 132) or Instructor Consent. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

FSL 190(3) Course ID:016193
Film Boot Camp
Covers the organization and setup of a film production in the form of a film ‘boot camp’. Includes lecture from experts in the field. Provides real world experience for first year students in the roles of Production Assistant, Assistant Director, Camera Assistant, and grip, and for second year students in the roles of Cinematographer, Director of Photography, Producer, and Director. Focuses on completion of a short film production. Lecture: 1.0 credits (15 contact hours). Lab: 2.0 credits (60 contact hours)
Components: Lecture
Attributes: Technical

FMS 110(2) Course ID:006948
Funeral Service Management and Merchandising
Surveys management and merchandising techniques as related to the operation of a funeral business.
Components: Lecture
Attributes: Technical

FNS 120(4) Course ID:006650
Funeral Service Counseling
Examines psychological concepts in the areas of grief, bereavement, and mourning with particular emphasis on the roles of the funeral director in relation to these concepts as well as a facilitator of the funeral service, crisis intervenor, and after care counselor. Pre-requisite: Admission to the Funeral Service Program. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

FNS 131(3) Course ID:006652
Funeral Service Ethics, Regulations, and Statutes
Surveys general principles of mortuary and business law. Emphasis is on ethical practice. Compliance with pre-need and at-need regulatory agencies included. Pre-requisite: Admission to the Funeral Service Program. Lecture: 3.0 credits (45 contact hours).
Components: Laboratory
Attributes: Technical

FNS 150(3) Course ID:006953
Pathology
Surveys the basic principles of chemistry as they relate to the operation of a business, focusing on those statutes and regulations pertinent to funeral directors and morticians. Pre-requisite: Admission to the Funeral Service Program. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

FNS 165(2) Course ID:006654
Sociology of Funeral Service
Surveys social phenomena that affect all elements of funeral service, including family and social structure and other factors that relate to funeral service. Pre-requisite: Admission to the Funeral Service Program. PSY 110 or SOC 101. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

FNS 170(4) Course ID:006655
Thanatochemistry
Surveys the basic principles of chemistry as they relate to funeral service. Stresses the chemical principles and precautions involved in sanitation, disinfection, public health and embalming practice. Reviews the government regulation of chemicals currently used in funeral service. Pre-requisite: Admission to the Funeral Service Program. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
FPX 240(4) Course ID:006956
Restorative Arts
Emphasizes restorative arts as applied to funeral services, including anatomical modeling, and expression. Emphasizes familiarization with tools, legal aspects, materials, and techniques. Pre-requisite: Admission to the Funeral Service Program and BIO 135. Lecture: 3.0 credits (45 contact hours) Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

FNS 250(4) Course ID:006957
Embalming
Emphasizes procedures, requirements, equipment, and materials involved in the embalming process. Pre-requisite: Admission to the Funeral Service Program and FNS 250. Practicum: 1.0 credit (50 contact hours).
Components: Practicum
Attributes: Technical

FNS 255(1) Course ID:006958
Embalming Practicum
Provides practical experience in embalming and funeral directing in a mortuary or funeral home environment under the supervision of a licensed embalmer and/or funeral director. Pre-requisite: Admission to the Funeral Service Program and FNS 250. Practicum: 1.0 credit (50 contact hours).
Components: Practicum
Attributes: Technical

FPX 1001(4) Course ID:006542
Fluid Power
Introduces the basic fundamentals of pneumatic component, system design, and operation. Covers higher levelschematic 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 1004 or Consent. Lecture: 1 credit (15 contact hours).
Components: Lecture

FPX 1004(1) Course ID:006543
Hydraulic System Components and Applications
Introduces the basic fundamentals of hydraulic component, system design, and operation. Covers higher levelschematic layout and design as well as the specifics involved with the actual component selection. Provides the opportunity to design and build actual hydraulic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1014 or Consent. Lecture: 1 credit (15 contact hours).
Components: Lecture

FRE 202(4) Course ID:000754
Elementary French II
Continues the study of basic French through grammar, reading, and oral practice. Stress speaking, listening, reading and writing as target skills. Emphasizes everyday language and presents an overview of the cultures of various Francophone countries.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 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.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRS Fire/Rescue Science
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 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 101(3) Course ID:001466
Introduction to Fire Service
This course includes fire department organization, fire behavior, firefighter safety, personal protective equipment, portable fire extinguishers, fire hose, appliance and streams
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRE French Language and Literature
FRE 102(4) Course ID:000866
Elementary French I
Introduces basic modes of communication in French. Stress speaking, listening, reading and writing as target skills. Emphasizes everyday language and presents an overview of the cultures of various Francophone countries.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 101(4) Course ID:000754
Elementary French I
Introduces basic modes of communication in French. Stress speaking, listening, reading and writing as target skills. Emphasizes everyday language and presents an overview of the cultures of various Francophone countries.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 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.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRS 101(3) Course ID:001466
Introduction to Fire Service
This course includes fire department organization, fire behavior, firefighter safety, personal protective equipment, portable fire extinguishers, fire hose, appliance and streams
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRE 202(4) Course ID:000754
Elementary French II
Continues the study of basic French through grammar, reading, and oral practice. Stress speaking, listening, reading and writing as target skills. Emphasizes everyday language and presents an overview of the cultures of various Francophone countries.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 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 201 or three years of high school French and placement test.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 202(4) Course ID:000866
Elementary French II
Introduces basic modes of communication in French. Stress speaking, listening, reading and writing as target skills. Emphasizes everyday language and presents an overview of the cultures of various Francophone countries.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 201(3) Course ID:000754
Elementary French I
Introduces basic modes of communication in French. Stress speaking, listening, reading and writing as target skills. Emphasizes everyday language and presents an overview of the cultures of various Francophone countries.
Components: Lecture
Attributes: Foreign Language, Cultural Studies
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 credit hours (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 203(3) Course ID:001473
Firefighters Advanced Skills III
Includes pump operations II, drivers training, overhaul, fire alarms and communications, sprinklers, and sprinkler systems. Pre-requisite: FRS 202 or Consent of Instructor. Lecture: 5 credits (75 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). 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

FRS 206(8) Course ID:001476
Fire Officer II
Includes EMT, managing company tactical operations, decision making, and instructional techniques for company officers. Pre-requisite: FRS 203 or Consent of Instructor. Lecture: 8 credit hours (160 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 207(6) Course ID:001477
Fire Officer III
Includes company officer, incident command system (ICS), leadership strategies for company success, and fire/arsen detection. Pre-requisite: FRS 203 or Consent of Instructor. Lecture: 6 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 101(0.7) Course ID:003890 13-AUG-2008 Fire Department Organization I
Includes an overview of fire department organization, the role of department members, the mission of the department, standard operating procedures, rules and regulations, components of management, introduction to the Incident Command System and the roles of other agencies. Lecture: 0.7 credits (10 contact hours).
Components: Lecture

FRS 102(0.3) Course ID:003891
Fire Officer I
Explores the aspects of the behavior of fire in its various forms. Covers the classification of fuel, product of combustion, and safety issues related to life hazards. Explains the three physical states of matter in which fuels are commonly found. Lecture: 0.3 credits (4 contact hours).
Components: Lecture

FRS 103(0.4) Course ID:003892
Firefighter Safety
Introduces the concept of safety in all phases of fire department operations. Covers station safety in normal day to day fire department operations as well as emergency response. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

FRS 104(0.8) Course ID:003893
Personal Protective Equipment I
Adapts the course material to the use of personal protective equipment including protective clothing and self-contained breathing apparatus. Pre-requisite: (FRS 1012 and FRS 1013) or Consent of Instructor.
Components: Laboratory, Lecture

FRS 105(0.2) Course ID:003894
Portable Fire Extinguishers I
Covers types, classification and use of fire extinguishers including the definitions utilized in rating e.g., a house extinguisher and the selection of a given extinguisher in attacking a particular class of fire.
Components: Laboratory, Lecture

FRS 106(0.8) Course ID:003895
Fire Hose, Appliances and Streams I
Introduces the student to the types and uses of operations of fire hose, appliances and streams used in the fireservice. Pre-requisite: FRS 1014 or Consent of Instructor.
Components: Laboratory, Lecture

FRS 107(0.2) Course ID:003896
Ropes I
Familiarizes the student with the use and maintenance of ropes and the various less useful to hostile equipment, securing objects and rescue. Pre-requisite: (FRS 101 or FRS 1014) or Consent of Instructor.
Components: Laboratory, Lecture

FRS 108(0.6) Course ID:003897
Ladders I
Covers basic information pertaining to the use of ladders in the fire service including ladder terminology, types of ladders and ladder carries and raises. Pre-requisite: FRS 1021 or Consent of Instructor.
Components: Laboratory, Lecture

FRS 109(0.4) Course ID:003898 13-AUG-2008 Aircraft Rescue
Provides the basic information needed by firefighters to effectively perform the various tasks involved in aircraft fire fighting and rescue. The information is consistent with the recommendations in NFPA 1003 Standard for Professional Qualifications for Airport Fire Fighters, 1987 Edition. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

FRS 110(0.4) Course ID:003899
Rescue I
Addresses the procedures of search for location, removal of entrapped and/or injured persons under fire conditions, and identifies the equipment required by the National Fire Protection Association used to affect the procedures. Pre-requisite: FRS 1022 or Consent of Instructor.
Components: Laboratory, Lecture

FRS 111(0.3) Course ID:003900
First Aid
Addresses the knowledge and skills for administering first aid including the assessment and treatment of individuals sustaining injury or sudden illness until a higher level of trained emergency care technicians arrives.
Components: Laboratory, Lecture

FRS 1026(0.3) Course ID:003901
Bloodborne Pathogens
Provides bloodborne pathogens education for emergency responders, health professionals, and others who are subject to exposure in the 1) transmission; 2) prevention and control; 3) treatment; 4) legal issues; and 5) attitudes and behavior regarding human infections, and covers requirements of OSHA 1910.1030. Lecture: 0.3 credits (4 contact hours).
Components: Lecture

FRS 1027(0.1) Course ID:003902
Emergency Disaster Planning I
Introduces the concept of emergency management and the importance of an incident command system. Identifies the likelihood of fire department involvement as an all-hazard response agency. Lecture: 0.1 credits (2 contact hours).
Components: Lecture

FRS 1028(0.2) Course ID:003903
Forcible Entry I
Identifies materials and construction features of doors, windows, walls, and window locking devices. Teaches forced entry through at least three (3) different types each of doors, windows, and walls. Discusses maintenance of tools and equipment used for forced entry and safety factors. Pre-requisite: (FRS 101 or FRS 1014) or Consent of Instructor.
Components: Laboratory, Lecture

FRS 1029(0.5) Course ID:003904
CPR
Provides the knowledge and skills for administering care for respiratory or cardiac arrest including airway, breathing, and circulation assessment and the procedures to eliminate blockage of the airway, provide breathing assistance, and cardiac compressions.
Components: Lecture

FRS 1030(0.7) Course ID:003905
Building Construction
Improves the ability of students to assess building stability and resistance to fire. Teaches to protect thieves of firefighters and community residents, while improving operational effectiveness through more complete and accurate ‘size-ups.’ Upgrades the skills of our nation’s fire service.
Components: Lecture

FRS 1032(0.5) Course ID:003956
Introduction to Wildland Fire Behavior
Familiarizes firefighters with wildland fires. Includes familiarization with the fire triangle, how environmental factors influence wildland fires, and the ability to recognize situations that indicate problem extreme wildland fire behavior. Lecture: 0.5 credits (8 contact hours).
Components: Lecture

FRS 1033(1.4) Course ID:003906
Fire Control I
Teaches the student to control or extinguish stacks of Class A materials, combustible liquids, vehicle fires, exterior dumpster/trash bin, and Class A combustible materials within a structure. Pre-requisite: (FRS 1011 and FRS 1016 and FRS 1028) or Consent of Instructor. Corequisite: FRS 1034 or Consent of Instructor.
Components: Laboratory, Lecture

FRS 1034(0.4) Course ID:003907
Ventilation I
Involves the study of the principles of ventilation, including the methods of removing heated air, smoke and gases from a structure. Includes a review of roof structures and their effects on ventilation procedures. Pre-requisite: FRS 1022 or consent of Instructor Co-requisite: FRS 1033 or consent of Instructor.
Components: Laboratory, Lecture

FRS 1041(0.4) Course ID:003941
Water Supply I
Provides the firefighter with a general understanding of water systems. Broadens the basic understanding of water supply system and how it works. Covers hydrant systems as well as static water sources for
determining their value as a firefighter water supply source. Pre-requisite: (FRS 1012 and FRS 1016) or Consent of Instructor

Components: Laboratory, Lecture
FRS 1042(0.2) Course ID:003942
Foam Fire Streams I
Instructs the student in foam performance, extinguishing properties and types of foam used in the fireservice today. Pre-requisite: (FRS 1012 and FRS 2023) or Consent of Instructor

Components: Laboratory, Lecture
FRS 1043(0.3) Course ID:003943
Salvage I
Reviews salvage methods and operating procedures that further reduce fire, water, and smoke damage during and after fires. Pre-requisite: FRS 1033 or Consent of Instructor

Components: Lecture
FRS 1044(0.1) Course ID:003944
Overhaul I
Provides the firefighter with a general understanding of the purpose and scope of overhaul, including recognition of hidden fires and methods used to separate, remove, and relocate charred materials. Pre-requisite: (FRS 1028 and FRS 1034) or Consent of Instructor

Components: Lecture
FRS 1045(0.2) Course ID:003945
Fire Alarms and Communications I
Covers basic information pertaining to fire alarms and communications including radio operations, alarm receiving equipment, and dispatching procedures. Lecture: 0.2 credits (3 contact hours).

Components: Lecture
FRS 1046(0.5) Course ID:003946
Hazardous Materials Awareness
Introduces the student to the principles of recognizing hazardous materials presence, protecting themselves from hazardous materials and calling for training/personnel, and securing the area safety. Lecture: 0.5 credits (8 contact hours).

Components: Lecture
FRS 1047(1.1) Course ID:003947
Hazardous Materials Operations
Involves working with Federal Occupational Safety and Health Administration (OSHA), local occupational health and safety regulations and, U.S. Environmental Protection (EPA) requirements. Pre-requisite: (FRS1014 and FRS 1046) or Consent of Instructor. Lecture: 1.1 credits (16 contact hours).

Components: Lecture
FRS 1048(0.2) Course ID:003948
Sprinklers I
Gives the firefighter a basic understanding of how sprinkler systems are designed and how they operate. Pre-requisite: FRS 1041 or Consent of Instructor. Lecture: 0.2 credits (3 contact hours).

Components: Lecture
FRS 1051(0.3) Course ID:003908
Fire Department Organization II
Includes an overview of an advanced fire department member's roles within the organization and the member responsibilities relative to the transfer of command. Pre-requisite: FRS 1011 or Consent of Instructor

Components: Lecture
FRS 1052(0.4) Course ID:003909
Fire Behavior II
Describes the chemistry and behavior of fire. Looks at finely divided fuel, flash point, ignition temperatures and heat sources. Pre-requisite: FRS 1012 or Consent of Instructor

Components: Lecture
FRS 1053(0.5) Course ID:003910
Personal Protective Equipment II
Addresses the nomenclature, use, maintenance, and documentation relative to the personal protective equipment including protective clothing and self-contained breathing apparatus. Pre-requisite: FRS 1014 or Consent of Instructor

Components: Laboratory, Lecture
FRS 1054(0.6) Course ID:003911
Fire Hose, Appliances and Streams II
Covers the selection, maintenance and testing of fire hoses, nozzles and appliances. Pre-requisite: FRS 1033 or Consent of Instructor

Components: Laboratory, Lecture
FRS 1055(0.7) Course ID:003912
Ropes II
Includes rope size, strength, type and length of rope to accomplish a firefighting or rescue task. Pre-requisite: FRS 1021 or Consent of Instructor

Components: Laboratory, Lecture
FRS 1056(0.5) Course ID:003913
Forcible Entry II
Identifies materials and construction features of doors, windows, walls, and door and window locking devices. Teaches forced entry through at least three different types of doors, windows, and walls. Discusses maintenance of specific equipment used for forced entry and safety factors involved. Pre-requisite: FRS 1028 or Consent of Instructor

Components: Laboratory, Lecture
FRS 2011(0.3) Course ID:003914
Firefighter Safety II
Correlates federal, state, and local laws as they relate to firefighter health and safety. Discusses the firefighter role in safety department and includes safety procedures for hand and power tools. Pre-requisite: (FRS 1013 and FRS 1026 and FRS 1034) or Consent of Instructor

Components: Lecture
FRS 2012(0.7) Course ID:003915
Ladders II
Includes information pertaining to the use of ladders in the fire service including construction materials, load capacities, and cleaning and inspection. Pre-requisite: FRS 1022 or Consent of Instructor

Components: Laboratory, Lecture
FRS 2013(0.3) Course ID:003916
Rescue II
Addresses the techniques and procedures to follow relative to towing equipment and their proper use and the extraction of trapped victims. Pre-requisite: FRS 1024 or Consent of Instructor

Components: Laboratory, Lecture
FRS 2014(0.3) Course ID:003917
Ventilation II
Involves a hands-on study of ventilation procedures. Reviews mechanical ventilation systems and their use in fire ground operations. Pre-requisite: FRS 1034 or Consent of Instructor. Lecture: 0.3 credits (4 contact hours).

Components: Lecture
FRS 2015(0.6) Course ID:003918
Fire Control II
Provides an advanced course to teach the student to control or extinguish live fires involving combustible liquid of at least 100 sq. ft. using foam, fire in an elevated location, hidden fires inside walls and crawl spaces, fire involving energized electrical components and fire involving a flammable gas cylinder. Pre-requisite: FRS 1033 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
FRS 2016(0.8) Course ID:003919
Emergency Disaster Planning II
Meets the needs of fire officers and crew leaders with responsibilities to manage the operations of one or morecompanies in structural firefighting operations. Includes preparation for response, decision-making, and tactical operations. Involves extensive use of simulation to apply concepts and develop skill. Pre-requisite: FRS 1027 or Consent of Instructor. Lecture: 0.8 credits (13 contact hours).

Components: Lecture
FRS 2021(0.1) Course ID:003920
Portable Fire Extinguishers II
Covers types, classification and use of fire extinguishers including the definitions utilized in rating extinguish and the selection of a given extinguisher in attacking a particular class of fire. Pre-requisite: FRS 1015 or Consent of Instructor. Lecture: 0.1 credits (2 contact hours).

Components: Lecture
FRS 2022(0.8) Course ID:003921
Water Supply II
Includes information pertaining to water supply including water distribution systems, hydrant operation and apparatus, equipment and after fires. Pre-requisite: FRS 1014 or Consent of Instructor.

Components: Laboratory, Lecture
FRS 2023(1.1) Course ID:003922
Pump Operations I
Includes the minimum requirements of professional competence of fire service pump operators. Pre-requisite: FRS 1041 or Consent of Instructor.

Components: Laboratory, Lecture
FRS 2024(0.1) Course ID:003923
Foam Fire Streams II
Involves an advanced course designed to instruct the student in the proper use of foam, the equipment used to make foam, and the hydraulics used in creating foam. Pre-requisite: FRS 2023 or Consent of Instructor. Lecture: 0.1 credits (1 contact hour).

Components: Lecture
FRS 2025(0.1) Course ID:003924
Salvage II
Covers, at an advanced level, salvage methods and operating procedures that further reduce fire, water, and smoke damage during and after fires. Pre-requisite: FRS 1043 or Consent of Instructor. Lecture: 0.1 credits (1 contact hour).

Components: Lecture
FRS 2026(0.8) Course ID:003957
Fire Prevention, Public Education and Fire Cause Determination I
Covers basic information pertaining to the causes of fire and their prevention, fire inspections, and publicfire education. Pre-requisite: FRS 1043 or Consent of Instructor. Lecture: 0.8 credits (12 contact hours).

Components: Lecture
FRS 2031(0.5) Course ID:003925
Pump Operations II
Includes the minimum requirements of professional competence required for service as a fire apparatus driver. Pre-requisite: FRS 2023 or Consent of Instructor. Lecture: 0.5 credits (8 contact hours).

Components: Lecture
FRS 2032(0.8) Course ID:003926
Driver’s Training
Involves the minimum requirements of professional competence required for service as a fire apparatus driver. Pre-requisite: FRS 2011 and FRS 2013 and Valid Driver License.

Components: Laboratory, Lecture
FRS 2033(0.2) Course ID:003927
Overhaul II
Includes information pertaining to overhaul including safety precautions, indicators of structural instability, the preservation of evidence, and the procedures for restoration of the fire premises. Pre-requisite: FRS 1044 or Consent of Instructor. Lecture: 0.2 credits (3 contact hours).

Components: Lecture
FRS 2034(0.3) Course ID:003928
Fire Alarms and Communications II
Discusses the policies and procedures concerning ordering and transmitting of multiple alarms and supervisory alarm equipment. Pre-requisite: FRS 1045 or Consent of Instructor. Lecture: 0.3 credits (5 contact hours).

Components: Lecture
Course Descriptions

FRS 2035(0.5) Course ID:003929
Sprinklers II
Promotes increased knowledge of various types of sprinkler systems and the working of these systems. Pre-requisite: FRS 104 or Consent of Instructor. Lecture: 0.5 credits (7 contact hours).
Components: Lecture

FRS 2036(0.7) Course ID:003930
Practicum
Provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the practicum do not receive compensation. Pre-requisite: FRS 101 and FRS 102 and FRS 103 and FRS 104
Components: Practicum

FRS 2041(3) Course ID:003931
First Responder (EMS)
Covers selected aspects of trauma care as outlined by the national standard created by federal guidelines and considered to be the responsibilities services with emergency medical response missions, consisting of classroom and laboratory instructions. Involves typical anatomy and physiology; patient assessment, care for respiratory and cardiac emergencies; control of bleeding, application of dressing and bandages, treatment for traumatic shock; care for fractures, dislocation, sprains and strains; medical emergencies; emergency childbirth; burns and heat emergencies; environmental emergencies; principles of vehicle rescue, transport of patient, and general operations of emergency medical services. Lecture: 3 credits (45 contact hours).
Components: Lecture

FRS 2051(0.5) Course ID:003932
Fire Prevention, Public Education and Fire Cause Determination II
Relates to pre-fire planning, fire incident reports, building fire safety surveys, school exit drills, homesafety programs, common fire hazards, fire cause determination, protection and detection systems and identification of structural deficiencies that could cause fires. Pre-requisite: FRS 2026 or Consent of Instructor.
Components: Lecture

FRS 2052(1.1) Course ID:003935
Firefighter Survival & Rescue
This intensive training course was developed in response to the tragic deaths of many firefighters across the nation in the past several years. Many of those who perished did so because they could not get out of the fire building or area where they were working. We train our firefighters in confined space, hazardous materials, infectious disease control, and incident command but until now there was no training course that taught our firefighters how to save their own lives. The firefighter Survival and Rescue courses are designed to fill this void by reviewing conditions and situations which may pose a risk to firefighters and by teaching firefighters how to help themselves in emergency conditions. Pre-requisite: FRS 1024 or Consent of Instructor. Lecture: 1.1 credits (16 contact hours).
Components: Lecture

FRS 2053(3.4) Course ID:003933
Hazardous Materials Technician
Provides the required training for Federal Occupational Safety and Health Administration (OSHA), KentuckyOccupations Health and Safety regulation and U.S. Environmental Protection Agency (EPA) requirements. Covers responding to releases or potential releases of hazardous materials for the purpose of controlling the release and using specialized chemical-protective clothing and specialized control equipment. Pre-requisite: FRS 1047 or Consent of Instructor.
Components: Laboratory, Lecture

FRS 2061(6) Course ID:003934
Emergency Medical Technician (EMT)
Covers all known aspects of trauma care as outlined by national standards, created by federal guidelines, considered to be the responsibilities of ambulance operations. Involves typical anatomy and physiology, patient assessment, care for respiratory and cardiac emergencies, control of bleeding, application of dressing and bandages; treatment for traumatic shock; care for fractures, dislocation, sprains and strains; medical emergencies; emergency childbirth; burns and heat emergencies; environmental emergencies; principles of vehicle rescue, transport of patient, and general operations of ambulance systems. Pre-requisite: Consent of Instructor.
Components: Lecture

FRS 2062(1) Course ID:003935
Managing Company Operations: Decision Making
Meets the needs of fire officers and crew leaders with responsibilities to manage the operations of one or more companies in structural firefighting operations. Includes preparation for response, decision making, and tactical operations. Includes, as the foundation of the course, an extensive unit of simulation to provide application of concepts and the development of skills. Provides an effective approach to command decisionmaking and organization. Focuses on a review of the command sequence and an overview of incident command structural firefighting. Pre-requisite: Consent of Instructor. Lecture: 1 credit (15 hours).
Components: Lecture

FRS 2063(1) Course ID:003936
Instructional Techniques for Company Officers
Designed for company officers and other fire or rescue personnel with the responsibility for conducting periodic company level or small unit training. Introduces the participant to basic instructional concepts and techniques. Emphasizes teaching principles and techniques applicable to fire and rescue service training. Includes effective communication, teaching from lesson plans, methods of instruction with emphasis on skilltraining, and adult learning. Pre-requisite: (FRS 101 and FRS 102 and FRS 103 and FRS 104 and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor.
Components: Laboratory, Lecture

FRS 2071(3.5) Course ID:003937
Company Officer
Involves information and activities needed to meet the minimum standards of Fire Service Company Officers inpracticing competencies relative to administrative and incident resolution consistent with National Fire Protection Association Code 1021. Pre-requisite: (FRS 101 and FRS 102 and FRS 103 and FRS 104 and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor. Lecture: 3.5 credits (52 contact hours).
Components: Lecture

FRS 2072(0.9) Course ID:003938
Incident Command System (ICS)
Meets the needs of fire officers and managers with responsibilities to use, deploy, implement and/or function within a departmental Emergency Management Systems. Addresses the need for incident management systems, an overview of the structure and expandability of ICS, an understanding of the command skills needed bydepartmental officers to effectively use ICS, guidelines and scenario practice on how to apply ICS, an overview of resources and information for setting up and implementing a departmental ICS. Lecture: 0.9 credits (14 contact hours).
Components: Lecture

FRS 2073(0.8) Course ID:003939
Leadership I: Strategies for Company Success
Designed to meet the needs of the company officer. Provides the participant with basic skills and tools needed to perform effectively as a leader in the fire service environment. Addresses techniques and approaches to problem-solving, identifying and assessing the needs of the company officers subordinate, running meetings effectively in the fire service environment, and decision-making for the company officer. Pre-requisite: (FRS101 and FRS102 and FRS103 and FRS104 and FRS105 and FRS201 and FRS202 and FRS203) or Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

FRS 2074(0.8) Course ID:003940
Fire/Arson Detection (Arson I)
Designed for fire officers and firefighters to improve their skills in determining fire causes at the firescene. Begins with the study of the motivation of the arsonist and progresses through to the prosecution of the crime of arson. Includes the goal of providing appropriate training to the firefighter and fire officer so as to make an impact in reducing arson throughout the nation. Pre-requisite: (FRS 101 and FRS 102 and FRS103 and FRS 104 and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

FRT Fire/Rescue Training

FRT 93(0.1 - 6) Course ID:005311
Selected Topics in Homeland Security
Examines special topics in Homeland Security offered in response to needs of citizens and emergency response personnel. Outlines and course competencies will be located in the Academic Dean’s office. Lecture: 0.1 - 6.0 credits (1.5 - 90 contact hours).
Components: Lecture

FRT 95(0.2 - 6) Course ID:004167
Special Topics in Industrial Fire Protection
This course includes subjects related to the provision of fire protection in the industrial setting, to include but not limited to: fire extinguisher operations, fire alarm systems, fire protection systems, incident fire brigade operations, and structural fire brigade operations.
Components: Lecture
Attributes: Technical

FRT 99(0.2 - 6) Course ID:004166
Special Topics in Hazardous Materials
This course includes subjects related to the response to hazardous materials incidents, to include but not limited to: hazardous materials awareness, hazardous materials operations, hazardous materials technician, and hazardous materials continuing education.
Components: Lecture
Attributes: Technical

FRT 97(0.2 - 6) Course ID:004165
Special Topics in Emergency Medical Services
This course includes subjects related to the provision of emergency medical services, to include but not limited to: CPR, first aid, first responder medical, emergency medical technician (EMT), and EMT continuing education.
Components: Lecture
Attributes: Technical

FRT 99(0.2 - 6) Course ID:004163
Special Topics in Firefighting
This course includes subjects related to fire department services, to include but not limited to: fire prevention, fire suppression, company officer leadership, communications, building construction, and cause and origin investigations.
Components: Lecture
Attributes: Technical

FSI Forensic Science

FSI 110(3) Course ID:015771
Introduction to Forensic Science with Laboratory
Introduces students to the field of forensic and investigative sciences. Focuses on the application of the scientific method of modern science to physical evidence analysis, including trace evidence, DNA analysis, ballistics, drug analysis, fibers, fingerprints, hair, tool marks, ink and other common discovery techniques. Pre-requisite: scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s) or consent of instructor. Lecture: 2.0 credits (30 contact hours)
Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Other
FYE Achieving Academic Success

FYE 100(1) Course ID:007399
Strategies for College Success
Introduces students to strategies and information that promote success in the college environment, including educational planning, campus resources, and academic success skills. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules

FYE 105(3) Course ID:007213
Achieving Academic Success
Introduces students to strategies that promote academic, personal, and professional success in the college environment. Foster a sense of belonging, promotes engagement in the curricular and co-curricular life of the college, and provides opportunities for student to develop academic plans that align with career and life goals. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules

FYE 1001(0.4) Course ID:007400
Introduction to the College Campus
Introduces students to campus resources to promote academic and personal success. NOTE: Students may not receive credit for both FE 100 and FYE 105. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

FYE 1002(0.3) Course ID:007401
Self-Management Skills
Introduces students to strategies and resources to promote personal responsibility for self-management skills. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture

FYE 1003(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

FYE 1051(1) Course ID:007403
Orientation to College
Introduces students to college policies, departments, student organizations and technology to promote academic and personal success. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 1.0 credit (15 contact hours).
Components: Laboratory

FYE 1052(1) Course ID:007404
Education and Career Planning
Introduces students to skills and resources needed to achieve academic and career success. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

FYE 1053(1) Course ID:007405
Academic, Financial, and Personal Skills
Introduces students to skills and resources needed to develop responsibility for personal, classroom, and academic success. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN General College Studies

GEN 91(3) Course ID:007368
Foundations of Information Literacy
Introduces information literacy skills. Focuses on skills related to defining information needs, finding sources, using information to solve problems, organizing and presenting information, and evaluation. Pre-requisite: COMPASS Reading Score of 60+ OR English Score of 59+. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Reading

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

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: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 103(1) Course ID:005328
Instructor Consent Required Principles of Peer Mentoring
Focuses on the study of issues, topics, and strategies related to mentoring first-year students. Relevant student development theory is highlighted. Prepares peer mentors to assist in teaching a section of GEN 100. 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-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 students to practice concepts while developing an appreciation of service. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

GEN 122(1) Course ID:003871
The Exemplary Tutor
Trains college students to be effective tutors by introducing ethics and philosophy of tutor-tutee relationships and concepts of questioning, learning styles, problem solving, active listening, goal setting, and critical thinking. Can be taken 1 time for a total of 1 credit. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

GEN 123(1 - 3) Course ID:003872
The Exemplary Reading Tutor
Provides credit for students wishing to tutor in reading or reading based courses as related to the reading expectations in the KDE Core Curriculum. Grants credit of 1 hour for 45 hours of tutoring, 2 credits for 90 hours of tutoring, and 3 hours for 120 hours of tutoring. May be repeated for a total of 6 credits. Pass/Fail. Pre-requisite: GEN 122.
Components: Laboratory, Lecture
Attributes: Other

GEN 125(3) Course ID:006590
Applied Meta-Thinking
Develops critical thinking skills and literacy processes across disciplines utilizing communication and appropriate applications in making self-paced, self-directed decisions and judgments. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

GEN 130(3) Course ID:005055
Introduction to Information Resources
Introduces students to effective and efficient use of information resources through development of search 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 131(1) Course ID:005524
Basic Library Research and Resources
Introduces students to effective and efficient use of information resources through development of search 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: SB - Social Behavior Science, Course Also Offered in Modules

GEN 150(1) Course ID:000589
Basic Computer Skills
Provides an introduction to commonly-used computing functions, emphasizing information processing, hands-on experience, and software packages. (This course does not meet the KCTCS computer literacy requirement.). Components: Laboratory.
Attributes: Computer Literacy, Other

GEN 173(3) Course ID:006594
Career and Life Skills Development
Investigates the importance of appropriate social behavior and interaction in the workplace. Presents skill 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
Introduces students to lifelong learning skills in complex systems as a whole to interact and communicate with others to promote successful outcomes. Pre-requisite: GE 175 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
GEN 1021(1) Course ID: 007078
College Basics & Learning Styles
Provides instruction directly related to integrity, planning, alignment, decision-making, foster understanding, change management, relationships, internal locus of control, trust, respect, image-projection, influence, and building a following. Pre-requisite: GEN 1401 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

GEN 1022(1) Course ID: 007079
Critical Reading and Thinking
Presents basic approaches for effective customer service skills. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture

GEN 1251(1) Course ID: 0056591
Transmission Connections
Introduces various forms of communication. Provides skills for understanding verbal and nonverbal communication and reflection on experiences. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 1252(1) Course ID: 0056592
Learning Skills Application
Provides skills for thinking critically and creatively, connecting prior learning, using reciprocal relationships, and interpreting information. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 1253(0.3) Course ID: 006590
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, foster understanding, change management, relationships, internal locus of control, trust, respect, image-projection, influence, and building a following. Pre-requisite: GEN 1401 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

GEN 1402(1) Course ID: 015782
Exploration and Analysis
Pre-requisite: GEN 1401. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1403(1) Course ID: 015783
Summary and Reflection
Pre-requisite: GEN 1402. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1751(0.4) Course ID: 006595
Career Planning Using Technology
Provides instruction directly related to integrity, planning, alignment, decision-making, foster understanding, change management, relationships, internal locus of control, trust, respect, image-projection, influence, and building a following. Pre-requisite: GEN 1401 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

GEN 1752(0.4) Course ID: 006596
Exploring Employment Strategies
Pre-requisite: GEN 1402. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1753(0.4) Course ID: 006597
Business Basics
Provides skills for reasoning, open dialogue with diverse cultures, and complex systems. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

GEN 1754(0.4) Course ID: 006598
Customer Service
Pre-requisite: GEN 1402. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1755(1) Course ID: 006599
Workplace Transitions
Provides instruction directly related to integrity, planning, alignment, decision-making, foster understanding, change management, relationships, internal locus of control, trust, respect, image-projection, influence, and building a following. Pre-requisite: GEN 1401 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

GEN 1756(0.4) Course ID: 006600
Workplace Skills
Provides skills for reasoning, open dialogue with diverse cultures, and complex systems. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.3 credits (4.5 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 interconnected relationships between atmospheric processes involving energy, pressure, and moisture; weather and climate; and terrestrial processes of vegetative biomes, soils, and landscape formation and change. Fulfills elementary certification requirements in education, and USP cross-disciplinary requirement.
Components: Lecture
Attributes: SN - Science

GEO 152(3) Course ID: 000388
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: 000442
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 different from the West. Considers significant issues including sustainable development, environment, human rights, and gender
resources, as well as the effects, solutions, and causes of pollution. Pre-requisite or Co-requisite: GLY 110. Lab: 1.0 credit (30 contact hours).

**Components:** Laboratory
**Attributes:** SL - Science Laboratory

**GLY 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 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:** Other

**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

**GLY 140(3) Course ID:016864**
**Introduction to Oceanography**
Investigates geologic, physical, biogeochemical, and biologic processes that occur within the oceans of the world. Emphasizes connections between these processes and how those connections interact with our planet’s life. Explores geologic evolution of the ocean floor, dynamic connection of ocean water, lithosphere, and the hydrosphere, marine life and ecosystems, and the impact of human activity on marine ecosystems. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Other

**GLY 220(4) Course ID:000847**
**Principles of Physical Geology**
Learn how the Earth works: an integrated course in physical geology, covering the physical, chemical, and biological processes that combine to produce geological processes. Focuses on plate tectonics, earth surface processes, and properties and formation of earth materials. Lab exercises emphasize identification and interpretation of geologic materials, geologic maps and cross sections. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).

**Components:** Lecture
**Attributes:** SL - Science Laboratory, SN - Science

**HCI Health Care**

**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:** Other

**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 health care 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 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 (glove strategies). Pre-requisite or Co-requisite: HCS 200 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

HCS 258(1) Course ID: 016981
Health IT Instructional Design
Examines Health IT instructional design 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 150 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Technical

HEO 106(7) Course ID: 001522
Motor Grader 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
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/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, 25, 20, 10; Facility Guidelines Institute (FGI) Guidelines; The Joint Commission Standards for accreditation; and how to maintain standard specific documentation and checklists for accreditation surveys. Develops and maintains medical equipment and utility system programs. Develops and conducts environmental rounds and surveys. Develops standard specific policies and procedures, such as National Fire Protection Association (NFPA) 99 electrical equipment safety inspection requirements. Pre-requisite: HFL 130 Compliance, Codes and Standards I. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 240(3) Course ID:015668
Maintenance and Operations II
Examines the administration and coordination of work order processes to include preventive maintenance, corrective maintenance, moves, and projects. Applies equipment risk assessments in developing a maintenance program. Tests, monitors, and documents air quality, air exchange, and pressure relationships. Maintains control and key control systems. Manages policies and procedures. Develops competency based training programs. Manages low voltage systems. (Nurse call, Closed Circuit Televisions 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 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 occupational 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 102(3) Course ID:004303
Archives Studies: Characteristics & Overview
This course provides an introduction to the profession of archives studies. In addition to the history, development, and nature of work in the profession, the basics of collections management and development, intellectual control, preservation, and technological applications will be presented.
Components: Lecture Attributes: Technical

HIM 104(3) Course ID:004304
Museum Studies: Characteristics & Overview
This course provides an introduction to the profession of museum studies. Course topics include the history, development, and nature of work in the profession; the basics of collections management and development; intellectual control; exhibit design; preservation; and technological applications.
Components: Lecture Attributes: Technical

HIM 106(3) Course ID:004305
Records Management: Characteristics & Overview
This course provides an introduction to the profession of records management. In addition to the history, development, and nature of work in the profession, the course will present the basics of files and forms management, records inventory and analysis, scheduling and repography, electronic records and record center operation.
Components: Lecture Attributes: Technical

HIM 210(3) Course ID:004306
Archives Studies: Appraisal & Accessioning
This course provides an in-depth examination of the information acquisition and accession process in archivestack. Topics covered include intellectual content, documentation strategies, appraisal theories, and accessioning practices. Students are expected to complete an accession record, including records transmittal form, deed of gift, and accession form. Pre-requisite: HIM 102.
Components: Lecture Attributes: Technical

HIM 214(3) Course ID:004308
Archives Studies: Preservation & Conservation
This course provides an in-depth analysis of the conservation and preservation issues confronting archivestaff. Included in this course are the impact of environmental conditions upon collections, problems associated with various records media and formats, conservation and working with conservators, security, and emergency mitigation and response procedures. Each student is expected to prepare an archives emergency response plan. Pre-requisite: HIM 102.
Components: Lecture Attributes: Technical

HIM 216(3) Course ID:004309
Archives Studies: Automation & Electronic Records
This course is designed to provide students with an in-depth understanding of automation practices for archives. Topics covered in this course include database theory, design and development, as well as data field content and structure as they relate to archives automation. In addition to creating a complete archival catalog record, students will generate an automated accession report, collection description with appended image, and container list. Pre-requisite: HIM 102.
Components: Lecture Attributes: Technical

HIM 230(3) Course ID:004310
Museum Studies: Collections Care & Management
This course provides an in-depth analysis of the curatorial needs of museum collections. Topics covered include collection policies and development, accessioning, registration, preservation, exhibiting and ethical considerations regarding deaccessioning and collection sales. Pre-requisite: HIM 104.
Components: Lecture Attributes: Technical

HIM 232(3) Course ID:004311
Museum Studies: Conservation and Preservation
This course provides an in-depth analysis of the conservation and preservation issues confronting museum staff. Included in this course are the impact of environmental condition upon collections, problems associated with historic structures, artifact conservation and working with conservators, security, and emergency mitigation and response procedures. Each student is expected to prepare a museum emergency response plan. Pre-requisite: HIM 104.
Components: Lecture Attributes: Technical

HIM 234(3) Course ID:004312
Museum Studies: Exhibits
This course provides an extensive analysis of the issues presented in the display of a museum's collections. Topics covered include exhibit planning, design, fabrication, installation, and interpretation. Ethical considerations and cultural sensitivity issues regarding the presentation of artifacts will also be addressed. Pre-requisite: HIM 104.
Components: Lecture Attributes: Technical

HIM 252(3) Course ID:004315
Electronic Records Management
This course provides in-depth coverage of the process by which electronic records are created and managed. Topics covered in the course include identification and analysis of electronic records for scheduling, and the use of database systems for monitoring compliance with scheduling and disposition of electronic and paper-based records. Students will be expected to design, develop, and implement a database for tracking records schedule compliance. Pre-requisite: HIM 106.
Components: Lecture Attributes: Technical
HIM 254(3) Course ID:004316
Records Reproduction & Imaging Systems
This course provides in-depth analysis of information reproduction systems for the management, preservation, and access of records. Students will master the appropriate use of a variety of image reproduction formats, quality control standards associated with each format, and the cost/benefit considerations appropriate for each image reproduction format. Pre-requisite: HIM 106.
Components: Lecture
Attributes: Technical

HIS 101(3) Course ID:004493
World Civilization I
Presents a multicultural survey of world cultures and global issues from ancient 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:000660
A History of Europe Through the Mid-Seventeenth Century
Surveys the development of European politics, society, and culture from the beginnings of civilization through the Age of Religious Conflict. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 105(3) Course ID:000834
A History of Europe from the Mid-Seventeenth Century to the Present
Surveys the development of European politics, society, and culture from the Age of Absolutism to the present. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 106(3) Course ID:000532
Western Culture: Science and Technology
Surveys the interactions of science and technology with the social and cultural development of Western civilization to the Industrial Revolution. Emphasizes the values in scientific inquiry as compared with other kinds of inquiry and the importance of science and technology in modifying social organization and human expectations.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 107(3) Course ID:000555
Western Culture: Science and Technology
Surveys the interactions of science and technology with the social and cultural development of Western civilization since the Industrial Revolution. Emphasizes the values in scientific inquiry as compared with other kinds of inquiry and the importance of science and technology in modifying social organization and human expectations.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 108(3) Course ID:000452
History of the United States Through 1865
Examines key political, economic, and social topics that have significantly influenced the American experience from the pre-colonial period through the Civil War era. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

HIS 109(3) Course ID:000171
History of the United States Since 1865
Examines key political, economic, and social topics that have influenced significantly the American experience from Reconstruction through the contemporary era. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

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 conflict/military, diplomatic, political, social, and economic dimensions.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 202(3) Course ID:000828
History of British People Since the Restoration
Examines the major political, social, economic, and cultural developments in British history from the Stuart to the present. Includes examination of such topics as the Glorious Revolution, Imperial Wars, American Revolution, Napoleonic Wars, Industrial Revolution, Imperialism, World War I, Great Depression, World War II, Cold War, Decolonization, Post-War Britain, and the European Union.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 203(3) Course ID:000516
History of the British People Since the Restoration
Examines the major political, social, economic, and cultural developments in British history from the Stuart to the present. Includes examination of such topics as the Glorious Revolution, Imperial Wars, American Revolution, Napoleonic Wars, Industrial Revolution, Imperialism, World War I, Great Depression, World War II, Cold War, Decolonization, Post-War Britain, and the European Union.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 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 struggle for independence of the indigenous peoples of the New World, the establishment of Spanish and Portuguese institutions, the relations between the Church and the State, the encomienda and the hacienda, slavery and the impact of the Bourbon Reforms on Latin America.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 207(3) Course ID:002220
History Modern Latin America, 1810 to Present
Covers the history of the Latin American nations focusing on their social, economic, political and cultural development. Emphasizes the history of the independence movements, nation building, the struggle for modernization, and the phenomenon of revolution since 1810.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 215(3) Course ID:015616
Historical Perspectives on Prisons and Police Work
Examines historical development of laws codes, police work and prisons since the ancient world, with emphasis on the pre-contact 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 220(3) Course ID:007417
Native American History: Pre-Contact to 1865
Examines the American experience from the pre-colonial period through the Civil War era. Emphasizes the indigenous Native American culture and society, the Columbian and biological exchange, Indian-Anglo cultural interactions, the construction and reconstruction of Indian identities, U.S. Indian policy development, and forced Indian removal. Lecture: 3 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
Examines the American experience from 1865 to the present. Emphasizes the indigenous Native American culture and society, Indian Anglo cultural interactions, the construction and reconstruction of Indian identities, and the struggles for American sovereignty. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 240(3) Course ID:000439
History of Kentucky
Surveys the state's history from the time of the Native Americans to the present.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 247(3) Course ID:000651
History of Islam and Middle East Peoples, 500-1250
Examines the major themes of family, work, social ideas about gender, and the professionalization of cures for criminal behavior, and the professionalization of cures for criminal behavior, and the professionalization of cures for criminal behavior.
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
Examines the state's history from the time of the Native Americans to the present.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 254(3) Course ID:000670
History of Sub-Saharan Africa
Examines the origins and development of the Islamic civilization from the time of the Prophet Muhammad to 1250, with special emphasis on the role of the Arab, Iranian, and Turkic peoples.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 260(3) Course ID:000680
African American History to 1865
Examines the African American experience through the Civil War. Examines African heritage, slavery, and growth of African American institutions.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 261(3) Course ID:000693
African American History 1865 - Present
Examines the African American experience from Reconstruction to the present, with emphasis on the rise of segregation, the Civil Rights Movement, and race relations into the twenty-first century.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 265(3) Course ID:000705
History of Women in America
Surveys the history of American women, with particular emphasis on the mid-19th century to the present. Includes the major themes of family, work, social ideas about women, and feminism. Pre-requisite: HIS 109 or consent of instructor.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 266(3) Course ID:005481
History of American Women to 1920
Examines the American experience from Reconstruction through the contemporary era. Emphasizes the fight for women's suffrage to 1920.
Includes American Indian women, immigrant women, the changing nature of the family and work, and societal ideas about women. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

HIS 267(3)  Course ID:005482
History of American Women from 1920
Emphasizes equal rights and the civil rights movements. Includes the rejection of feminism in the 1920s, and 1970s, the changing nature of the family and work, and societal ideas about women. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HIS 271(3)  Course ID:005262
Medieval Europe
Surveys European history from the fourth century through the fifteenth century. Lecture: 3 credits (45 contact hours).

Pre-requisite: Sophomore standing.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 295(3)  Course ID:000749
East Asia to 1800
Presents a survey of Chinese, Japanese, and Korean history from the earliest times to 1800. Emphasizes political, economic, social, and intellectual developments.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 295(3)  Course ID:000753
History of Asia II
Surveys the major civilizations of Asia. Focuses on the key political, social and cultural developments of the major peoples from the beginnings of western influence in Asia to the present. Pre-requisite: Sophomore standing or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 298(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

HIS 101(1)  Course ID:016360
Early Civilizations
Presents a multicultural survey of world cultures and global issues from the birth of civilization to the Roman Republic. Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 102(1)  Course ID:016361
Ancient Empires and Cultures
Presents a multicultural survey of world cultures and global issues from the Roman Republic to the rise of Islam. Pre-requisite: His 1011. Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 103(1)  Course ID:016362
Rise of the Modern World
Presents a multicultural survey of world cultures and global issues from the rise of Islam through the Renaissance. Pre-requisite: HIS 1011 and HIS 1012. Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 1021(1)  Course ID:016363
The Modern World 1500-1750
Presents a multicultural survey of world cultures and global issues from 1500 to 1750. Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 1022(1)  Course ID:016364
Revolutions and Imperialism
Presents a multicultural survey of world cultures and global issues from 1750 to 1914. Pre-requisite: HIS 1021. Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 1023(1)  Course ID:016365
World Wars and Globalization
Presents a multicultural survey of world cultures and global issues from 1914 to the present. Pre-requisite: HIS 1021 and HIS 1022. Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 1081(0.75)  Course ID:006235
Colonial America
Examines key political, economic, and social topics from the pre-colonial period through settlement and colonization that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1082(0.75)  Course ID:006236
The Early 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

HIS 1083(0.75)  Course ID:006237
Growth and Prosperity
Examines key political, economic, and social topics during the Antebellum period that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1084(0.75)  Course ID:006238
Sectionalism and Civil War
Examines key political, economic, and social topics from sectional conflict through the Civil War that has significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1091(0.75)  Course ID:006239
History of the United States through the Gilded Age
Examines key political, economic, and social topics from Reconstruction through the Gilded Age that has significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1092(0.75)  Course ID:006240
History of the United States from Imperialism through World War I
Examines key political, economic, and social topics from the Progressive Era through World War I and the 1920s that have significantly influenced the American experience. Pre-requisite: HIS 1091. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1093(0.75)  Course ID:006241
History of the United States from the Twenties to the Onset of the Cold War
Examines key political, economic, and social topics from the Depression and New Deal through World War II that have significantly influenced the American experience. Pre-requisite: HIS 1092. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1094(0.75)  Course ID:006242
History of the United States during the Cold War to the Present
Examines key political, economic, and social topics from the Cold War and Civil Rights through the Rise of Conservatism that have significantly influenced the American experience. Pre-requisite: HIS 1093. Lecture: 0.75 credits (11.25 contact hours).

Components: Lecture

HIT Health Information Technology

HIT 100(3)  Course ID:004260
Introduction to Health Information Technology
Incorporates key organizational, financing, and delivery of health care services within a variety of settings. Explores the roles of a health information professional, an introduction to legal aspects of insurance billing and the role of the State Insurance Commission. Covers information on the generic components of the content, structure, collection, maintenance, and dissemination of health care data and how these components relate to record systems and documentation standards. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or Release of Information Data Specialist Certificate by special permission of the Program Coordinator and ((CLA 131 or AHS 115 or MIT 103)). Minimum grade of C. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HIT 104(3)  Course ID:004262
Pathophysiology of Human Disease
An overview of pathophysiology content and teaching materials as they relate to the health information field. A review of disease terminology, pathology, clinical presentation, surgical and diagnostic procedures and treatment modalities. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate Program or by special permission of the Program Coordinator and ((CLA 131 or AHS 115 or OST 103) and (BIO 137) with a grade of C or better). Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HIT 105(4)  Course ID:007081
Pathophysiology / Pharmacology for Health Information Professionals
Provides an overview of pathophysiology content, review of disease terminology, and clinical presentation with the application of pharmacology to treat human diseases and disorders as it relates to the field of health informatics technology. Pre-requisite or Co-requisite: [HIT 100 and (BIO 135 or BIO 137) and (CLA 131 or AHS 115 or MIT 103)]. Minimum grade of C. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

HIT 106(2)  Course ID:004263
Pharmacology for Health Information Professionals
Application of pharmacology to the treatment of human diseases and disorders as it relates to the field of health informatics technology. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate Program or by special permission of the Program Coordinator and ((CLA 131 or AHS 115 or OST 103) and (BIO 137) with a grade of C or better). Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: Technical

HIT 109(4)  Course ID:007083
Clinical Classification Systems I
Applies current government-mandated diagnosis and procedure coding systems in a health care setting. Pre-requisite: HIT 105. Minimum grade C. Pre-requisite or Co-requisite: BIO 139 (if BIO 137 taken), Minimum grade C. Lecture: 4.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory
Attributes: Technical

HIT 110(2)  Course ID:004265
Legal & Ethical Issues in Health Information
Includes legal principles and issues that govern health information management and patient medical records. Covers ethical issues as they relate to the security and dissemination of patient health information and corporate compliance programs. 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 applicable 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. (Computer/Digital Literacy: HIT 135 or HIT 137 and HIT 100 and HIT 105). Minimum grade of C. Pre-requisite Or Co-requisite: BOC 139 (if BOC 137 was taken). Minimum grade of C. Lecture: 2.5 credits (37.5 contact hours). Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 114(2) Course ID:004267
Clinical Practicum I
Includes the clinical practice of medical records review and documentation within a health information department. Provides students with the opportunity to assist personnel in the legal and ethical collection and dissemination of health care data including the use of registries and indexes. Pre-requisite: Admission to the Health Information Technology Program or by special permission of the Program Coordinator. Computer Literacy and [BOC 139 and HIT 100 and HIT 110 and HIT 112]. Minimum grade of "C". Pre-requisite Or Co-requisite: CIT 130 or OST 240). Minimum grade of C. Lecture: 2.5 credits (37.5 contact hours). Lab: 0.5 credits (15 contact hours).
Components: Practicum
Attributes: Technical

HIT 200(3) Course ID:004268
Information Systems in Health Care
Covers the concepts of computer technology related to the healthcare industry and the tools and techniques for collecting, storing, retrieving, and analyzing health care data. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or by special permission of the Program Coordinator and (HIT 109 and HIT 110 and HIT 112). Minimum grade of "C". Pre-requisite Or Co-requisite: CIT 130 or OST 240). 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. (Computer/Digital Literacy and HIT 109). Minimum grade of C. Pre-requisite Or Co-requisite: (BOC 139 if BOC 137 was taken). Minimum grade of C. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 204(2) Course ID:004270
Quality Assessment In Health Information
Principles of quality assessment as they relate to health information technology. Includes data collection and analysis, implementation of quality improvement processes, and a review of regulatory and accreditation organizations. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Successful completion of (HIT 108 and HIT 110 and HIT 112 and HIT 114) with a grade of C or better. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HIT 205(3) Course ID:007084
Quality Mgmt & PI - Health Info
Examines principles of performance improvement as it relates to health information technology. Integrates data collection, analyses, evidence-based care, implementation of performance improvement processes, and examines regulatory, accrediting organization, and payer requirements including payment. Pre-requisite Or Co-requisite: HIT 109 and HIT 110. Minimum grade of C. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HIT 206(2) Course ID:004271
Clinical Classification Systems III
This course introduces the advanced application of clinical classification systems in the reimbursement for health care services. Included in the course will be a review of fraud, abuse, and regulatory agencies. Students will use a microcomputer and software to apply medical coding procedures. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Completion of HIT 202 with a grade of C or better. Lecture: 1.5 hours. Lab: 1 hour.
Components: Laboratory, Lecture
Attributes: Technical

HIT 207(3) Course ID:007085
Clinical Classification Systems IV
Introduces the advanced application of clinical classification systems in the reimbursement for health care services and specialties such as RBVRS, 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 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 210(2) Course ID:004272
Clinical Coding Practice
Introduces the student to the clinical practice of medical record coding procedures. Provides an opportunity to observe professional and ethical behavior standards within a health information department. Code medical records for reimbursement and practice appropriate security measures. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Successful completion of HIT 108, HIT 110, HIT 112, HIT 202, HIT 206 with a grade of C or better. Practicum: 1.0 credits (90 contact hours).
Components: Practicum
Attributes: Technical

HIT 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. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator, and (MT 110 or MT 150) and (CIS 130 or OST 240) and (HIT 200 and HIT 202 and HIT 204) with a grade of C or better. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HIT 212(2) Course ID:004274
Health Care Organization and Supervision
This course introduces the principles of organization, supervision, leadership, motivation, and team building within the health information environment. Included in the course will be a review of reimbursement, ergonomics, contracts, marketing, education, and training. Pre-requisite: Admission to the Health Information Technology Program or by special permission of the Program Coordinator. Successful completion of HIT 200, HIT 202, and HIT 204 with a grade of C or better. Lecture: 2.0 credit hours.
Components: Lecture
Attributes: Technical

HIT 214(3) Course ID:004275
Clinical Practicum II
This course introduces the student to the clinical practice of medical records review, documentation, and supervision within a health information department. The student will observe and assist personnel in all areas of job responsibility within the Health Information Management department. Pre-requisite: Admission to the Health Information Technology Program or by special permission of the Program Coordinator. Completion of HIT 200, HIT 202, and HIT 204 with a grade of C or better. Lab: 9 hours.
Components: Practicum
Attributes: Technical

HIT 215(4) Course ID:007087
Clinical Practicum
Introduces the student to the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Observes and assists personnel in assigned areas of job responsibility within the HIM Department. Provides student with onsite project. Exposes student to HIM roles in other departments (e.g., quality, CDM, Cancer Registry, compliance, risk management). Pre-requisite: (HIT 200 and HIT 202 and HIT 204. Minimum grade of "C") or Consent of Program Coordinator. Practicum: 4.0 credits (180 contact hours).
Components: Practicum
Attributes: Course Also Offered in Modules, Technical

HIT 298(0.5 - 4) Course ID:007090
Selected Topics in Health Information Technology: (Topic)
Addresses various health information technology topics, issues, and trends. Includes topics that may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of four credit hours. Lecture: 0.5 - 4.0 credits (7.5 - 60.0 contact hours). Lab: 0.5 - 4.0 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 societal 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: HIMS 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 200(3)** Course ID: 000784

**Dynamics of 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 210(3)** Course ID: 000617

**Drugs, Society, & Human Behavior**
Focuses on crisis intervention therapy, 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 211(3)** Course ID: 005583

**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; Course Equivalents: SWK 255
Attributes: Technical

**HMS 212(3)** Course ID: 005585

**Crisis Intervention**
Focuses on crisis intervention therapy, suicide prevention, and crisis 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: 005588

**Cultural Diversity in Human Services**
Examines current and historical cultural diversity in human services. 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 225(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 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, eco-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 MNA 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 250(4)** Course ID: 000080

**Clinical Practice in Human Services**
Provides practice and application of principles and skills previously learned in 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 259(1 - 3)** Course ID: 000522

**Special Topics in Human Services: (Topic)**
Provides an in-depth knowledge of a Human Services topic and allows students' choices with coordinator/instructor's approval on an issue of instruction. Lecture: 1.0 credits (15-45 contact hours, clinical: 1.0 credits (60-180 contact hours).

Components: Lecture
Attributes: Technical

**HNR Honors**

**HNR 101(3)** Course ID: 004909

**Intro to Contemporary Thought**
Introduces the development and impact of contemporary social, scientific, and philosophical thought from an interdisciplinary perspective. Gives attention to various historical and modern figures, relating their ideas and theories to our contemporary understanding of a variety of issues. Pre-requisite: Admission in the Honors Program. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

**HON Honors**

**HON 101(3)** Course ID: 000892

**The Ancient World**
From Greek and Roman antiquity to the early Christian centuries: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Pre-requisite: Membership in the Honors Program.

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. Written assignments required. Pre-requisite: Membership in the Honors Program.

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.

Components: Lecture
Attributes: AH - Arts and Humanities

**HOS Hospitality Management**

**HOS 100(3)** Course ID: 002365

**Introduction to Hospitality Management**
Introduces an overview of the hospitality industry. Examines the historical perspective and tracks current events. Examines the structure of the industry including chains, franchising, ownership, and management. Explores the inner workings of various components of lodging, foodservice and entertainment organizations. Demonstrates real-world application through industry examples and case studies which are used extensively.

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 planning, and crisis communications.

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 always 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 226(3) Course ID:002370
Tourism Marketing
Examines how and why tourists make destination choices, and how to develop a strategic marketing system that emphasizes your destination’s distinctive appeal. Answers questions of how to assess visitor markets, gather and analyze data, reduce risk and gain competitive advantages, and turn analysis into sound decisions. Applies knowledge from case studies, and practical tips for stretching marketing dollars through better monitoring, cost controls, and evaluation. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HPH Health Physics

HPH 100(3) Course ID:006324
Health Physics Fundamentals
Introduces the fundamentals of atomic and nuclear physics, algebra, unit analysis, and team dynamics required within an organization that handles radioactive substances. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HPH 101(3) Course ID:000888
Health Physics I
Introduces the principles of health physics to include atomic and nuclear physics, radiolucity, and ionizing radiation and its biological effects. Pre-requisite: (MAT 150 and PHY 152) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HPH 102(3) Course ID:000762
Health Physics II
Introduces internal and external dosimetry, shielding, radiation detection, and environmental monitoring. Pre-requisite: HPH 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HPH 120(3) Course ID:000346
Radiation Biology
Examines the cellular response, pathology, and short- and long-term effects of ionizing radiation on living tissue. Pre-requisite: (BIO 112 and BIO 113) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HPH 201(4) Course ID:000885
Nuclear Instrumentation and Measurement I
Introduces the principles of operation and use of portable radiation survey instruments, counting room instrumentation including GM and proportional counters, and liquid scintillation. Introduces gamma ray spectroscopy. Pre-requisite: HPH 102. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

HPH 202(4) Course ID:000824
Nuclear Instrumentation and Measurement II
Introduces multi-channel analyzers in alpha, beta and gamma spectroscopy. Involves techniques to identify and quantify radioactive materials. Pre-requisite: HPH 201. Lecture/Lab: 4.0 credit hours (90 contact hours).
Components: Lecture
Attributes: Technical

HPH 246(2) Course ID:000515
Environmental Law
Surveys federal and state environmental legislation, the role of governmental agencies responsible for implementation of statutes, and simulations of regulation enforcement situations. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HPT Historic Preservation Technology

HPT 100(3) Course ID:005299
Introduction to Historic Preservation
Introduces historic preservation theory, history, and standards of practice through national and local case studies; related national and local agencies, organizations and legislation; and research of early American architecture. Co-requisite: HPT 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

HPT 101(2) Course ID:006963
Introduction to Historic Preservation Lab
Provides an opportunity to practice historic preservation theory through on-site research, site surveys and recording techniques with an emphasis on assessing and planning rehabilitation and maintenance. Co-requisite: HPT 100. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

HPT 120(2) Course ID:005297
Traditional Woodworking
Presents traditional woodworking techniques, safe maintenance, and use of hand and power tools with hands-on training in fitting, fastening, and finishing a wood project. Lecture/Lab: 2.0 credits (52.5 contact hours).
Components: Lecture
Attributes: Technical

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

HPT 202(2) Course ID:006965
Window Restoration and Repair
Presents the process for the removal, repair, and reinstallation of windows in historic properties, including types and components, energy efficiency, safe work practices, basic tools, and glazing techniques. Pre-requisite: ISX 100 or ISX 101 or Consent of Instructor. Lecture/Lab: 2.0 credits (52.5 contact hours).
Components: Lecture

HRT Horticulture

HRT 103(2) Course ID:004340
Introduction to Horticulture
This course introduces the practical approach to the study of horticulture. Students will learn the practices of horticulture and the purpose of plants for food, comfort, and beauty. Lecture: 3.0 credit hours.
Components: Lecture
Attributes: Technical

HRT 104(4) Course ID:001534
Introduction to Herbaceous Plants
Covers the care, culture and distinguishing characteristics of herbaceous plants including the scientific and common names of many of the most common herbaceous plants including pests common to these plants. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

HRT 108(4) Course ID:001535
Introduction to Woody Plants
Covers the care, culture, and distinguishing characteristics of woody plants including the scientific and common names of many of the most common landscape woody plants. Examines pests that are common to these plants. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

HRT 110(4) Course ID:001536
Nursery Management
This course provides an introduction to the nursery industry. It includes information on soils, plant growth, nutrition and propagation methods, comparison of field and container growing practices; comparison of pestcontrol methods; storing, grading and marketing nursery stock and the importance of keeping records and accounts.
Components: Lecture
Attributes: Technical

HRT 120(4) Course ID:001538
Turf Management
Focuses on the identification, care, and culture of cool and warm season turf plants including how to calculate an area for seed or sod, identification of insects, weeds,
diseases and the proper control measures for each, and the development of a schedule for good turf maintenance and renovation for turf areas. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Technical

HRT 130(3) Course ID:001539
Landscape Maintenance
Introduces basic techniques for landscape management including pruning and planting techniques, safe workingpractices in the landscape and pest management. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HRT 131(2) Course ID:001540
Landscape Maintenance Lab
Applies knowledge of equipment, technology, and safety issues related to landscape maintenance, and the use of general math skills in computations used in the landscape including pesticides, fertilizers, and IPM systems used in maintaining the landscape, soils, and construction of various hard surface features. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

HRT 150(3) Course ID:001543
Horticulture Business Management
This course introduces various career opportunities in a garden center and focuses on salesmanship and business practices utilized in this environment. Identification of characteristics, usage and care of woody ornamentals, annual and perennial plants, as well as use and care information needed by the consumer are included. Assisting customers in choosing chemical pesticides and plant related products is discussed.

Components: Lecture

HRT 160(4) Course ID:005263
Retail Floral Design
Provides information and skills for successful employment in the florist industry including business management, cost analysis and marketing, materials, containers, tools, and flowers. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Technical

HRT 161(2) Course ID:005264
Retail Floral Design Lab
Applies design principles and small business operations. Uses fresh and artificial floral products to creates display. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

HRT 210(4) Course ID:001545
Landscape Design
Introduces the basic principles and practices of landscape design including the use of drawing equipment. Topics include the creation of design symbols and the development of a client needs and site analysis plan. Emphasis is placed on the ability to read landscape drawings and install plants from the design plan. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Technical

HRT 240(4) Course ID:001547
Greenhouse Management
Topics include the identification and function of a plant's leaves, roots and stems; as well as identifying major plant processes and sexual reproduction parts. The 16 essential elements and how they effect plant growth are discussed. Identification of diseases, insects and plant disorders in the greenhouse are included. Development of growing schedules for the following crops are completed: poinsiettas, chrysanthemums, Easterilies, bedding plants and hanging baskets. Injectors are calibrated using various fertilizer and chemicaltrats. Pre-requisite/Co-requisite: HRT 140

Components: Lecture
Attributes: Technical

HRT 241(2) Course ID:001548
Greenhouse Management Lab
This course is an introduction to the tools, equipment, procedures, supplies and safety issues related to greenhouse management. Other tasks are assigned as the season dictates. Pre-requisite/Co-requisite: HRT 240.

Components: Laboratory
Attributes: Technical

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 profession/careers and allied health and sciences educational programs. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Technical

HSE Health Sciences Education

HSE 100(3) Course ID:005518
Introduction to Homeland Security
Introduces the history and organizational development of the US Department of Homeland Security. Examines theories and functions of the components of Homeland Security and their relationships to state and local agencies. Examines current trends and career opportunities in homeland security. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

HSM Homeland Sec Emergency Management

HSM 100(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

HSM 1003(1) Course ID:016173
Homeland Security Trends
Examines with greater depth the roles and functions of the components of Homeland Security and the relationships to state and local agencies with an emphasis on investigating current trends and career opportunities in the field of homeland security. Pre-requisite: HSM 1002. Lecture: 1.0 credits (1.0 contact hours).

Components: Lecture

HST Health Care Foundations

HST 101(3) Course ID:007362
Health Care Basic Skills I
Introduces student to basic health care skills such as measuring and recording vital signs, assisting licensed personnel, observing and reporting patient conditions, collecting specimens and care for the hygiene, comfort, and safety of patients in various settings.

Prepares the student for entry-level healthcare positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).

Components: Laboratory, Lecture

HST 102(3) Course ID:007363
Health Care Delivery & Management
Introduces delivery and management of health care including professionalism, health care roles, health care delivery models, and types of health care coverage. Examines legal/ethical issues including HIPAA and confidentiality, electronic medical records and patients' rights as well as analysis of current trends in health care today. (Appropriate for any student considering entering the Allied Health or Nursing field). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HST 103(2) Course ID:007364
Health Care Communication
Introduces communication and its various forms as it exists in the health care field. Focuses on verbal, nonverbal, written and oral communication between members of the health team, patient, and caregivers through an interdisciplinary approach. Examines each role with discussion from the perspective of the involved parties. Emphasizes diversity, sociocultural influences, and teamwork. Includes discussion of the media's role in healthcare, as well as how health promotion campaigns may be implemented and managed. Appropriate for anyone interested in a career in allied health or nursing. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

HST 104(3,5) Course ID:015849
Health Care Basic Skills I with Clinical
Introduces student to basic healthcare skills such as: measuring and recording vital signs, assisting licensed personnel, observing and reporting patient conditions, collecting specimens and care for the hygiene, comfort, and safety of patients in various settings. Prepares the student for entry level healthcare positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Pre-requisite for the State Registered Nurse Aide examination. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours). Clinical: 0.5 credits (23 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Technical

HST 121(2) Course ID:007365
Pharmacology
Introduces students to the basics of pharmacology/pharmacokinetics, include terms used to describe various effects and reactions from drug usage. Will also introduce metric system and basic dosage calculations commonto most fields of study within allied health and nursing. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

HST 122(3) Course ID:007366
Clinical Pathophysiology
Introduces an introduction to the nature of disease and its effect(s) on body systems. Provides a study of pathophysiology and general health management of diseases and injuries across the lifespan. Includes topics of infection, symptoms, physical and psychological reactions to diseases and injuries. Pre-requisite: BIO 137 or BIO 135. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HST 123(2) Course ID:007367
Health Care Basic Skills II
Builds on basic health care skills by incorporating previous learning into more advanced concepts and
Components: Lecture Attributes: Technical

ICT 194(4) Course ID: 016368

Process Technology Systems
Covers the interaction of process equipment and process system, specifically the arrangement of process equipment into basic systems, process purposes, and specific function. Discusses the Process Technicians role in controlling factors that affect process systems under normal conditions and how to recognize abnormal process conditions. Pre-requisite: ICT 192 with a grade of "C" or greater or Permission of Instructor. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture Attributes: Technical

ICT 196(3) Course ID: 016369

Process Technology Operations
Introduces the student to the field of operations within the process industry. Utilizes existing knowledge of equipment, systems, and instrumentation to understand the operation of an entire unit as related to commissioning, normal startup, normal operations, normal shutdowns, turnarounds, and abnormal situations. Pre-requisite: ICT 192 with a grade of "C" or greater or Permission of Instructor. Lecture/Lab: 3 credits (60 contact hours).

Components: Lecture Attributes: Technical

ICT 200(4) Course ID: 016370

Process Troubleshooting
Instructs in troubleshooting techniques, procedures, and methods used to solve process problems. Pre-requisite: ICT 196 with a grade of "C" or greater or Permission of Instructor. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture Attributes: Technical

ICT 230(3) Course ID: 000377

Health, Safety & Environmental Practices
Basic principles of industrial health and safety are discussed including accident and loss prevention, safety legislation, safety documents, safety management practices, health and safety hazards and control, safe workpractices, and fire / explosion hazards. Corresponding field exercises will be performed as appropriate with participating industry representatives. Environmental regulations and their ultimate impact on a chemical facility as regulations will be discussed. An environmental audit will be performed in the field participating local industries. Lecture: 3.0 contact hours. Co-requisite: ICT 185, CHE 104 or 105, or consent of instructor.

Components: Lecture Attributes: Technical

IDL 110(3) Course ID: 007202

Instructional Design I
Provides an introduction to instructional systems design through an exploration of the ADDIE model. Students will design, develop, deliver, and evaluate training content for instructor-led learning. Pre-requisite: ENGT107 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 113(3) Course ID: 007245

Introduction to Visual Communication for Learning
Introduces students to the elements of visual communication and storytelling for the purpose of creating an end product. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 123(3) Course ID: 007204

Multimedia Design and Development
Introduces students to foundations of design and layout principles that enhance learning. Students will learn multimedia in an instructional context, including learning activities, and other forms of multimedia. This course also includes an overview of the course development process. Pre-requisite: IDL 101 and IDL 110 or consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 130(3) Course ID: 007246

Technical Writing for Instructional Design
Focuses on both the design and development of technical training and documentation. Students learn how performance outcomes, intended audience, types of content, and types of deliverables impact technical writing. Presentation strategies for content are covered. An overview of tools for technical writing is also provided. Pre-requisite: IDL 101 and IDL 110 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 147(3) Course ID: 007205

eLearning Development I: Rapid Authoring Tools
Provides an overview of eLearning development tools for the development of courses including learning activities. Particular emphasis will be given to rapid authoring tools. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 203(3) Course ID: 007247

Designing in Client Applications
Focuses on designing with common client software applications such as word processing, presentation, and spreadsheets. Students will learn to apply visual communication principles to these tools for the purpose of creating training materials and templates. Pre-requisite: CIT 130 and IDL 113 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 207(3) Course ID: 007206

eLearning Development II: HTML, CSS, and JavaScript
Covers HTML, CSS, and JavaScript for the development of web pages and web sites. Particular emphasis will be given to the use of these technologies for eLearning. Pre-requisite: IDL 147 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 210(3) Course ID: 007207

Instructional Design II
Learn how Bloom's Taxonomy of Learning Domains translates into the planning, analysis, and design for the resolution of human performance problems. The ADDIE Model of instructional design will be explored within the context of eLearning. Pre-requisite: IDL 101 and IDL 110 or consent of the instructor. Lecture/lab: 5.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 213(3) Course ID: 007248

Designing in Graphic Applications
Provides basic-level training for designing with common graphic software applications. Students will learn to apply visual communication principles in the context of a variety of deliverables, including print and eLearning. Pre-requisite: IDL 113 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 217(3) Course ID: 007208

Multimedia Development
Introduces students to audio / video production and implementation for eLearning. Pre-requisite: IDL 123 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 220(3) Course ID: 007249

Business Management for Instructional Design and Learning Technology
Provides an overview of business and the role of learning and training for an organization. This course includes an overview of financial and project management as well as the relationship of the training function to corporate goals and objectives. Pre-requisite: IDL 101 and IDL 110 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 223(3) Course ID: 007250

Design Application
Provides practical application in which students will utilize their accumulated skills, knowledge of design, and software and fundamental principles in several real-life scenarios. Pre-requisite: IDL 203 and IDL 213 or consent of the instructor. Lecture: 3.0 credits (90 contact hours).

Components: Lecture Attributes: Technical

IDL 227(3) Course ID: 007209

eLearning Development III: Advanced Authoring Tools
Provides instruction in the development of eLearning courses and learning activities, including scenarios and interactive elements. Pre-requisite: IDL 207 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

IDL 230(3) Course ID: 007251

Evaluation of Instruction
Provides an overview of the key considerations for evaluating instruction. Students will learn to write valid assessments of learning. Pre-requisite: IDL 210 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

IDL 240(3) Course ID: 007252

Human Performance Consulting
Provides an overview of consulting for human performance issues. Students gain experience with problem solving, decision making, the application of learning skills, and
the interpretation of information in aprojekt context. Pre-
requisite: IDL 210 or consent of the instructor. Lecture: 3.0 
credits (45 contact hours).

Components: Lecture
Attributes: Technical

IDT 290(3) Course ID:007253
Instructional Design III
Explored advanced topics in instructional design. Methods 
for increasing learner engagement for eLearningcourses 
will be shared. The students will take on the role of 
the instructional designer to design and developadvanced 
learning activities, including scenarios, learning games, 
and simulations. Pre-requisite: IDL 210 or consent of the 
instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

IDL 290(3) Course ID:007254
Competency Models and Curriculum Design
Provides an overview of competency models, the 
definition of competencies through job task analysis and 
the development of curriculum models that support a 
competency-based training plan. Pre-requisite: IDL 210 
or consent of the instructor. Lecture: 3.0 credit (45 contact 
hours).

Components: Lecture
Attributes: Technical

IDL 290(3) Course ID:007255
Experiential Learning in Instructional Design
Perform entry-level Instructional Design and Learning 
technology skills based on student’s chosen track. 
The learning plan will be discussed and agreed upon by 
the student, instructor and site supervisor. Pre-requisite: 
Permission of the instructor. Co-Op: 3.0 credits (180 
contact hours).

Components: Co-Op
Attributes: Technical

IDT 100(3) Course ID:005738
Fundamentals of Design
Introduces the basic drawing skills, elements and 
principles, color theory, terminology, and guidelines used to 
solve interactive design problems. Develops the ability and 
confidence to determine the appropriateness, feasibility and 
success of a potential design. Explores the integration of 
typography and visual elements using format structures. 
Pre-requisite or Co-requisite: Computer literacy course. 
Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IDT 110(4) Course ID:005739
3D Modeling & Animation I
Applies basic design principles to the solution of visual 
problems using elements of 3D design. Includes 
3Dcoordinate systems, 3D models, and mathematical 
computations as they apply to geometric construction. 
Emphasizes a creative and critical approach to working in 
the medium of 3D computer graphics. Pre-requisite or 
Co-requisite: Computer literacy course. Lecture/Lab: 4 credits 
(90 contact hours).

Components: Lecture
Attributes: Technical

IDT 120(4) Course ID:005740
Digital Design Tools
Includes the basic skills, terminology, file formats and 
specifications of visual design within the digital realm 
through the use of industry standard vector and raster 
software. Requires file management and project planning. 
Pre-requisite or Co-requisite: Computer literacy course. 
Lecture/Lab: 4 credits (90 contact hours).

Components: Lecture
Attributes: Technical
encourage creative expression in young children. Includes the implementation of appropriate creative activities in a child-centered environment. Includes five (5) hours of field experience which may be waived if the student has completed the required coursework. Introduces the development of children with an emphasis on state and federal laws that impact services. Introduces assessment, referral processes and sources, education plans, family service plans, center-based and home-based care, adaptations and assistive technology, and ethical considerations. Includes ten (10) hours of field experience, which may be waived by the IECE Program Coordinator if the student is concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IECE 180 or permission of IECE program Coordinator. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

IEC 230(3) Course ID:004569

Business Administration of ECE Programs

Introduces 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 240(3) Course ID:004138

Administration of Early Childhood Education

Introduces the fundamental information in drafting necessary to retrieve, read, manipulate and understand schematic and technical drawings. Instructs students to recognize, identify, describe, and relate the components used in schematics, along with their symbols and connectors, to describe electrical, electronics, pneumatics, hydraulics, and piping circuits, as well as welding and joining symbols interpretation. Lecture/Lab: 2.0 credits (40.5 contact hours).

Components: Lecture Attributes: Course Also Offered in Modules, Technical

IEC 250(3) Course ID:004098

School Age Child Care

Provides the student with specialized knowledge, skills, and abilities for working with school age children. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

IEC 260(3) Course ID:004140

Infant and Toddler Education and Programming

Introduces the types of exceptionalities that occur in early childhood settings where practical skills are applied. Includes observing, planning, implementing, and assessing learning experiences based on developmentally appropriate practices for each stage. Includes ten (10) hours of required field experience, which may be waived by the IECE Program Coordinator if the student is concurrently enrolled in IEC 190 or IEC 291. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

IEC 291(3) Instructor Consent Required

IEE Practicum/Cooperative Education

Introduces observation, 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 or ratio 60:1).

Components: Practicum Attributes: Technical

IEC 299(1 - 3) Course ID:004142

Department Consent Required

Special Topics in Early Childhood Education

IEE 323(3) Course ID:004198

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 (15-45 contact hours).

Components: Lecture Attributes: Technical

IES International Exchange Student

IEE 325(1 - 3) Course ID:004197

Welding and Fabrication

Introduces the powered 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 thermalurgy of steel and welding. Covers shielded metal arc welding safety and shielded metal arc welding processes including flat, horizontal, vertical, and overhead welding techniques. Provides knowledge of theory, safety practices, equipment and techniques required for gas metal arc welding including different transfer methods and position welding. Introduces oxy-fuel welding and cutting, including safety, setup and maintenance of oxy-fuel welding and cutting equipment. Includes cutting, brazing, and welding techniques. Lecture/Lab: 4.0 credits (100.5 contact hours).

Components: Lecture Attributes: Course Also Offered in Modules, Technical

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 safety, maintenance techniques and procedures to maintain industrial equipment, including industrial maintenance technicians. Introduces the safe and correct operation of lathes, milling machines, drill presses, metal sawing hand and power tools. Requires students to work with various measuring and layout tools found in industrial environments. Lecture/Lab: 2.0 credits (102 contact hours).

Components: Lecture Attributes: Course Also Offered in Modules, Technical

IET 130(5) Course ID:016096

Lean Manufacturing

Introduces the fundamental concepts of fluid power and electro-fluid power systems. Covers the principles of fluid power and the ability to do work. Introduces the various fluid power components, symbols, circuits, and troubleshooting of fluid power components and systems with an emphasis on safety. Addresses fluids, filters, reservoirs, piping, pumps, actuators, accumulators, control valves, and
combination circuits. Lecture/Lab: 6.0 credits (120 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 203(S) 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 diagrams. 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 step up procedure on robotics equipment, as well as integrating robotic applications in PLC-controlled, automated systems. Lecture/Lab: 4.0 credits (82.5 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 206(S) 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 servos motors, variable speed drives, relays, motor starters and the sizing of components for various applications. Lecture/Lab: 5.0 credits (105 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 102(1.0) 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 102(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 104(1.9) Course ID: 007138
Drafting Fundamentals
Introduces the fundamental information in drafting necessary to retrieve read, manipulate and understand 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

IET 104(2.1) 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 descriptive electronics, pneumatics, hydraulics, and piping circuits, as well as welding and joining symbol 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 schematic 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(1.0) Course ID: 007143
Control Circuits & Components
Concentrates on control logic components and circuit function. Examines combinational and sequential ladderlogic designs with great attention to reliability of function. Requires construction of various circuits that demonstrate key component functionality concepts. Requires reading and 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 system 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 sprocket components. 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 auto manufacturing industry. Lecture/Lab: 0.7 credits (12 contact hours).

Components: Lecture

IET 1092(0.4) Course ID: 007154
Hoists and Cranes
Introduces the basic concepts and safety rules and issues related to the use of overhead cranes and hoists. Lecture/Lab: 0.4 credit (8 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, regulating sling angles, 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 varying 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: 007162
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:007187
Intro to Machining Operations
Introduces machining operations. Focuses on the safe application of the most common machining procedures and machines used by multi-skilled industrial maintenance technicians. Lecture: 0.1 credits (1.5 contact hours).

Components: Lecture

IET 1202(0.6) Course ID:007188
Turning
Introduces safe operation of lathes, primarily engine and tool room lathes. Addresses various types of lathes used in industry, their component parts, and associated safety precautions. Emphasizes the most common lathe operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.6 credits (16.5 contact hours).

Components: Lecture

IET 1203(0.8) Course ID:007189
Milling
Introduces safe operation of milling machines, primarily vertical milling machines. Addresses the various types of milling machines used in industry, their component parts, and associated safety precautions. Emphasizes the most common milling operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.8 credits (22.5 contact hours).

Components: Lecture

IET 1204(0.5) Course ID:007190
Drill Press
Introduces safe operation of drill presses, primarily the sensitive drill press. Addresses the various types of drilling machines used in industry, their component parts, and associated safety precautions. Emphasizes the most common 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:007191
Saws
Introduces safe operation of saws, primarily the horizontal and contour band saw. Addresses the various types of metal saws used in industry, their component parts, and associated safety precautions. Emphasizes the most common saw operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.4 credits (10.5 contact hours).

Components: Lecture

IET 1206(0.7) Course ID:007192
Hand and Power Tools
Introduces safe and effective use of hand and power tools. Emphasizes the application of the most common tools used by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.7 credits (16.5 contact hours).

Components: Lecture

IET 1301(1) Course ID:016097
Safety Culture
Introduces the importance of cultivating daily safe work habits and the predictable negative results of not being safety conscious in the 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 (KY) or Hazard Prediction Training. Prepares the student to conduct risk assessment activities, construct safetyboards, and formulate individual safety commitments. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

IET 1302(1) Course ID:016098
SS
Introduces the fundamental SS process involving the five step progression described by the Japanese words Seri, Seito, Seiso, Seiktetsu, and Shitsuke. Instructs the students in the sequence involving classifying and sorting, ordering and aligning, cleaning and sweeping up, standardizing, and developing a process for sustainable practice in the workplace. Fosters the development of a workplace organization in which safety and efficiency are always paramount. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

IET 1303(1) Course ID:016099
Total Production Management
Instructs the student in the concepts of value-added product, maintenance value-added product, value-added workand necessary work. Explains the process of how Toyota earns profit. Demonstrates the Toyota Production System for Maintenance using the House framework. Describes and explains the three Ms and the seven Mudas and their relationship to maintenance and production. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

IET 1304(1) Course ID:016100
Problem Solving
Introduces the Toyota Business Practice model, the 8 step Toyota Problem Solving method, and the 10 part Toyota Drive and Dedication model. Instructs the students to clarify the problem, break it down to analyze it, set achievable targets, analyze the root cause, develop countermeasures, evaluate results and the process, standardize the results, and learn from failures. Fosters the development of a customer first philosophy involving all the stakeholders. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

IET 1305(1) Course ID:016101
Maintenance Reliability
Introduces the Toyota Maintenance Reliability training. Describes the difference between corrective maintenance and preventive maintenance. Breaks down proactive maintenance and the underlying tools and constituent processes. Instructs the students in the various individual units in a system and the steps in evaluating failure modes, risks and countermeasures. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

IET 2011(1) Course ID:007179
Electrohydraulics/Pneumatics Fundamentals
Explains the fundamental concepts of fluid power. Covers the principles of fluid power, calculations of physical properties of fluids and their ability to do work. Introduces the various fluid power components, symbols, circuits, and troubleshooting of fluid power components and systems with an emphasis on safely. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

IET 2012(0.7) Course ID:007178
Reservoirs, Fluids, Filters
Introduces functions of hydraulic/pneumatic reservoirs and reservoir components. Addresses properties and requirements for fluids, as well as how filters are used to maintain cleanliness in fluid power systems. Lecture/Lab: 0.7 credits (13.5 contact hours).

Components: Lecture

IET 2013(0.4) Course ID:007177
Hose, Piping, and Tubing
Introduces various types of conductors that carry pressure control and flow control valves. Lecture/Lab: 0.4 credits (9 contact hours).

Components: Lecture

IET 2014(0.8) Course ID:007176
Pumps, Actuators, Accumulators
Introduces the different types of pumps, actuators and accumulators used in fluid power systems which createflow, change fluid power into mechanical power and devises that store energy in the system. Lecture/Lab: 0.8 credits (16.5 contact hours).

Components: Lecture

IET 2015(1.3) Course ID:007175
Valves
Explains hydraulic and pneumatic directional control, pressure control and flow control valves. Lecture/Lab: 1.3 credits (28.5 contact hours).

Components: Lecture

IET 2016(0.9) Course ID:007174
Electrohydraulics/Pneumatics
Introduces the fundamentals of electro-fluid power, including basic electrical principles, basic fluid power principles, electro-fluid power limit devices, common electro-fluid power troubleshooting principles and practices. Lecture/Lab: 0.9 credits (18 contact hours).

Components: Lecture

IET 2017(0.9) Course ID:007173
Systems Troubleshooting
Introduces troubleshooting of hydraulic and pneumatic systems, including tracing out systems, isolating problems, safety testing and inspecting systems that use combination circuits and combined electro-hydraulic/pneumatic systems. Lecture/Lab: 0.9 credits (19.5 contact hours).

Components: Lecture

IET 2021(0.6) Course ID:007171
Introduction to PLCs
Introduces various elements of basic PLCs including the identification of programmable logic control systems as well as an overview of PLC system architectures. Provides instruction in basic numbering systems, computer terminology, PLC functions, program structures, language standards, point addressing basics. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

IET 2023(1.4) Course ID:007170
Hardware & Software
Introduces memory and project organization within a PLC processor, the installation, wiring and configuration of I/O modules, as well as how to start a new project. Lecture/ Lab: 1.4 credits (31.5 contact hours).

Components: Lecture

IET 2033(1.5) Course ID:007169
Programming PLCs
Introduces various elements of programming PLCs. Addresses the basic elements of PLC programming and routines. Requires student to program using ladder logic, structured text, sequential function chart, and function block languages. Lecture/Lab: 1.5 credits (34.5 contact hours).

Components: Lecture

IET 2034(1.5) Course ID:007168
PLC Communication
Introduces various elements of industrial communications using PLCs. Addresses common types of control communications in an industrial environment. Includes discussion of PLC addressing used in communications. Lecture/Lab: 1.5 credits (34.5 contact hours).

Components: Lecture

IET 2051(0.6) Course ID:007166
Introduction to Robotics
Introduces robotics in regard to industrial robotic safety standards, historic timeline of industrial robots, industrial classification of robots, common industrial applications of robots, basic system components found in industrial robot applications, robotic motion concepts, common terms and definitions used in computerintegrated manufacturing (CIM) as it relates to robotics. Lecture/Lab: 0.6 credits (10.5 contact hours).

Components: Lecture

IET 2052(1.5) Course ID:007165
Programming/Editing Robots
Introduces robotic systems and programming. Reviews robotic system application, automated system safety, robotic system composition, robotic motion control, fundamental programming commands, and program editing. Emphasizes the fundamentals of robot control. Aids students in electronics, welding, computer technology, and general sciences. Lecture/Lab: 1.5 credits (30 contact hours).

Components: Lecture

IET 2053(0.2) Course ID:007164
Robot and Preventive Maintenance
Instructs an operator, technician, engineer, programmer, or student to master the preventive maintenance techniques required for a robot and their backup systems. Lecture/ Lab: 0.2 credits (4.5 contact hours).

Components: Lecture
IET 2054(1.1) Course ID:007163
Error Codes & Troubleshooting
Instructs operators, technicians, engineers, programmers, or students in the basic recovery procedures needed to interpret robot error codes and perform a safe recovery start up procedure on robotics equipment. Lecture/Lab: 1.1 credits (22.5 contact hours).
Components: Lecture

IET 2055(0.6) Course ID:007162
Integration of PLCs & Robots
Introduces concepts associated with integrating robotic applications in a PLC-controlled, automated system. Includes discussion of the standard safety and interface signals associated with integrated systems, as well as various types of robotic applications along with the interface signals typically associated with each application. Stresses the programming concepts that support optimizing cycle time. Lecture/Lab: 0.6 credits (15 contact hours).
Components: Lecture

IEX Industrial Core

IEX 291(1) Course ID:001575
Special Problems I
This course is designed for the student who has demonstrated specific needs. Pre-requisite: Permission of Instructor
Components: Laboratory Attributes: Technical

IEX 293(2) Course ID:001576
Special Problems II
This is a course designed for the student who has demonstrated specific needs. Pre-requisite: Permission of Instructor
Components: Laboratory Attributes: Technical

IEX 295(3) Course ID:001577
Special Problems III
This is a course designed for the student who has demonstrated specific special needs, Laboratory: 4 credits (180 contact hours).
Components: Laboratory Attributes: Technical

IMD Information Management and Design

IMD 100(3) Course ID:004764
Digital Information & Communication Technologies
Introduces digital concepts and technologies. Examines hardware, operating systems, networks, applications, telecommunications, digital security, ethics, and social media. Utilizes Windows operating system plus word processing, spreadsheet, database, and presentation applications. Emphasizes social media practices/concepts and trends for practical daily users. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Digital Literacy

IMD 114(3) Course ID:005748
Information Literacy
This course is an introduction to the use of information resources, both traditional print materials and online materials, for academic and professional research. Topics include development of search strategy, evaluation of resources, use of database search techniques, ethical and legal aspects of information management and documentation of sources. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IMD 115(3) Course ID:004765
Introduction to Graphic Design
Introduces theory, concepts and techniques required in graphic design. Includes an introduction to layout, color theory and use; design, photo and illustration techniques; and exploration of media in respect to digital design. Integrates concepts regarding the production process including pre-press, printing, other production techniques and distribution. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

IMD 117(3) Course ID:004767
Keyboarding and Basic Word Processing
Students use a microcomputer and software to develop proper techniques of touch keyboarding. Basic word processing skills are integrated with a thorough study of form, style, and arrangement of business documents. Speed, accuracy and control are emphasized. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Computer Literacy, Technical

IMD 124(3) Course ID:0016264
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: CIT105 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 experiences 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 equivalents. 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 industries’ 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 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 130(3) Course ID:005046
**Beginning Web Design**
Introduces the creation and publication of a web site and covers extensible hypertext markup language (XHTML) and introductory cascading style sheets (CSS). Covers hand-coding for web design, along with the incorporation of graphics in 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, color schemes, site architecture, with emphasis on creating websites that effectively communicate the desirability of employers and clients. Pre-requisite: IMD 100 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

### IMD 201(3) Course ID:004787
**Microsoft Office Applications**
Practices 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 basic computer graphics with an emphasis on graphics for game design. Instructs students in practical aspects of graphics such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Pre-requisite: CIT 105 or IMD 100 or Consent of Instructor. Lecture: 3 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 application. Pre-requisite: CIT 221 or IMD 221 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

**Components:** Lecture, Course Equivalents: CIT 222
**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. Pre-requisite: Course Equivalents: CIT 222

**Components:** Lecture
**Attributes:** Technical

### IMD 228(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, color space usage and preparation, vector graphic usage, font usage, and standards. Pre-requisite: IMD 115 and IMD 128. Lecture: 3 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

### IMD 229(3) Course ID:006886
**Advanced Illustrator**
Introduces advanced techniques for the creation of vector-based (Bezier geometry-based) artwork, including techniques for high-end illustrative and artistic projects. Emphasizes working with painterly and traditional, vector-based brushes, photo-realistic vector-based image creation, advanced gradient mesh usage, advanced 3D techniques, integration with Adobe Flash, advanced workflow procedures, and other techniques intended for intermediate to advanced Adobe Illustrator users. Pre-requisite: IMD 127. Lecture: 3 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 115 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

### IMD 232(3) Course ID:004794
**Web Design with Adobe Dreamweaver**
Utilizes an advanced web authoring software application for design and development. Uses a professional WYSIWYG (what-you-see-is-what-you-get) editor to develop and create web pages, automate production, and manage and maintain entire websites. Builds XHTML, CSS, and web development knowledge to customize features and integrate applications. Pre-requisite: IMD 133 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

### IMD 235(3) Course ID:004795
**Advanced Word Processing**
Students will learn current word processing software from intermediate skills through advanced utilities. Topics include producing customized documents, enhancing the visual display of documents, creating custom desktop publishing publications, organizing text in documents using advanced features, and integrating dataautilizing various applications. Emphasis will be on mastering the software for optimal use. Pre-requisite: IMD 210 or CIT 130, or equivalent skills. Lecture: 3 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

### IMD 240(3) Course ID:004796
**Multimedia Development for the Web**
Introduces students to the design and delivery of interactive and media-rich websites using professional, industry-standard software and web development technologies. Covers creating and integrating animation into webdesign, 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 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 DVD and the Internet for use in entertainment, documentary films, commercials, and newscasts. Students will learn to storyboard, plan, and produce a digital video project from conception to final packaging. Pre-requisite: IMD 100 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

### IMD 255(3) Course ID:007327
**Digital Video Editing II**
Explores advanced techniques within cinematic arts and editing such as multi-camera 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 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

### IMD 258(3) Course ID:007328
**Professional Practices**
Designed to assist students develop strategies for entering the Information Management & Design
professor, by editing and refining portfolios and creating correspondence to meet professional standards, designing resumee and other self-promotional materials, developing a job search strategy, practicing 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 272(3) Course ID:016268
Game Design Theory
Introduces students to the experience-oriented standards and techniques of gaming on a digital platform. Includes hands-on conceptualization and writing of a game created by the student. Emphasizes creativity, player experiences and motivations, styles of play, types of games, character creation, world creation, and story-driven narrative within a video game. Requires students to write a complete and industry-quality Game Design Document as a final project in this course, which can serve as the basis for a fully-produced, playable video game in CIT/IMD 273. Pre-requisite: CIT 124 OR IMD 124 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Equivalents: CIT 272
Attributes: Technical

IMD 273(3) Course ID:016269
Game Production
Provides students with the opportunity to produce a fully playable 3D video game using assets and materials created in previous courses; employs an industry-standard game engine to model 3D content, audio, narrative, character, and environment into a professional and enjoyable video game experience. Pre-requisite: (CIT 2220 OR IMD 222) AND (CIT 272 OR IMD 272) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Equivalents: CIT 273
Attributes: Technical

IMD 274(3) Course ID:016270
Seminar in Game Development
Encompasses the three phases of game design and development: conception, creation, and marketing in this project-oriented seminar. Requires participation in class presentations, individual and group projects, development of a game, and a portfolio. Pre-requisite: (CIT 223 OR IMD 223) AND (CIT 273 OR IMD 273) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Equivalents: CIT 274
Attributes: Technical

IMD 275(3) Course ID:004798
Information Management and Communications
Introduces management principles and techniques as they apply to various types of businesses. Includes research emphasis on information management, team concepts, personnel management, communications, and business plans. Explores concepts within freelance, small business, and corporate entities. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMD 277(3) Course ID:006837
Typography
Explores the use of typography in the context of graphic design and discover the importance of type as a tool for visual problem solving and communication. Explores origins of typography, font usage, the anatomy and different kinds of type, software used for type manipulation, and how basic principles and elements of design (color, hierarchy, form, rhythm, etc.) are applied to typography. Requires the development of portfolio individual
typeography-based designs. Pre-requisite: (IMD 115 and IMD 126 and IMD 127 and IMD 128) or consent instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMD 280(3) Course ID:004799
Portfolio Practicum: Graphic Design
Provides an opportunity to assemble a comprehensive graphic design portfolio using skills learned within the IMD Graphic Design core courses, which will assess students overall graphic design skills. Provides IMD students with a professional design portfolio to aid in the search for employment. Provides the capstone for studying the graphic design option. Use presentation, vector, raster, and desktop publishing software to create design-intensive portfolio pieces. Pre-requisite: (IMD 127 and IMD 128 and IMD 185 and WorkConsent 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 on basic camera operations, with exploration of film speeds, apertures, and shutter speeds. Explores composition and elements of lighting. Uses slide lectures, a brief overview of contemporary photography to acquaint students with past and current photography. Lecture: 3 Credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMD 292(3) Course ID:005215
Portfolio Practicum: Web Design
Requires a comprehensive web site design portfolio using skills learned in the IMD Web Design core courses to assess students' overall skills learned in the web design option. Provides IMD students with a professional design portfolio to aid in the search for employment. Uses industry-standard design software programs and dynamic scripting languages to assemble the comprehensive design portfolio. Pre-requisite: IMD 133, 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMD 294(3) Course ID:005799
Seminar IMD Technologies
Incorporates research, study, and discussion of a current or emerging topic, issue, or trend in information management and design technologies. Topics can be repeated with different topics for a maximum of 6 credit hours Pre-requisite: IMD 100 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMD 299(1 - 3) Course ID:004800
Instructor Consent Required
Selected Topics in Information Management and Design
This course is designed to expand course offerings as new technology is developed, as well as consider contemporary and/or emerging trends in information management and design. Topics may vary from semester to semester depending on 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
Attributes: Technical

IMG Radiography
IMG 100(7) Course ID:04294
Radiography I
Emphasizes the historical perspective, professional ethics, introductory imaging, x-ray tube, patient management, and the role of the radiographer as a member of the health care team. Applies the principles of human anatomy to the study of fundamental radiographic procedures (exposure factors and patient positioning) used for different age groups. Covers procedures of the chest, abdomen, extremities, shoulder girdle, bony thorax, and pelvic girdle. Pre-requisite: Admission to the Radiography Program and BIO 139 with a minimum grade of C. Co-requisite: IMD 101. Lecture: 6.0 credits (90 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

IMG 101(4)
Clinical I
Provides experience in equipment operation, patient care technical factors for radiographic exposures, and positioning patients accurately for radiographic exams. Pre-requisite: Admission 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

IMG 102(2)
Introduction to Radiography
Introduces radiography with emphasis on the historical perspective, professional requirements, health care environment, cultural diversity, and legal and ethical considerations. Incorporates basic tube function and radiation protection. 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

IMG 104(2)
Patient Care in Radiography
Examines basic concepts of care relative to patient physical circumstances as well as to the needs of patient family. Includes communication skills, safety considerations, and infection control. 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

IMG 108(4)
Radiographic Procedures I
Introduces the principles of human anatomy as applied to fundamental radiographic procedures. Includes areal exposure factors and patient positioning relative to different age groups and to upper and lower extremities, bony and visceral thorax, and abdomen with consideration given to the evaluation of optimal diagnostic images. 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: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

IMG 109(1)
Clinical Practice I
Provides structured clinical experience through sequential competency-based assignments that focus on upper and lower extremities, bony and visceral thorax, and abdomen. 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. Clinical: 1.0 credit (60 contact hours).

Components: Clinical
Attributes: Technical

IMG 110(7)
Radiography II
Emphasizes radiographic imaging, related technical factors, and accessories. Applies human anatomy principles to basic radiographic procedures. Includes study of tomography and procedures used for the basic and complex skulls, vertebral column, alimentary canal, and the biliary and urinary systems. Consideres special radiographic examinations and equipment. Pre-requisite: IMG 100 with a minimum grade of C. Co-requisite: IMG 111. Lecture: 6.0 credits (90 contact hours). Laboratory: 1.0 credit (30 contact hours).
credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

IMG 111(4)  Course ID:004297
Clinical II
Continues IMG 101 to provide experience with equipment operation, patient care, and procedures for accurateradiographic exposures. Encourages increasing responsibility and autonomy as students build on previously-learned procedures. Pre-requisite: IMG 101 with a grade of C or greater. Co-requisite: IMG 110. Clinical: 4.0 credits (240 contact hours).
Components: Clinical
Attributes: Technical

IMG 114(2)  Course ID:005608
Image Production & Acquisition
Provides knowledge-base related to image production and acquisition, and practical experience with digital imaging systems. Pre-requisite: (IMG 104 and IMG 106 and IMG 108 and IMG 109) with a minimum grade of C. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

IMG 116(2)  Course ID:005609
Advanced Patient Care in Radiography
Examines the basic concepts of medical emergency response and pharmacology related to radiography. Addressed informal consent practices and the use of imaging contrast agents, venipuncture and IV therapy. Includes familiarization to professional practice standards. Pre-requisite: (IMG 104 and IMG 106 and IMG 108 and IMG 109) with a minimum grade of C. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

IMG 118(4)  Course ID:005610
Radiographic Procedures II
Continues procedures instruction with emphasis on the vertebral column, cranium, gastrointestinal, urinary, and special radiographic procedures. Focuses on the evaluation of optimal diagnostic images. Pre-requisite: (IMG 104 and IMG 106 and IMG 108 and IMG 109) with a minimum grade of C. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

IMG 119(3)  Course ID:005611
Clinical Practice II
Provides structured clinical experience through competency-based assignments focusing on the upper and lower extremities, bony and visceral thorax, and abdomen. Pre-requisite: (IMG 104 and IMG 106 and IMG 108 and IMG 109) with a minimum grade of C. Clinical: 3.0 credits (180 contact hours).
Components: Clinical
Attributes: Technical

IMG 201(3)  Course ID:004298
Clinical III
Continues IMG 111 to provide experience with equipment operation application of patient care, set-up of accurate technical factors for radiographic exposures, and positioning patients accurately for radiographic examinations. Provides opportunities for more responsibility and independence with previously learned procedures. Requires performance of a critical evaluation of finished radiograph with emphasis on acceptable technical exposure factors and accurate patient and anatomical position. Pre-requisite: IMG 111 with a grade of C or greater. Clinical: 3.0 credits (180 contact hours).
Components: Clinical
Attributes: Technical

IMG 209(3)  Course ID:005612
Clinical Practice III
Provides clinical experience through structured sequential competency based clinical assignments to include the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranial, and contrast studies of the digestive, urinary, and central nervous systems, and arthrography. Pre-requisite: (IMG 114 and IMG 116and IMG 118 and IMG 119) with a minimum grade of C. Clinical: 3.0 credits (180 contact hours).
Components: Clinical
Attributes: Technical

IMG 210(4)  Course ID:004299
Radiography IV
Covers theories and principles involved in the production, control, and application of ionizing radiation in radiography. Emphasizes the development of a quality assurance program, quality control testing of radiographic equipment, and image intensification. Pre-requisite: IMG 201 with a grade of C or greater. Co-requisite: IMG 211. Lecture: 3.0 credit (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

IMG 211(6)  Course ID:004300
Clinical IV
Continues IMG 210 to provide experience with equipment operation, application of patient care, set-up of accurate technical factors for radiographic exposures, and positioning patients accurately for radiographic examinations. Provides opportunities for more responsibility and independence with previously learned procedures. Pre-requisite: IMG 201 with a grade of C or greater. Co-requisite: IMG 210. Clinical: 6.0 credits (360 contact hours).
Components: Clinical
Attributes: Technical

IMG 214(2)  Course ID:005613
Imaging Equipment
Focuses on the types of imaging equipment used in radiography including x-ray imaging systems, fluoroscopy, tomography, screens, film, and automatic processing. Introduces quality management in radiography. Pre-requisite: IMG 209 with a minimum grade of C. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

IMG 216(1)  Course ID:005614
Basic Computed Tomography
Examines basic computed tomography (CT), including imaging formation, equipment, and terminology, with focus on scanning techniques of the head, neck, chest, abdomen and pelvis, and sectional anatomy. Pre-requisite: IMG 209 with a minimum grade of C. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

IMG 219(6)  Course ID:005618
Clinical Practice IV
Provides structured clinical experience through competency-based assignments that focus on the extremities, bony and visceral thorax, abdomen, vertebral column, and cranial. Includes arthrography and contrast studies of the digestive urinary, and central nervous systems, as well as basic CT scanning procedures. Pre-requisite: (IMG 214 and IMG 216 and IMG 219) with a minimum grade of C. Clinical: 6.0 credits (360 contact hours).
Components: Clinical
Attributes: Technical

IMG 220(4)  Course ID:004301
Radiography V
Introduces equipment and advanced modalities used to complement diagnostic radiology. Includes principles of radiation biology, radiation protection, pathology and the systematic classification of disease. Provides fora discussion of professional and legal standards. Pre-requisite: IMG 210 with a grade of C or greater. Co-requisite: IMG 221. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

IMG 226(4)  Course ID:004302
Clinical V
Continues IMG 211 to provide experience with equipment operation, application of patient care, set-up of accurate technical factors for radiographic exposures, and positioning patients accurately for radiographic examinations. Provides opportunities for more responsibility and independence with previously learned procedures. Pre-requisite: IMG 211 with a grade of C or greater. Co-requisite: IMG 220. Clinical: 6.0 credits (360 contact hours).
Components: Lecture
Attributes: Technical

IMG 227(4)  Course ID:005615
Radiation Protection & Biology
Examines principles of radiation protection and measurement, as well as basic radiation biology principles, particularly the effects of various radiation levels on living organisms. Pre-requisite: (IMG 214 and IMG 216 and IMG 219) with a minimum grade of C. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

IMG 228(2)  Course ID:005619
Radiography Seminar
Introduces the format, rules, and regulations regarding certification by the American Registry of Radiologic Technologists (ARRT) and state certification requirements. Pre-requisite: (IMG 214 and IMG 216 and IMG 219) with a minimum grade of C. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

IMG 229(6)  Course ID:005617
Clinical Practice V
Provides structured clinical experience through competency-based assignments that focus on the extremities, bony and visceral thorax, abdomen, vertebral column, and cranial. Includes arthrography and contrast studies of the digestive, urinary, and central nervous systems, as well as basic CT scanning procedures. Pre-requisite: (IMG 214 and IMG 216 and IMG 219) with a minimum grade of C. Clinical: 6.0 credits (360 contact hours).
Components: Clinical
Attributes: Technical

IMG 230(3)  Course ID:004826
Sectional Anatomy for Advanced Medical Imaging
Provides content on computed tomography and magnetic resonance imaging (CT/MRI) procedures including patient care, image acquisition, and cross sectional anatomy. Pre-requisite: (IMG 201 or IMG 216) with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMG 240(3)  Course ID:006617
Pathology for Advanced Medical Imaging Modalities
Examines diseases commonly diagnosable via computed tomography (CT) and/or magnetic resonance imaging (MRI). Traces the disease or trauma process from its description, etiology, symptoms, and diagnosis with appearance onCT and/or MRI scans. Pre-requisite: (IMG 201 or IMG 216) with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Course Descriptions
IMT 220(3) Course ID:001562
Industrial Maintenance Environmental Control
Provides industrial maintenance student an introduction to electricity, electricity distribution, and laws of Ohm and Kirchhoff. Stresses the use of Ampere's, Ohm's, and Joule's laws. Prerequisite: IMT 114 or Consent of Instructor. Lab: 2 credits (60 contact hours).

Components: Lecture Attributes: Technical

IMT 100(3) Course ID:001578
Welding for Maintenance
Provides basic instruction needed for student to weld using SMAW (Stick), GMAW (MIG), GTAW (TIG), and Oxy-Fuel processes. Co-requisite: IMT 101 or IMT 1011 - IMT 1014) or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical
Course Descriptions

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 relay, 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, servomotors, 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 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 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 electricallockouts 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 contacthours). 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 electricallockouts 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 consent of instructor or Consent of Instrutor. 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 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 proficient in the field of stamping press and die maintenance. Pre-requisite: IMT 100 and IMT 101 or (IMT 115 and IMT 116) or (IMT 114) or (IMT 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 (equivlant) or Consent of Instructor. Co-requisite: IMT 281 or Instructor Consent. Components: Lecture Attributes: Course Also Offered in Modules, Technical

IMT 281(2) Course ID:001601 Programmable Logic Controllers Lab Provides practical applications of the theory in IMT 280 to include installation, programming, interfacing and troubleshooting of industrial PLCs. Pre-requisite: (IMT 220 and 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 priorlearning outcomes into a single integrated learning experience. Includes preparation for an exit exam that all program graduates must take. Pre-requisite: (BRX 120 or ELT 102) and FPX 100 and FPX 101 and IMT 100 and IMT 110 and IMT 111 and IMT 150 and 151 and IMT 220 and IMT 221) or consent of instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture Attributes: Technical

IMT 290(1) – 3 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 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 SAW (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 1010(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 oxy-fuel cutting equipment. Co-requisite: IMT 1001 (consent of Instructor). Laboratory: 0.5 credit (15 contact hours). Components: Laboratory

IMT 1012(0.5) Course ID:005920 Welding for Maintenance SAW (Stick Welding) Lab Provides application of setup and use of SAW (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 1115(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 1163 or Consent of Instructor. Lecture: 0.3 credit (4.5 contact hours). Components: Lecture

IMT 1154(0.8) Course ID:006409 Lathe Operations and Procedures Introduces lathe operations including lathe components, grinding tool bits, the selection of feeds and speeds, turning operations, and threading. Pre-requisite: IMT 1151 or Consent of Instructor. Co-requisite: IMT 1164 or Consent of Instructor. Lecture: 0.8 credit (12 contact hours). Components: Lecture

IMT 1155(0.6) Course ID:006410 Milling Machine and Surface Grinder Operations and Procedures Introduces milling and surface grinding operations including vise alignment, trammeg, selection of feeds and speeds, form tools, dressing grinding wheels. Pre-requisite: IMT 1151 or Consent of Instructor. Co-requisite: IMT 1165 or Consent of Instructor. Lecture: 0.6 credit (9 contact hours). Components: Lecture
INT 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. Pre-requisite: IMT 1151 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

INT 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, 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

INT 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

INT 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

INT 1165(1.5) Course ID: 006415
Milling Machine and Surface Grinding Operations and Procedures Lab
Introduces milling and surface grinding operations including vise alignment, trimming, 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

INT 2201(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

INT 2202(1) Course ID: 006417
Motor Starters and Pilot Devices
Addresses the diversity of motor starters, control devices, and circuitry. Pre-requisite: IMT 2211 or Consent of Instructor. Co-requisite: IMT 2220. Laboratory: 0.5 credit (15 contact hours).
Components: Lecture

INT 2211(0.5) Course ID: 006419
Introduction to Motor Controls Lab
Addresses the importance of electrical safety and the general fundamentals of motor controls. Co-requisite: IMT 2201. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory Attributes: Course Also Offered in Modules

INT 2212(0.5) 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 2220. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

INT 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: 1.0 credit (30 contact hours).
Components: Laboratory

INT 2221(0.6) Course ID: 006423
Principles in Process Control and Automation
Gives an overview of 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: 0.6 credit (90 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules

INT 2222(0.7) Course ID: 006432
Industry Standards for Control Circuit Wiring and Troubleshooting Methods
Covers industrial standards related to color coding of industrial wiring control cabinets. Provides for troubleshooting techniques using electrical hand tools and developing and interpreting troubleshooting flowcharts to determine phase failure and voltage drops. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2232. Lecture: 0.7 credit (10.5 contact hours).
Components: Lecture

INT 2223(0.7) Course ID: 006433
Industry Standards for Installing Motors and Electronic Variable Speed Drives
Covers how to properly evaluate maintenance procedures used for installation of AC and DC motors, proper startup and shut down of electrical systems and fault recovery. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2233.

INT 2224(0.5) Course ID: 006435
Industry Standards for Control Circuit Wiring and Troubleshooting Methods Lab
Covers the lab component for IMT 2224. 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 2221. Lecture: 0.5 credit (15 contact hours).
Components: Laboratory

INT 2232(0.6) Course ID: 006436
Industry Standards for Installing Motors/Electronic Variable Speed Drives II
Provides the lab component for IMT 2232. 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 flowcharts to determine phase failure and voltage drops. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2233. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

INT 2233(1) Course ID: 006437
Industry Standards for Installing Motors/Electronic Variable Speed Drives II
Provides the lab component for IMT 2233. Covers how to properly evaluate maintenance procedures used for installation of AC and DC motors, proper startup and shut down of electrical systems and fault recovery. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2223. Laboratory: 1 credit (30 contact hours).
Components: Laboratory

INT 2601(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 2601 or Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours), Lab: 0.2 credits (6 contact hours).
Components: Lecture

INT 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 2602 or Consent of Instructor. Lecture: 1.3 (Contact Hours 36).
Components: Lecture

INT 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 2603 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

INT 2608(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 Same As Offering: IMT 2606

INT 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: 1.5 credits (45 contact hours).
Components: Lecture

INT 2801(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/or MT22 with a grade of “C” or greater) or (equivalent) or Consent of Instructor. Co-requisite: IMT 2811 or Consent of Instructor. Laboratory: 0.75 credit. (11.25 contact hours).
Components: Lecture

INT 2802(0.75) Course ID: 006425
Programming Instructions in PLCs
Provides an overview in programming Programmable Logic Controller Timers and Counters. Co-requisite: IMT 2812 or Consent of Instructor. Laboratory: 0.75 credit (11.25 contact hours).
Components: Lecture

INT 2803(0.75) Course ID: 006426
Number Systems and Data Manipulation in PLCs
Provides an overview of number systems and data manipulation. Pre-requisite: (IMT 220 and/or MT22 with a grade of “C” or greater) or (equivalent) or Consent of Instructor. Laboratory: 0.75 credit (11.25 contact hours).
Components: Lecture
INF 120(3) Course ID:007282
Elementary Programming
An elementary introduction to programming for those with no previous programming experience. Emphasizes understanding how to read and write basic procedural programs, and on understanding the concepts of algorithmic execution. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science, University Course (Northern Kentucky University)

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; examines impacts on individuals and society; provides practice with a variety of digital technologies. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: University Course (Northern Kentucky University)

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). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

INS 100(3) Course ID:006586
Introduction to Insurance and Risk Management
Introduces the basic principles of insurance and insurance as 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

IRW 85(4) Course ID:007214
Integrated Reading and Writing
Emphasizes critical reading skills to develop vocabulary, active reading strategies, comprehension, accuracy, and interpretation of visual elements in texts. Applies writing as a process with emphasis on paragraph-length assignments, basic conventions of standard English as these apply to students' own work, writing in response to reading, and the use of technology to produce and share writing. Pre-requisite: COMPASS score in writing: 30-38 and COMPASS score in reading: 55-69 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Reading/English

IRW 85(4) Course ID:007214
Integrated Reading and Writing
Emphasizes critical reading skills to develop vocabulary, active reading strategies, comprehension, accuracy, and interpretation of visual elements in texts. Applies writing as a process with emphasis on paragraph-length assignments, basic conventions of standard English as these apply to students' own work, writing in response to reading, and the use of technology to produce and share writing. Pre-requisite: COMPASS score in writing: 30-38 and COMPASS score in reading: 55-69 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Reading/English

ISX 100(3) Course ID:001622
Industrial Safety
This course provides practical training in industrial safety. The students are taught to observe generally accepted rules and regulations, to apply work site and shop safety rules, and to apply OSHA regulations. Students are expected to obtain
certification in first aid and cardiopulmonary resuscitation.

Components: Lecture
Attributes: Technical

ISX 101(3) Course ID:008077
Introduction to Industrial Safety
Introduces the history of the industrial safety movement along with current standards under the Occupational Safety and Health Act (OSHA). Introduces safety engineering methodologies. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ISX 105(2) Course ID:015675
General Industrial Safety
Introduces the history of the safety movement under the standards of the Occupational Safety and Health Administration (OSHA). Provides entry level workers with information about their rights and responsibilities. Emphasizes hazard identification, avoidance, control and prevention. OSHA certificate may be available upon successful completion of all required course topics. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

ISX 1001(1) Course ID:016784
Safety & Universal Precaution
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. Lecture: 1.0 credits (15 contact hours)

Components: Lecture

ISX 1002(1) Course ID:016785
Fire Prevention & Hazardous Com
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. Specifically related to fire prevention and hazardous communication procedures. Lecture: 1.0 credits (15 contact hours)

Components: Lecture

ISX 1003(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 10510.67 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 10521.33 Course ID:015674
General Industry Topics
Introduces the history of the safety movement under the standards of the Occupational Safety and Health Administration (OSHA). Emphasizes hazard identification, avoidance, control and prevention. Covers selected topics and standards for general industry under OSHA. OSHA certificate may be available upon successful completion of all required course topics (and must be within six months of completing ISX 1051). Pre-requisite OR Co-requisite: ISX 1051. Lecture: 1.33 credits (20 contact hours)

Components: Lecture

ITE 250(3) Course ID:004619
Team Dynamics and Problem Solving
Emphasizes the use of a systematic problem-solving model while building skills for team members and leaders. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ITE 233(3) Course ID:004618
Statistical Process Control
Introduces students to the principles and methods used for controlling the quality of goods produced. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ITE 115(3) Course ID:005590
Heritage and Culture of Deaf People
Overview of the psychological, sociological and cultural impacts of deafness upon children and adults. Explores how deafness can affect the individual's development in language, communication, cognition and psychological-emotional growth. Examines historic relations between deaf and hearing, and compares deaf culture with that of the hearing world. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ITE 110(3) Course ID:005575
Application of Fingertyping and Numbering Systems
This course will focus on aspects of receptive and expressive finger typing usage, including lexicalized finger typing and various numbering systems within ASL. Pre-requisite: ASL 201 with a minimum of C in permission of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture

ITE 100(3) Course ID:004619
Team Dynamics and Problem Solving
Emphasizes the use of a systematic problem-solving model while building skills for team members and leaders. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ITE 110(3) Course ID:005575
Application of Fingertyping and Numbering Systems
This course will focus on aspects of receptive and expressive finger typing usage, including lexicalized finger typing and various numbering systems within ASL. Pre-requisite: ASL 201 with a minimum of C in permission of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture

ITP 210(3) Course ID:005575
Application of Fingertyping and Numbering Systems
This course will focus on aspects of receptive and expressive finger typing usage, including lexicalized finger typing and various numbering systems within ASL. Pre-requisite: ASL 201 with a minimum of C in permission of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture

ITP 115(3) Course ID:005590
Heritage and Culture of Deaf People
Overview of the psychological, sociological and cultural impacts of deafness upon children and adults. Explores how deafness can affect the individual's development in language, communication, cognition and psychological-emotional growth. Examines historic relations between deaf and hearing, and compares deaf culture with that of the hearing world. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ITP Interpreter Training Program

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 online news media. Issues and concepts to be covered include the relationship of government to media; press freedom and controls; media ethics, and the impact of global communications. The course also covers the relationship of journalism to advertising, public relations and telecommunications, particularly with regard to new technologies. Lecture: 3.0 credits (45 contact hours)

Components: Lecture
Attributes: Other

JOU 241(1 - 4) Course ID:002223
Communications Practicum
Supervised laboratory work in the media of mass communications, with meetings for evaluation of work, study of techniques, analyses of problems, and reports. May be repeated to a maximum of four credits. (Offered in Community College System only.) Independent Study 1.0 - 4.0 credits (15 contact hours)

Components: Independent Study
Attributes: Other

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: Other

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: Other

JPN 201(3) Course ID:003994
Intermediate Japanese I
Focuses on developing listening, speaking, reading and writing skills in early intermediate level of Japanese. Pre-requisite: JPN 102/RAE 121 or equivalent. Lecture: 3 credits (45 contact hours)

Components: Lecture
Attributes: Other
KHP 100(1) Course ID:002299
Walking
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory
Attributes: Other

KHP 101(1) Course ID:002300
Weightlifting
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory
Attributes: Other

KHP 104(1) Course ID:002304
Beginning Swimming
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory
Attributes: Other

KHP 106(1) Course ID:002306
Beginning Bowling
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory
Attributes: Other

KHP 107(1) Course ID:002307
Fitness
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory
Attributes: Other

KHP 108(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.
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 131(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 135(1) Course ID:002335
Swimming for Fitness
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory
Attributes: Other

KHP 136(1) Course ID:002336
Advanced Walking for Fitness
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Lab: 3 hours. Pre-requisite: Completion of comparable service course or demonstrated competency. Laboratory: 3.0 credit hours.
Components: Laboratory
Attributes: Other

KHP 138(1) Course ID:003855
Beginning Yoga
Provides students with instruction and activities associated with beginning yoga. Lab: 1 credit (30 contact hours).
Components: Laboratory
Attributes: Other

KHP 139(1) Course ID:003856
Lifetime Sports
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit.
Components: Laboratory
Attributes: Other

KHP 140(1) Course ID:002341
Advanced Weight Training
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Lab: 3 hours. Pre-requisite: Completion of comparable service course or demonstrated competency. Laboratory: 3.0 credit hours.
Components: Laboratory
Attributes: Other

KHP 142(1) Course ID:002342
Advanced Aerobics
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Pre-requisite: Completion of comparable service course or demonstrated competency. Laboratory: 3.0 credit hours.
Components: Laboratory
Attributes: Other

KHP 143(1) Course ID:002343
Intramurals
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Pre-requisite: Completion of comparable service course or demonstrated competency. Laboratory: 3.0 credit hours.
Components: Laboratory
Attributes: Other

KHP 145(3) Course ID:003870
Concepts of Health and Fitness
Current concepts of health and fitness covering such topics as the benefits of physical fitness, principles of fitness training, prevention of cardiovascular diseases, and basic concepts of nutrition and weight management. Emphasis will be on the promotion of health lifestyles. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

JPN 202(3) Course ID:004208
Intermediate Japanese II
Focuses on developing listening, speaking, reading and writing skills in upper intermediate level of Japanese. Pre-requisite: JPN 201. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
KHP 146(1) Intermediate Yoga  
Provides students with intermediate instruction and activities associated with yoga. Laboratory: 1 credit (30 contact hours).  
Components: Laboratory  
Attributes: Other  
KHP 149(1) Advanced Yoga  
Provides students with advanced instruction and activities associated with yoga. Laboratory: 1 credit (30 contact hours). Pre-requisite or Co-requisite: KHP 146.  
Components: Laboratory  
Attributes: Other  
KHP 150(3) Personal Health Behavior  
Focuses on the inter-relationship between nutrition and physical fitness while addressing weight control. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical  
KHP 160(3) Personal Nutrition and Fitness  
Focuses on the importance of daily diet and nutrition. Addresses the role of the personal trainer in helping clients to recognize and decrease risks for chronic diseases. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical  
KHP 190(2) First Aid and Emergency Care  
Provides students to make informed choices about health issues and behaviors and to take responsibility for their health and well-being. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical  
KHP 225(3) Exercise Techniques and Physical Training  
Focuses on the core components of personal training. Provides information and resources necessary to pass personal fitness trainer certification. Pre-requisite: BIO 135 or MSG 100 (or consent of instructor). Co-requisite: KHP 235. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Other  
KHP 230(3) Human Health and Wellness  
The study of health promotion, wellness, and disease prevention concepts as applied to individual, familial, and community health. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Other  
KHP 232(0) Personal Trainer Practicum  
Students will apply personal training principles and techniques and demonstrate skills with clients in various settings under instructor and preceptor supervision. Pre-requisite: BIO 135 or MSG 100. Co-requisite: KHP 225. Practicum: 2.0 credits (60 contact hours).  
Components: Practicum  
Attributes: Other  
KHP 240(3) Nutrition and Physical Fitness  
Focuses on the inter-relationship between nutrition and physical fitness. Provides the student with the information necessary to formulate an individualized plan for achievement and maintenance of adequate nutrition and physical fitness while addressing weight control. Lecture: 3 credits (45 contact hours).  
Components: Laboratory, Lecture  
Attributes: Other  
KMA 100(5) Kentucky Medication Aide  
Prepares a Kentucky Medicaid Nurse Aide to administer specific medications in a long term care facility delegated and supervised by a licensed nurse. Pre-requisite: KMA 100 or NAA 125 and six months work experience as a Kentucky Medicaid Nurse Aide) or Consent. Lecture/Lab: 5.0 credits (105 contact hours).  
Components: Lecture  
Attributes: Technical  
LAC 201(3) Introduction to Latin America  
An interdisciplinary approach to the people, culture, and development of the Latin American republics. Attention will be concentrated on significant aspects of the indigenous peoples, geography, economic processes, gender roles, social structures and politics of Latin America, with special attention paid to value structures and value conflicts. Musical, literary and artistic expression in Latin America will also be introduced. Lecture: 3.0 credits (45 contact hours)  
Components: Lecture  
Attributes: AH - Arts and Humanities, University Course (University of Kentucky)  
LEAD 200(3) Introduction to Leadership Studies  
The purpose of the course is to provide students a better understanding of leadership from multiple angles and perspectives. Students will explore the different ways leadership has been defined and studied. Students enrolled in this course will read leadership theory, discuss leadership concepts, and discuss cases portraying leaders who exemplify or challenge these theories. Additionally, students will explore the relevance of leadership theory and concepts to the work that will perform as future leaders in their careers and communities. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: University Course (Western Kentucky University)  
LIN 175(3) Information Literacy  
A foundational course that introduces students to the cross-disciplinary skills needed to assess information needs, and access and evaluate information sources. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: SB - Social Behavior Science, University Course (Northern Kentucky University)  
LIT 115(3) Introduction to Reference Services  
Introduces library reference sources 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).  
Components: Lecture  
Attributes: Technical  
LIT 120(3) Readers' Advisory Services  
Examines library readers’ advisory services. Includes readers' advisory resources, library programming, booktalk/discussion groups, collection development, formats for books, ebooks and audio books, online applications, and marketing. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical  
LIT 124(3) Library Administration  
Introduces basic principles of library organization and management. Includes the planning process, policies, ethical and legal issues, budgeting, and human resources. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical  
LIT 132(3) Library Technical Services  
Provides an overview of library technical services, including acquisitions, processing, cataloging and classification. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical  
LIT 200(3) Seminar in Kentucky Literature  
Introduces Kentucky literature, recognizing, studying, and examining distinct regional differences and similarities with concentration on major contemporary and traditional Kentucky writers and their texts. Approaches may include a group of authors, an historical period or aesthetic movement, a genre, a theme, or an aspect of literary theory. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical
of essential project management processes, defining challenges required to bring any project in on time, covers skills and concepts of essential project management processes, defining challenges required to bring any project in on time, on target, and on budget. Pre-requisite: Digital literacy or consent of instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

LIT 1802(1) Course ID:0016374
Project Management Activities
Covers skills and concepts of essential project management processes, defining schedules, risk management assessment, change control, and project management software applications. Pre-requisite: LOM 1801. Lecture: 1 credit (15 contact hours).

Components: Lecture

LIT 1803(1) Using Microsoft Project
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: LOM 1802. Lecture: 1 credit (15 contact hours).

Components: Lecture

LIT 2021(1) Intro to Supply Chain Mgmt
Explains the key drivers in a supply chain and their relationship to manufacturers and distributors and the benefits of integration with those departments. Pre-requisite: LOM 102. Lecture: 1 credit (15 contact hours).

Components: Lecture

LIT 2022(1) Benefits of Supply Chain Management
Demonstrates the benefits of supply chain management in achieving supply cost reductions utilizing charts and flow plans to integrate into the workplace. Pre-requisite: LOM 2021. Lecture: 1 credit (15 contact hours).

Components: Lecture

LIT 2023(1) Utilizing Supply Chain Mgmt
Analyze and develop customer focused supply chain utilizing effective strategies. Pre-requisite: LOM 2022. Lecture: 1 credit (15 contact hours).

Components: Lecture

LSI Lockmasters Security Institute

LSI 120(4) Comprehensive Security Specialist
Training for the security professional in all aspects of security, addressing current trends in policies and procedures, including physical security, crime prevention, security surveys and contingency planning for internal and external threats. Pre-requisite: 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 a security clearance, this requirement may be waived by LSI. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

LSI 130(4) SGA: Locks, Vaults & Containers Certified Technician Training
Instruction to successfully service, maintain, perform covert and forced entry, and repair GSA approved security containers. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours). Pre-requisite: Instruction to successfully service, maintain, perform covert and forced entry, and repair GSA approved security containers.

Components: Laboratory, Lecture

Attributes: Technical

LSI 140(1) Managing Terrorism and Other Crises
An overview of domestic and international terrorist groups, introducing the concept of contingency planning in comparison to other types of operations planning, and providing basic knowledge regarding the management

LIT 247(3) Library Services for Adults
Introduces library services for adults. Includes adult literature, collection development, programming, circulation services, reference services, and customer relations. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

LIT 248(3) Library Services for Preschool Children
Introduces library services for preschool children, age infant to 5 years. Includes library programming, development and production, preschool children’s literature, services for parents and for child care services, collection development, and legal issues. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

LIT 280(3) 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) 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

Attributes: Technical

LIT 298(1 - 3) Selected Topics in Library Information Technology
Expands library course offerings as new technologies develop and/or as new issues evolve. Lecture: 1.0 - 3.0 credits (15-45 contact hours).

Components: Lecture

Attributes: Technical

LOM Logistics and Operations Management

LOM 100(3) Introduction to Logistics Management
Presents 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) Transportation Management
Presents an overview of the role of transportation and pricing issues; transportation modes and terminals; and transportation risk management and global management issues. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

LOM 102(3) Supply Chain Management
Presents an overview of supply chain management and financial analysis. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

LOM 103(3) 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

Attributes: Technical

LOM 202(3) Applied Supply Chain Management
Provides an understanding of the importance of individual components (supplies, manufacturers, distributors, and customers) in the operation of a supply chain. Pre-requisite: LOM 102. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

LOM 210(3) 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: LOM 100 Introduction to Logistics Management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

LOM 2004(2) Logistics Concepts
Presents an overview of general logistics concepts and organizational issues, inventory management, and customer service in logistics. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

Attributes: Technical

LOM 2005(1) Logistics of Transportation
Presents an overview of transportation and third party logistics. Pre-requisite: LOM 1004. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

Attributes: Technical

LOM 2011(1) Transportation Overview
Presents an overview of the role of transportation and pricing issues. Pre-requisite: LOM 100. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

Attributes: Technical

LOM 2012(1) Transportation Modes
Presents transportation modes and terminals. Pre-requisite: LOM 1011. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

Attributes: Technical

LOM 2013(1) Global Transport
Presents an overview of transportation risk management and global management issues. Pre-requisite: LOM 1012. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

Attributes: Technical

LOM 2021(1) Supply Chain Overview
Presents an overview of supply chain management and financial analysis. Pre-requisite: LOM 100. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

Attributes: Technical

LOM 2022(1) Supply Chain Skills
Presents inventory management skills and techniques. Pre-requisite: LOM 1021. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

Attributes: Technical

LOM 2023(1) Supply Chain Sustainability
Presents supply chain design and sustainability solutions. Pre-requisite: LOM 1022. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

Attributes: Technical

LOM 1801(1) Project Management Overview
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. Pre-requisite: Digital literacy or consent of instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

LOM 1802(1) Project Management Activities
Covers skills and concepts of essential project management processes, defining schedules, risk management assessment, change control, and project management software applications. Pre-requisite: LOM 1801. Lecture: 1 credit (15 contact hours).

Components: Lecture

LOM 1803(1) Using Microsoft Project
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: LOM 1802. Lecture: 1 credit (15 contact hours).

Components: Lecture
of an bomb threat and identification of explosives and incendiary devices. Pre-requisite: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

MA 150(4) Course ID:004407
Professional Locksmithing
Comprehensive hands-on knowledge of locks, providing the student with the information necessary to become an competent technician who can service, maintain, troubleshoot and master key any industrial key lock system. Pre-requisite: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

LSI 151(1) Course ID:004659
Basic Penetration of Safes
Techniques and skills that are required to strategically drill into a container and defeat the locking mechanism in order to penetrate a safe or security container. Pre-requisite: LSI 153. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

LSI 152(1) Course ID:004660
Combination Lock Manipulation
Complex and in-depth investigation of the working of the combination lock that will provide the technician with the capability of determining the combination without drilling the lock. Pre-requisite: LSI 153. Lecture: 1 credit (8 contact hours). Laboratory: 0.5 credits (15 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

LSI 153(2) Course ID:004661
Safe Lock Servicing - Mechanical and Electronic
Instruction in the operation and servicing of mechanical and electronic safe locks. Pre-requisite: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

LSI 160(2) Course ID:004408
Fundamentals of Electricity
Instruction in basic electrical principles, circuit design and application, and electrical components needed to comprehend the principles of electronic security systems. Pre-requisite: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

LSI 170(2) Course ID:004409
Electronic Access Control
Instruction in the latest security technology utilizing electronic access control systems, enabling the technician to design, install, and troubleshoot the latest electronic access control systems. Pre-requisite: LSI 160. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

MA Mathematics

MA 108R(3) Course ID:006621
Intermediate Algebra
This course is remedial in nature and covers material commonly found in second year high school algebra. Specific topics to be discussed include numbers, fractions, algebraic expression, simplifying, factoring, laws of exponents, linear equations, simple graphs and polynomial algebra. This course is not available for degree credit toward a bachelor’s degree. Credit not available on the basis of special examination. Pre-requisite: One year of high school algebra. Recommended for students with a Math ACTE score of 18 or less, or consent of department.

Components: Lecture
Attributes: Remedial - Mathematics, University Course
(University of Kentucky)

MA 109(3) Course ID:005805
College Algebra
Selected topics in algebra. Develops manipulative algebraic skills and mathematical reasoning required for further study in mathematics. Includes brief review of basic algebra, quadratic formula, systems of linear equations, introduction to functions and graphing. This course is not available for credit to persons who have received credit in any mathematics course of a higher number with the exceptions of MA 112, 123, 162, 201 and 202. Credit not available on the basis of special examination. Pre-requisite: Two years of high school algebra and a Math ACT score of 21 or above or a Math SAT score of 510 or above; or MA 108R (UK); or appropriate score on the math placement test. Lecture: 3 credits (45 contact hours).

Components: Lecture Course Equivalents: MAT 150
Attributes: University Course (University of Kentucky)

MA 110(4) Course ID:006622
Algebra and Trigonometry for Calculus
This is a course specifically designed for students intending to enroll in a calculus sequence. Topics will include trigonometric functions, exponentials and logarithms, graphs, polar coordinates, conic sections and systems of conics. Students may not receive credit for MA 110 and either of MA 109 or MA 112. This course is not available for credit to students who have received credit in any higher numbered mathematics course except for MA 123, 162, 199, 201 or 202. Credit is not available on the basis of special examination. Pre-requisite: Two years of high school algebra and a Math ACT score of 21 or above or a Math SAT score of 510 or above; or MA 108R (UK); or appropriate score on the math placement test. Lecture: 3 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).

Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 111(4) Course ID:006627
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 MA109 (UK) and MA 112 (UK), or MA 110 (UK), or consent of the department. Students who enroll in MA 113 based on their test scores should have completed a year of pre-calculus study in high school that includes the study of trigonometric functions. Note: Math placement test recommended. Lecture: 3 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).

Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course
(University of Kentucky)

MA 114(4) Course ID:006626
Calculus II
A continuation of MA 113, primarily stressing techniques of integration. Lecture, 3 hours; recitation, 2 hours per week. Pre-requisites: High school trigonometry or MA 112 (UK); and a grade of C or better in MA 113 (UK) or MA 132 (UK). Lecture: 3.0 credit hours (45 contact hours). Discussion: 1.0 credit (30 contact hours).

Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course
(University of Kentucky)

MA 123(4) Course ID:006628
Elementary Calculus and Its Applications
An introduction to differential and integral calculus, with applications to business and the biological and physical sciences. Not open to students who have credit in MA 113. Students who have received credit for MA 113 cannot receive credit for MA 123. Pre-requisites: Math ACT score of 26 or above, or Math SAT of 600 or above, or MA 109 (UK) or appropriate math placement score, or consent of department. Note: Math placement test recommended. Lecture: 4.0 credit hours (60 contact hours).

Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course
(University of Kentucky)

MA 162(3) Course ID:006628
Finite Mathematics and Its Applications
Finite mathematics with applications to business, biology, and the social sciences. Linear functions and inequalities, matrix algebra, linear programming, probability. Emphasis on setting up mathematical models from stated problems. Pre-requisites: Math ACT of 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)
MAI 105(3) Course ID: 004342
Mathematics for Elementary Teachers
Introduces the mathematical processes and properties necessary for developing a strong foundation in mathematics for elementary school education. Pre-requisites: MA 109 (UK) or MA 111 (UK). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MAI 140(1) 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. Assumes 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: 3 credits (45 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, mail processing, appointment scheduling, processing medical records, and an introduction to medical office computer software. Lecture: 3 credits (45 contact hours). Pre-requisite: Acceptance into the Medical Assisting program or consent of Medical Assisting Coordinator/Director.
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. Lecture: 2 credits (30 contact hours). Pre-requisite: Consent of Medical Assisting Coordinator/Director.
Components: Lecture
Attributes: Technical

MAI 200(3) Course ID: 004094
Pathophysiology for the Medical Assistant
Provides instruction related to common acquired diseases, congenital conditions, injuries, illnesses, and trauma situations as related to the major body systems. 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. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: MAI 120 with a grade of "C" or greater.
Components: Laboratory, Lecture
Attributes: Technical

MAI 230(3) Course ID: 004096
Department Consent Required
Medical Insurance
Provides an understanding of the insurance industry and its role in the patient's medical care. Assigns study guides and procedures for accurate coding systems using the ICD-9, CPT, and HCPCS coding system. Lecture: 2 credits (30 contact hours). Pre-requisite: Consent of Program Coordinator/Director.
Components: Lecture
Attributes: Technical

MAI 240(4) Course ID: 004097
Medical Assisting Clinical Procedures II
Continues instruction and application techniques for specialty examination, diagnostic testing and treatments modalities. Emphasizes fundamentals and practical applications of minor office surgical procedures. Lecture: 3 credits (45 contact hours). Lab: 1 credit (45 contact hours). Pre-requisite: MAI 140 with a grade of C or greater. Consent of Program Coordinator.
Components: Laboratory, Lecture
Attributes: Technical

MAI 250(3) Course ID: 004098
Medical Assisting Administrative Procedures II
Focuses on compiling and completing financial and insurance claim forms. Includes banking concepts, accounting systems frequently used in the medical office, payment procedures, insurance plans and claims, and electronic billing methods, and professional fees. Pre-requisite: MAI 150 with a grade of "C" or greater. Consent of Program Coordinator. Lecture/Lab: 3 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. Consent of Medical Assisting 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 Coordinator/Director.
Components: Clinical
Attributes: Technical

MAI 282(3) Course ID: 004102
Medical Assisting Externship
Provides the student with an observational and hands-on experience (unpaid) through observation and work assignments in a healthcare setting. Clinical: 3.0 credits (180 contact hours).
Components: Clinical
Attributes: Technical

MAI 284(2 - 3) Course ID: 015672
Medical Assisting Externship
Provides the student with an observational and hands-on experience (unpaid) through observation and work assignments in a healthcare setting. Clinical: 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 the 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 credits (30-60 contact hours).
Components: Laboratory
Attributes: Technical

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Course Descriptions
MAT 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 contact hours. Lecture: varies; Laboratory: varies. Pre-requisite: Consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

MAT 11(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 Post Secondary Education. Note: All courses in this program do not necessarily indicate that all prerequisites for any 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 50(1 - 2)  Course ID:004555
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 55(3)  Course ID:004555
Pre-Algebra
Includes operations on integers, decimals and fractions. Introduces exponents, square roots, percents, ratios, proportions, prime factorization, basic geometry, algebraic expressions, basic linear equations, and applications. Pre-requisite: KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics, Course Also Offered in Modules

MAT 55A(1.6)  Course ID:007338
Integers, Fractions and Decimals
Covers the properties of real numbers, prime factorization of whole numbers, rounding of whole numbers, and decimals to an indicated place value. Includes basic operations, order of operations, and absolute value of integers, fractions, and decimals. Permits the conversion among fractions, decimals, and percents; evaluation of whole number powers of integers, fractions, and decimals; and the evaluation of square roots of perfect squares of integers, fractions, and decimals. Pre-requisite: KCTCS placement examination. Lecture: 1.6 credits (24 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 55B(0.7)  Course ID:007339
Algebraic Expressions
Includes the evaluation of algebraic expressions, simplifying algebraic expressions, solving problems involving ratio and proportion, and solving problems involving percent. Pre-requisite: MAT 055A. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 55C(0.7)  Course ID:007340
Beginning Linear Equations
Uses both the addition and multiplication properties to solve a linear equation. Includes how to determine the length of the unknown side of a right triangle using the Pythagorean Theorem and to determine the perimeter, circumference, area, surface area, and volume of basic plane figures and solids. Covers how to solve applied problems using these competencies with real world applications. Pre-requisite: MAT 055B. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 62(3)  Course ID:007375
Intro to Workplace Mathematics
Prepares students for Business Mathematics, Applied Mathematics, and Technical Mathematics. Includes properties of algebra, solving linear equations, percentages, ratios, proportions, graphing lines, exponents, and measurement. Encourages applications of algebra and effective use of technology. Pre-requisite: MAT 055 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 65(3)  Course ID:004556
Basic Algebra
Includes linear equations and inequalities, integer exponents, polynomials, factoring, equations of lines and their graphs, systems of linear equations, and applications. 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 65A(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 65B(0.5)  Course ID:007342
Polynomials
Includes the application of rules of integer exponents; addition, subtraction, and multiplication of polynomials of one or more variables; and division of polynomials of one variable. Pre-requisite: MAT 065A. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 65C(0.8)  Course ID:007343
Lines
Includes plotting points in the rectangular coordinate plane; graphing a linear equation in two variables using multiple methods; determining the slope of a line given the two points, a graph, or an equation; determining the intercepts of a line; and determining if two lines are parallel, perpendicular, or neither based on slope. Pre-requisite: MAT 065B. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 65D(0.5)  Course ID:007344
Factoring
Includes the factoring of polynomials by finding the greatest common factor, by grouping, and by using special products. Covers factoring trinomials and solving polynomial equations by factoring. Pre-requisite: MAT 065C. Lecture: 0.5 credits (7.5 contact hours).
Components: Laboratory
Attributes: Remedial - Mathematics

MAT 65E(0.4)  Course ID:007345
Systems of Linear Equations
Includes solving systems of linear equations in two variables using multiple methods and solving applied problems using these competencies with real world applications. Pre-requisite: MAT 065D. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 75(4)  Course ID:015659
Mathematical Literacy
Develops the mathematical thinking skills and understanding needed for non-math and non-science majors, in an on-campus 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 85(3)  Course ID:007045
Intermediate Algebra
Involves rational expressions, radical expressions, rational exponents, graphing parabolas, inequalities, equations of lines, functions and applications, with emphasis on solving quadratic, rational, and radical equations. Pre-requisite: MAT 065 or MAT 075 or KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 96(1 - 2)  Course ID:015815
Supplemental Mathematics
Provides academic support for students scoring below the system-wide standard in 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 - 2.0 credits (15 - 30 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 100(2)  Course ID:002374
College Algebra Workshop
Provides parallel and supplemental review of algebra skills needed for success in college algebra for students with a Math ACT of 19-21. (Credit not available by special exam; withdrawal from MAT 100 requires withdrawal from MAT 150; can be offered pass/fail or letter grade basis.) Lecture: 2.0 credits (30 contact hours). Prerequisite: Concurrent enrollment in MAT 150. NOTE: Effective Fall 2010 ACT 19.
Components: Lecture
Attributes: Other, Course Also Offered in Modules

MAT 105(3)  Course ID:004557
Business Mathematics
Covers basic mathematical concepts as applied to finance. Includes percentages, simple and compound interest, annuities, sinking funds, depreciation, and consumer debt, including installment buying, credit cards, and mortgages. Pre-requisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS

MAT 110(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 equations of a line, percents, interest, descriptive statistics, and symbolic logic. Emphasizes applications in the various technologies. Pre-requisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules

MAT 116(3)  Course ID:004559
Technical Mathematics
Includes some mathematical concepts from algebra, geometry, and trigonometry and applications relevant to these topics. Includes unit conversions, variation, measurement of geometric figures, vectors, and solving right and oblique triangles using trigonometry. Emphasizes applications in the various technologies.
Pre-requisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules

MAT 126(3) Course ID:004562 Technical Algebra and Trigonometry
Examines mathematical concepts from algebra and trigonometry. Includes vectors, phasor algebra, variation, trigonometric functions, coordinate systems, system of linear equations, quadratic, rational, exponential, and logarithmic equations. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Quantitative Reasoning AAS

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, game theory, number theory, game theory, and set theory. Pre-requisite: 1. Math ACT score of 19 or above, 2. Successful completion of Intermediate Algebra, MAT 075, MAT 126, or equivalent, or 3. KCTCS placement exam recommendation. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules

MAT 150(3) Course ID:002376 College Algebra
Includes selected topics in algebra and analytic geometry. Develops manipulative skills and concepts required for further study in mathematics. Includes linear, quadratic, polynomial, rational, exponential, logarithmic and piecewise functions; systems of equations; and an introduction to analytic geometry. (Students may not receive credit for both MAT150 and any other College Algebra or Precalculus course. Credit not available on the basis of special exam.) Lecture: 3 credits (45 contact hours).

Pre-requisites: 1. Math ACT score of 22 or above, 2. Math ACT score of 19-21 with concurrent MAT 100, 3. Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 4. KCTCS placement exam recommendation. Components: Lecture Course Equivalents: MA 109 Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules

MAT 154(2) Course ID:000552 Trigonometry
Includes trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions, and inverse trigonometric functions. 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 Same As Offering: MAT 154 Course Equivalents: MAT 155 Attributes: QR - Quantitative Reasoning

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 Same As Offering: MAT 154 Course Equivalents: MAT 155 Attributes: QR - Quantitative Reasoning

MAT 155(3) Course ID:004563 Trigonometry
Includes trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions in rectangular and polar coordinates, and solving trigonometric equations. Emphasizes applications in each topic. (Students may not receive credit for both MAT155 and any other trigonometry or precalculus course.) Lecture: 3 credits (45 contact hours).


MAT 159(4) Course ID:000543 Analytic Geometry and Trigonometry
Includes trigonometric functions, trigonometric identities, graphs of trigonometric functions, and inverse trigonometric functions, polynomial and rational functions, the Algebra of functions, exponential and logarithmic functions, and systems of equations. The course is not available for credit by special examination. The course is not available for credit to persons who have received credit for college algebra/trigonometry course. Pre-requisite: Two years of high school algebra and a Math ACT score of 19 or above, or MA 105R (UK) or Math placement test. Lecture: 4.0 credits (60 contact hours).

Components: Lecture Course Equivalents: MAT 160 Attributes: QR - Quantitative Reasoning

MAT 160(5) Course ID:005312 Precalculus
Prepares students to enroll in a calculus sequence. Includes trigonometric functions, exponentials and logarithms, graphs, polar coordinates, conic sections, and systems of nonlinear equations. Students may not receive credit for both MAT 160 and either College Algebra or Trigonometry. Credit is not available by special examination. Lecture: 5 credits (75 contact hours).

Pre-requisite: 1. Math ACT score of 23 or above, 2. Placement exam recommendation, or 3. Consent of instructor. Components: Lecture Course Equivalents: MAT 159 Attributes: QR - Quantitative Reasoning

MAT 165(3) Course ID:005316 Finite Mathematics and Its Applications
Examines finite mathematics with applications to business, biology and the social sciences including linear functions and inequalities, matrix algebra, linear programming, probability and emphasis on setting up mathematical models from stated problems. Lecture: 3 credits (45 contact hours).

Pre-requisite: MAT 150 or equivalent. Components: Lecture Attributes: QR - Quantitative Reasoning

MAT 169(3) Course ID:005314 Brief Calculus with Applications
Provides an introduction to differential and integral calculus with applications in biological, social sciences, physical sciences, or business with an analysis of algebraic, exponential, and logarithmic functions. (Students may not receive credit for both MAT 165 and MAT 175.) Lecture: 3 credits (45 contact hours).

Pre-requisite: Successful completion of MAT 150 or Math ACT 27 or above. Components: Lecture Attributes: QR - Quantitative Reasoning

MAT 170(3) Course ID:005314 Calculus I
Includes topics from analytic geometry, derivatives and integrals of elementary functions, trigonometric functions, exponential functions, and logarithmic functions, and their applications. A course in one variable calculus. Pre-requisite: MATH ACT score of 27 or above, or MAT 150 and MAT 154, or MAT 159, or consent of instructor. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Course Equivalents: MAT 175 Attributes: QR - Quantitative Reasoning

MAT 175(5) Course ID:005315 Calculus I
Examines one-variable calculus including limits, differentiation and integration of algebraic, trigonometric, exponential, logarithmic, hyperbolic, and inverse trigonometric functions with applications. Lecture: 5 credits (75 contact hours).

Pre-requisite: 1. College Algebra and Trigonometry, or equivalent, with grades of "C" or higher, 2. Math ACT 27 or above, 3. Placement exam recommendation, or 4. Consent of instructor. Components: Lecture Course Equivalents: MAT 174 Attributes: QR - Quantitative Reasoning

MAT 184(4) Course ID:000557 Calculus II
Stresses techniques of integration and infinite series. Includes transcendental functions and polar coordinates. A continuation of MAT 174. Pre-requisite: MAT 174 with a grade of C or above. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Course Equivalents: MAT 185 Attributes: QR - Quantitative Reasoning

MAT 185(5) Course ID:005316 Calculus II
Includes applications of integration, advanced integration techniques, sequences and infinite series, and parametric and polar equations. Pre-requisite: Calculus I, or equivalent, with grade of "C" or higher, or consent of the instructor. Lecture: 5.0 credits (75 contact hours).

Components: Lecture Course Equivalents: MAT 184 Attributes: QR - Quantitative Reasoning

MAT 190(1 - 2) Course ID:004564 Instructor Consent Required Mathematics Workshop
Promotes student success in mathematics by providing supplemental instruction in the form of extra class sessions. Pre-requisite: Mathematics course numbered higher than MAT100. Lab: 1.0 - 2.0 credits (30-60 contacthours).

Components: Laboratory Attributes: Other

MAT 195(1 - 2) Course ID:015479 Mathematics Workshop
Promotes student success in mathematics by providing supplemental instruction in the form of extra class sessions. Co-requisite: Mathematics course numbered higher than MAT100. Lab: 1.0-2.0 credits (30-60 contacthours).

Components: Laboratory Attributes: Other

MAT 205(3) Course ID:005622 Mathematics For Elementary and Middle School Teachers I
Introduces problem solving, number and numeration systems, whole numbers, integers, rational and irrational numbers, and elementary number theory. Requires demonstration of basic skills in mathematics to receive credit in this course. Pre-requisite: If yes, list: MAT 146 or MAT 150 or equivalent, with a minimum grade of "C". Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Other

MAT 206(3) Course ID:005623 Mathematics For Elementary and Middle School Teachers II
Introduces probability and statistics; geometric concepts including congruence and similarity; and measurement. Required demonstration of basic skills in mathematics to receive credit in this course. Pre-requisite: MAT 146 or MAT 150 or equivalent, with a minimum grade of "C". Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Other

MAT 213(4) Course ID:006894 Calculus III with Linear Algebra
Examines multivariate calculus. Includes partial differentiation, multiple integration, vector calculus, and selected topics from linear algebra including matrices, linear independence of vectors, linear transformations, characteristic values and vectors. Offered primarily for STEM majors. Pre-requisite: Successful completion of Calculus II. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Attributes: Other
MAT 214(3) Course ID:006895
Calculus IV
Focuses primarily on first and second order equations. Includes matrix solutions of systems of linear differential equations, both homogeneous and nonhomogeneous. Also includes series solutions, Bessel equations, Laplace transforms, and operator methods. Primarily for STEM majors. Pre-requisite: Successful completion of Calculus III with Linear Algebra. Lecture: 3.0 credits (75 contact hours).
Components: Lecture

MAT 261(3) Course ID:003966
Introduction to Number Theory
Investigates topics from classical number theory, including discussions of mathematical induction, primenumbers, division algorithms, congruences, and quadratic reciprocity. Pre-requisite: Consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 275(4) Course ID:005318
Calculus III
Examines multivariable calculus including parametric equations; rectangular, cylindrical, and spherical coordinate systems; vectors and vector-valued functions; limits and derivatives of functions of several variables; multiple integration; and line and surface integrals. Pre-requisite: MAT 185 or equivalent. Consent of instructor. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 285(3) Course ID:005319
Differential Equations
Examines ordinary differential equations emphasizing first and second order equations and applications. Includes series solutions of second order equations and Laplace transform methods. Pre-requisite: MAT275 or Consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 851(0.3) Course ID:007329
Equations of Lines
Covers the writing equations of lines from given data, verbal descriptions, and graphs; and writing the equation of a line parallel or perpendicular to a given line. Pre-requisite: MAT 085 or MAT 075 or KCTCS placement examination. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 852(0.6) Course ID:007330
Absolute Value and Inequalities
Includes solving absolute value equations, compound inequalities, solving and graphing absolute value equations, and graphing linear inequalities in two variables. Pre-requisite: MAT 085L. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 853(0.4) Course ID:007331
Rational Expressions
Includes the simplification of rational expressions, performing basic operations with rational expressions, and solving equations with rational expressions. Pre-requisite: MAT 0852. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 854(0.6) Course ID:007332
Radicals
Covers the conversion between radical and rational exponent form, simplification of radicals, performance of operations with radicals, and the solution of equations involving radicals. Pre-requisite: MAT 0853. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 855(0.3) Course ID:007333
Quadratics
Includes solving quadratic equations with complex solutions using completing the square and the quadratic formula. Covers graphing parabolas by finding the vertex, finding the axis of symmetry, and plotting points. Pre-requisite: MAT 0854. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 856(0.8) Course ID:007334
Functions
Includes the evaluation of a function using function notation, determination of whether a given correspondence graph represents a function, determination of the domain of a function, and identification of the range of a function. Includes modeling and solving applications based on linear, quadratic, and exponential functions. Pre-requisite: MAT 0855. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 1051(1.2) Percent & Interest
Course ID:006652
Covers basic mathematical concepts as applied to finance. Includes percentages, simple and compound interest. Pre-requisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS Placement Examination. Lecture: 1.2 credits (18 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 1052(0.9) Mortgages & Depreciation
Covers basic mathematical concepts as applied to finance. Includes annuities, sinking funds, installment buying, and credit cards. Pre-requisites: MAT 1051. Lecture: 0.9 credits (13.5 contact hours).
Components: Lecture

MAT 1053(0.9) Annuities & Sinking Funds
Covers basic mathematical concepts as applied to finance. Includes annuities, sinking funds, installment buying, and credit cards. Pre-requisite: MAT 1051. Lecture: 0.9 credits (13.5 contact hours).
Components: Lecture

MAT 1101(0.7) Logic and Reasoning
Course ID:006142
Investigates concepts of logical symbolism, valid and invalid arguments. Uses applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.7 credit (10.5 contact hours).
Components: Lecture

MAT 1102(0.8) Statistics
Course ID:006143
Develops concepts of descriptive statistics. Emphasizes applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

MAT 1103(0.7) Algebra and Graphing
Course ID:006144
Develops concepts of ratio and proportion, linear equations in two variables, inequalities, graphing and writing the equation of a line. Emphasizes applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.7 credit (10.5 contact hours).
Components: Lecture

MAT 1104(0.8) Consumer Math, Geometry and Measurement
Course ID:006145
Develops concepts of ratio and proportion, measurement, units and conversions, percents and interest. Emphasizes applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

MAT 1161(1) Technical Trigonometry
Course ID:006438
Investigates mathematical concepts from trigonometry including vectors and solving right and oblique triangles. Uses applications relevant to trigonometry from the various technologies. Pre-requisite: MAT 65 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

MAT 1162(1) Technical Measurement
Course ID:006439
Investigates mathematical concepts from algebra and geometry. Uses applications from the various technologies relevant to these topics including unit conversion and measurement of geometric figures. Pre-requisite: MAT 65 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

MAT 1163(1) Technical Geometry and Variation
Course ID:006440
Use applications relevant to trigonometry from the various technologies relevant to these topics including unit conversion and measurement of geometric figures. Pre-requisite: MAT 65 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

MAT 1461(0.4) Voting Theory
Course ID:015855
Explain voting theory and describe voting methods. Pre-requisite: Math ACT score of 19 or above, 2. Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 3. KCTCS placement exam recommendation. Lecture: 0.4 credits (6 contact hours)
Components: Lecture

MAT 1462(1.1) Finance
Course ID:015856
Analyze finance, calculate compound interest, analyze savings plans and investments, calculate installment payments, calculate income taxes, and analyze budgets. Pre-requisite: MAT 1461. Lecture: 1.1 credits (16.5 contact hours).
Components: Lecture

MAT 1463(0.5) Technical Measurements
Course ID:015857
Investigates mathematical concepts from algebra and geometry. Uses applications from the various technologies relevant to these topics including unit conversion and measurement of geometric figures. Pre-requisite: MAT 65 or equivalent as determined by KCTCS placement examination. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

MAT 1464(1) Contemporary Math Special Topics
Course ID:015858
Investigates mathematical concepts from algebra and geometry. Uses applications from the various technologies relevant to these topics including unit conversion and measurement of geometric figures. Pre-requisite: MAT 65 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MAT 1501(0.8) Linear and Quadratic Functions
Course ID:006146
Develops manipulative skills and concepts of linear and quadratic functions required for further study in mathematics. Includes systems of equations. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Pre-requisite: Math ACT score of 22 or above; Successful completion of Intermediate Algebra or MAT126 or equivalent; or KCTCS placement exam recommendation. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

MAT 1502(0.8) Polynomial, Rational and Piecewise Functions
Course ID:006147
Develops manipulative skills and concepts of polynomial, rational and piecewise functions required for further study in mathematics. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Pre-requisite: MAT 1501. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
MAT 1503(0.8) Course ID:006148
Exponential and Logarithmic Functions (Exponential & Logarithmic Funkt)
Develops manipulative skills and concepts of exponential and logarithmic functions required for further study in mathematics. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Pre-requisite: MAT 1502. Lecture: 0.8 credit (12 contacthours).
Components: Lecture

MAT 1504(0.6) Course ID:006149
Applications of Functions
Includes selected topics in algebra and analytic geometry. Develops manipulative skills and concepts required for further study in mathematics. Includes an introduction to analytic geometry. Students may not receivc credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Pre-requisite: MAT 1503. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

MAT 1601(0.7) Course ID:016544
Graphing Techniques
Prepares students to enroll in a calculus sequence. Includes graphing techniques for functions and circles. Pre-requisites: One of the following: 1) Math ACT score of 23 or above; 2) Placement exam recommendation; or 3) Consent of instructor. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture

MAT 1602(0.9) Course ID:016545
Functions
Prepares students to enroll in a calculus sequence. Includes operations on polynomial and rational functions, combinations of functions, complex numbers, and the difference quotient. Pre-requisite: MAT1601. Lecture: 0.9 (13.5 contact hours)
Components: Lecture

MAT 1603(0.9) Course ID:016546
Exponential and Log Functions
Prepares students to enroll in a calculus sequence. Includes the properties of inverse functions, specifically exponential and logarithmic functions. Pre-requisite: MAT1602. Lecture: 0.9 (13.5 contact hours)
Components: Lecture

MAT 1604(0.9) Course ID:016547
Trigonometric Functions
Prepares students to enroll in a calculus sequence. Includes an introduction to trigonometric functionsthrough the unit circle and through the right triangle. Pre-requisite: MAT 1603. Lecture: 0.9 credits (13.5 contact hours)
Components: Lecture

MAT 1605(0.9) Course ID:016548
Applications of Trigonometry
Prepares students to enroll in a calculus sequence. Includes applications of trigonometry including proving identities, solving equations, graphing, solving triangles, and using polar coordinates. Pre-requisite: MAT 1604. Lecture: 0.9 (13.5 contact hours)
Components: Lecture

MAT 1606(0.7) Course ID:016549
Conic Sections
Prepares students to enroll in a calculus sequence. Includes conic sections and solving systems of nonlinear equations. Pre-requisite: MAT 1605. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture

MAT 1701(0.6) Course ID:016157
Limits
Approximate limits graphically and numerically; evaluate limits analytically; list the conditions for the continuity of a function at a point; determine if a function is continuous or discontinuous at a point; determine the intervals of continuity of a function; and evaluate infinite limits and limits at infinity. Pre-requisite: Successful completion of Math 150 or Math ACT 27 or above. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

MAT 1702(0.6) Course ID:016158
Differentiation
Define the derivative of a function; evaluate the derivative of a function using the definition; evaluate the derivative of a function using differentiation rules for algebraic functions and the product, quotient, and chain rules; use the derivative of a function to find the equation of a tangent line; perform implicit differentiation; define the differential; and use differentials to approximate function values. Pre-requisite: MAT 1701. Lecture: 0.6 credits (12 contact hours).
Components: Lecture

MAT 1703(0.6) Course ID:016159
Differentiation Applications
Determine critical points; determine intervals on which a function is increasing or decreasing; identify relative extrema; identify inflection points and intervals on which a function is concave up or concave down. Solve application problems involving relative rates and optimization for biological, social, or physical sciences and business. Determine whether a function is differentiable at a point. Find the derivative of functions including polynomial, rational, root, exponential, and logarithmic functions. Pre-requisites: MAT1702. Lecture: 0.6 credits. (9 contact hours)
Components: Lecture

MAT 1704(0.5) Course ID:016160
Integration
Discuss the fundamental theorem of calculus. Find the average value of a function. Find indefinite and definite integrals of a function using integration rules for algebraic functions. Find definite and indefinite integrals using substitution. Pre-requisite: MAT 1703. Lecture: 0.5 credits (7.5 contact hours)
Components: Lecture

MAT 1705(0.5) Course ID:016161
Applications of Integration
Use definite integrals of find the area under a curve and between two curves. Find the integral of function using the sum function rule. Find the area of regions in two dimensions. Pre-requisite: MAT 1704. Lecture: 0.5 credits (7.5 contact hours)
Components: Lecture

MAT 1751(1) Course ID:016550
Limits
Examines limits in one-variable calculus. Pre-requisite: One of the following: 1) College Algebra and Trigonometry, or equivalent, with grade of “C” or higher; 2) Math ACT 27 or above; 3) Placement exam recommendation; or 4) Consent of instructor. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

MAT 1753(1) Course ID:016552
Differenntiation Applications
Examines one-variable calculus differentiation of algebraic and trigonometric functions with applications. Pre-requisite: MAT 1752. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

MAT 1754(1) Course ID:016558
Integration
Examines integration of algebraic and trigonometric functions with applications in one-variable calculus. Pre-requisite: MAT 1753. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

MAT 1755(1) Course ID:016559
Transcendental Functions
Examines differentiation and integration of exponential, logarithmic, hyperbolic, and inverse trigonometric functions with applications in one-variable calculus. Pre-requisite: MAT1754. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

MAT 1851(1.2) Course ID:016560
Applications of Integration
Examines applications of integration including volumes of revolution, arc length, center of mass, and work. Pre-requisite: Calculus I, or equivalent, with grade of “C” or higher, or Consent of instructor. Lecture: 1.2 credits (18 contact hours)
Components: Lecture

MAT 1852(1.3) Course ID:016561
Advanced Integration Methods
Examines advanced integration techniques in one-variable calculus. Pre-requisite: Calculus I, or equivalent, with grade of “C” or higher, or Consent of instructor. Lecture: 1.3 hours (19.5 contact hours)
Components: Lecture

MAT 1853(1.3) Course ID:016562
Sequences and Infinite Series
Examines sequences and infinite series. Pre-requisite: Calculus I, or equivalent, with grade of “C” or higher, or Consent of instructor. Lecture: 1.3 credits (19.5 contact hours)
Components: Lecture

MAT 2052(0.6) Course ID:016756
Rational Numbers
Includes models of fractions and decimals; operations, repeating and non-repeating decimals, relationships of fractions, decimals, percents and ratios, and applications. Pre-requisite: MAT 2051. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

MAT 2061(0.75) Course ID:016760
Geometry
Includes geometric visualization skills and representations of two- and three-dimensional shapes, two-dimensional symmetries; basic fundamental geometric objects, angles, plane isometries, congruence, similarity and proportional reasoning; and software to explore shapes. Pre-requisite: MAT 146 or MAT 150 or equivalent, with a minimum grade of “C”. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

MAT 2062(0.75) Course ID:016761
Measurement
Includes identifying and comparing standard and non-standard systems of units; appropriateness and estimation of units, measurement; length, area, volume, and surface area and their relationships, and calculation formulas; composite regular and non-regular shapes. Pre-requisite: MAT 2061- Geometry. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

MAT 2063(0.75) Course ID:016762
Data and Statistics
Includes describing and understanding data, dispersion and measures of central tendency; forms of graphical representations, communication and comparison; communicating conclusions through summary statistics; and recognition of ways that statistics and graphic displays can be misleading. Pre-requisite: MAT 2062- Measurement. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

MBS Course Descriptions

MBS 100(2) Course ID:001673
Introduction to the Health Care Field
This course is designed to acquaint/teach the student with legal issues and ethical concerns as they apply to the patients’ medical records. "Student must maintain a 2.0 GPA in A & P to continue in the program
Components: Lecture
Attributes: Technical

MBS 110(6) Course ID:001676
Medical Insurance and Claims Processing
Provides an in-depth knowledge of the various insurance programs, including rules, regulations and guidelines, and follow-up for Medicare, Medicaid, Commercial Insurance, and managed care (HMO), and complete insurance forms.

manually for reimbursement. Lecture: 6 credits (90 contact hours). Pre-requisite: ((AHS 109 or BIO 130 or 135 or (BIO 137 and BIO 139) and (AHS 115 or CLA 131 or OST 103) and Computer Literacy and MBS 100) with a grade of C or better or consent. Co-requisite: MBS 120.

Components: Lecture
Attributes: Technical

MBS 120(8) Course ID: 001678 Coding for Reimbursement Prepares the student to code for optimum reimbursement using the ICD, CPT, and HCPCS codes for patient diagnoses and procedures. Pre-requisite: ((AHS 109 or BIO 130 or 135 or (BIO 137 and BIO 139) and (AHS 115 or CLA 131 or OST 103) and Computer Literacy and MBS 100) with a grade of C or better) or consent. Co-requisite: MBS 110.

Components: Lecture
Attributes: Technical

MBS 199(1 - 8) Course ID: 001680 Internship Applies practical knowledge to the outpatient healthcare setting. The student will be assigned a healthcare preceptor at the affiliate site. *This course may be taken for 1-8 credits. Pre-requisites: (MBS 110 and MBS 120) or Consent

Components: Practicum
Attributes: Technical

ME Mechanical Engineering

ME 205(3) Course ID: 004291 Introduction to Computer Graphics Combines freehand sketching techniques, both orthographic and pictorial, and the use of a solid modeling program to describe and define mechanical objects using current industrial standards. An introduction to basic dimensioning and tolerancing techniques is included. Lecture: 2.0 credit hours, Laboratory: 4.0 credit hours per week.

Components: Laboratory, Lecture
Attributes: Technical


Components: Lecture
Attributes: Technical

MES Mechatronic Systems

MES 110(4) Course ID: 005485 Mechatronic Systems Electrical Components Introduces the systems approach to the operation of electrical components and the relationship to voltage, current, resistance, and power in industrial systems. Provides an overview of alternating and direct current fundamentals. Pre-requisite: (COMPASS Scores of Pre-Alg-31; Reading-70; English-39) or (ACT Score of 19 in Math and Reading and 18 in English). Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

MES 120(4) Course ID: 005486 Mechatronic Systems Mechanical Components Introduces the systems approach to the operation of mechanical components and the relationship to current/voltage, resistance, and power in industrial systems. Provides an overview of rotating machinery fundamentals. Pre-requisite: (COMPASS Scores of Pre-Alg-31; Reading-70; English-39) or (ACT Score of 19 in Math and Reading and 18 in English). Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

MES 130(4) Course ID: 005487 Mechatronic Systems Hydraulic / Pneumatic Components Introduces the systems approach to the operation of hydraulic/pneumatic components and the relationship of their application in industrial systems. Provides an overview of fundamental components. Pre-requisite: (COMPASS Scores of Pre-Alg-31; Reading-70; English-39) or (ACT Score of 19 in Math and Reading and 18 in English). Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical
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; Course Equivalents: BAS 200
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
Principles of Management
Provides students with an overview of management 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 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. The student is introduced to the role of the supervisor, emphasizing human relations skills and the importance of supervising the supervisor's role and responsibilities are identified and developed. Pre-requisite: MGT 283 or consent of the instructor. Lecture: 3 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 determining tools, and skills, rope management, knots, and rappelling/belaying techniques), and Basic Marksmanship. Additionally, cadets will receive an overview of Army Officer’s Commission and the leadership skill necessary to succeed in any chosen career. Special attention will be given to the opportunities afforded an Army officer. The course is structured around the development of an Army Officer Candidate. Lecture: 2.0 credits (2 contact hours).
Components: Lecture
Attributes: University Course (Western Kentucky University)

MIL 102(3)  Course ID:004510
Medical Information Technology
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 MGT 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)  Course ID:004509
Advanced Medical Coding
Applies advanced coding rules for various coding systems and applies the rules to code patient services for accuracy. Satisfactory completion of this course may be used to fulfill a General Education Category Requirement at Western Kentucky University (WKU). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 208(3)  Course ID:004507
Inpatient Coding
Designed for students who have completed an entry-level coding course and are ready to move into more advanced hospital coding. Emphasizes inpatient coding using current government mandated coding systems. Pre-requisite: MIT 204. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 212(1)  Course ID:004506
Instructor Consent Required
Medications
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)  Course ID:004107
Medical Office Procedures
Provides a working knowledge of the duties required in a medical office. Includes professional and career responsibilities, interpersonal communication, administrative responsibilities, and financial administration. Pre-requisite Or Co-requisite: GST 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
MIT 219(3) Course ID:006970
Coding Exam Preparation
Designed to prepare medical coding students to take a certifying exam to become a professional outpatient coder as offered by AAPC or PHIA. Includes outpatient coding cases and review of medical terminology, basic anatomy, basic pathophysiology, reimbursement issues, and advanced coding guidelines for CPT, ICD-9-CM, and HCPCS coding systems. Pre-requisite: (MIT 204 and MIT 205) or MBS 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 224(3) Course ID:016402
Medical Practice Management
Introduces students to medical practice management from the 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 227(3) Course ID:004108
Medical Office Software
Provides a working knowledge of computer management software in a simulated medical office setting. Pre-requisite: (MIT 103 or AHS 115 or CLA 131) and Computer Literacy. Co-requisite: MIT 217. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 230(3) Course ID:004109
Medical Information Management
Components: Lecture
Attributes: Technical

MIT 253(3) Course ID:006971
Medical Information Technology Capstone
Enhances the student’s transition from class to work by providing unpaid learning activities related to the MIT field. Integrates work experience with academic instruction. Includes an internship, field experiences, and/or simulation work experiences in which the student applies previously or concurrently learned concepts to practical work situations within the MIT field. Pre-requisite: Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours). Practicum: 2.0 credits (120 contact hours).
Components: Lecture, Practicum
Attributes: Technical

MIT 296(1 - 3) Course ID:007326
Medical Information Technology Internship
Enhances transition from school to work by providing non-paid work experience which provides the opportunity to apply acquired occupational skills in a realistic setting. Requires approval of the MIT Program Coordinator. Pre-requisite: Consent of instructor. Pre-requisite: Consent of Program Coordinator. Practicum: 1.0 - 3.0 credits (45-135 contact hours).
Components: Practicum
Attributes: Technical

MIT 1031(1) Course ID:016393
Intro to Med Terms & Systems
Introduces medical terminology including root words, prefixes and suffixes as well as general medical terms. Introduces medical terms related to the skeletal, muscular, blood, lymph, cardiovascular, respiratory, digestive, and urinary systems. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 1032(1) Course ID:016394
Intermediate Body Systems
Introduces medical terms related to the blood, lymph, cardiovascular, respiratory, digestive, and urinary systems as well as skin. Pre-requisite: MIT 1031. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 1033(1) Course ID:016395
Diagnosics and Pharmacology
Introduces the nervous, endocrine, reproductive systems as well as eyes and ears. Introduces medical terminology related to pharmacology and diagnostic and imaging procedures. Pre-requisite: MIT 1032. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 1041(1) Course ID:016396
Intro to Medical Insurance
Introduces the basics of medical insurance including insurance terminology and government programs. Pre-requisite OR Co-requisite: MIT 103 or MIT 1033 or AHS 115 or CLA 131. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 1042(1) Course ID:016397
Medical Coding Overview
Introduces various coding systems. Pre-requisite: MIT 1041. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 1043(1) Course ID:016398
Intro to Medical Forms
Introduces general insurance procedures and forms. Pre-requisite: MIT 1042. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 217(3) Course ID:006949
Admin and Financial Management
Provides knowledge of administrative responsibilities and financial administration in the medical office. Pre-requisite: MIT 2172. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2171(1) Course ID:016847
Careers in the Medical Office
Analyzes professional and career opportunities in the medical office. Prepare for an interview and create employment communications. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2172(1) Course ID:016848
Records Management
Provides knowledge of records management and medical abbreviations and terminology in the medical office. Pre-requisite: MIT 2171. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2241(1) Course ID:016875
Managing the Medical Office
Emphasizes the healthcare setting, medical office communications, and human resource management. Pre-requisite OR Co-requisite: MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2242(1) Course ID:016876
Managing the Medical Record
Focuses on the correct use, care, regulations and rules concerning medical records. Pre-requisite OR Co-requisite: MIT 2241 or MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2243(1) Course ID:016877
Medical Office Revenue Cycle
Emphasizes accounting and payroll as well as marketing of the medical office. Pre-requisite OR Co-requisite: MIT 2242, MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2281(1) Course ID:016403
Intro to E-Health Records
Provides an introduction to electronic health records and gives students a working knowledge of industry-standard electronic medical records software program emphasizing ethical and regulatory issues and methods. Pre-requisite: MIT 227 or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2282(1) Course ID:016404
Clinical Office Administration
Provides a working knowledge of computerized medical records software in the medical office. Emphasizes creating, maintaining patient records and maintain office scheduling. Pre-requisite: MIT 2281 or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2283(1) Course ID:016853
Coding Practice and Case Studies
Reinforces coding through practice and case studies in the inpatient hospital setting. Pre-requisite: MIT 2082 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2081(1) Course ID:016843
Diagnosis Coding
Examines diagnosis coding using current government mandated coding systems. Pre-requisite: MIT 204 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2082(1) Course ID:016852
Procedure Coding
Examines procedure coding using current government mandated coding systems. Pre-requisite: MIT 2081 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2043(1) Course ID:016400
Inpatient Coding
Develops medical coding skills for inpatient coding systems. Includes reimbursement methodologies and advancement practices for inpatient coding. Pre-requisite: MIT 2041 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2042(1) Course ID:016401
Outpatient Coding
Develops medical coding skills for outpatient coding systems. Includes reimbursement methodologies and advancement practices for outpatient coding. Pre-requisite: MIT 2042 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2041(1) Course ID:016399
Coding Systems
Develops medical coding skills using government mandated coding systems. Includes review of health records, selection of codes, interaction with physicians, and more. Pre-requisite: MIT 104 or Consent of Instructor. Co-requisite: BIO 135 or Equivalent; MIT 104. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2043(1) Course ID:016402
Outpatient Coding
Develops medical coding skills for outpatient coding systems. Includes reimbursement methodologies and advancement practices for outpatient coding. Pre-requisite: MIT 2042 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2042(1) Course ID:016400
Inpatient Coding
Develops medical coding skills for inpatient coding systems. Includes reimbursement methodologies and advancement practices for inpatient coding. Pre-requisite: MIT 2041 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2081(1) Course ID:016843
Diagnosis Coding
Examines diagnosis coding using current government mandated coding systems. Pre-requisite: MIT 204 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2082(1) Course ID:016852
Procedure Coding
Examines procedure coding using current government mandated coding systems. Pre-requisite: MIT 2081 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
MKT 282(3) Principles of Marketing
Introduction to Marketing
Introduces the marketing function and how it is organized in various types of business organizations. Focuses on the marketing mix of product, price, distribution and promotion with attention to the marketing concept. Explores the impact of social responsibility and international marketing on the marketing function. Pre-requisite: BAS 160 or MGT 160 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

MLT 101(3) Medical Laboratory Technology
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 (75 contact hours)

Components: Laboratory, Lecture Attributes: Technical

MKT 112(2) Urinalysis
Focuses on methodology and clinical significance of urine chemical analysis, interference 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 to 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: 2.0 credits (45 contact hours).

Components: Lecture Attributes: Technical
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 hematopoiesis and classic methodologies of standard hematological procedures. Includes the principles of various automated hematologic analyzers, histograms and scattergrams. Provides students with the opportunity to perform basic hematologic and coagulation procedures, correlate laboratory data to aid in diagnosis, and describe methodology of procedures and their clinical significance. Includes mechanisms of coagulation, routine coagulation testing, disease states associated with coagulation abnormalities, platelet evaluation, fibrinolysis and anticoagulant therapy. Pre-requisite: MLT 101 with a grade of "C" or greater OR admission into the MLT program OR permission by MLT program coordinator. Lecture/Lab: 4.0 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 hematologic procedures. Includes collection and processing of proper specimens, performance of quality control, and analysis of fundamental hematological parameters to aid in diagnosis. Pre-requisite: Admission into the MLT program OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

MLT 218(4) Course ID:006402
Clinical Hematology
Continues the study of hematology. Includes hemostasis, anemias, leukemias, lymphomas, miscellaneous abnormal white blood cell disorders, body fluid analysis and other special hematologic procedures. 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 101 with a grade of "C" or greater. Permission into the MLT program; permission by MLT program director/coordinator. Lecture: 1.0 credit (15 contact hours). Laboratory: 1.0 credit (45 contact hours).

Components: Laboratory, Lecture Attributes: Technical

MLT 226(2) Course ID:004186
Immunohematology II
Includes antibody screening and panel interpretation, compatibility testing, viral markers and related disease states, hemolytic disease, and HLA markers. Pre-requisite: MLT 225 or Permission by MLT Program Director/Coordinator. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MLT 227(4) Course ID:004570
Immunohematology
Covers principles and practices in blood banking, including topics such as blood group systems, blood components, antibody identification and compatibility testing. Pre-requisite: MLT 101 with a grade of "C" or greater. Permission of MLT program director/coordinator. Lecture: 4 credits (105 contact hours).

Components: Lecture Attributes: Technical

MLT 233(5) Course ID:004187
Clinical Chemistry I
Provides a review of basic inorganic chemistry and organic chemistry principles and types of instrumentation commonly used in a medical laboratory. Covers carbohydrates, non-protein nitrogen compounds, proteins, lipids and enzymes as related to clinical diagnosis. Introduces quality control procedures, including statistical calculations for graph preparation and interpretation of gathered data. Pre-requisite: MLT 101 with a grade of "C" or greater and admission into the MLT program or MLT Program Coordinator/Director Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture 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 toasses carbohydrates, non-protein nitrogen compounds, amino acids and proteins, lipids and lipoproteins, and enzymes as related to clinical diagnosis. Acquaints the student with basic laboratory mathematics and quality assurance procedures utilized in the clinical laboratory department. Pre-requisite: Admission into MLT program OR permission of the MLT Clinical Coordinator/MLT Program Director. Lecture/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 Attributes: Technical

MLT 278(2 - 2.5) Course ID:005340
Practicum I Part 1
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT Program Director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: MLT 101 with a grade of "C" or better OR Admission into MLT program OR permission by MLT Program Director/Coordinator. Practice: 4-5 credits (240-300 contact hours).

Components: Practicum Attributes: Course Also Offered in Modules, Technical

MLT 279(4 - 5) Course ID:005425
Practicum II
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT Program Director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: MLT 101 with a grade of "C" or better OR Admission into MLT program OR permission by MLT Program Director/Coordinator. Practice: 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 27812(2 - 2.5) Course ID:005340
Practicum I Part 1
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT program director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: MLT 101 with a grade of "C" or greater OR admission into the program. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MLT 2782(2 - 2.5) Course ID:005341
Practicum I Part 2
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory.
Utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the clinical 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: MNT 107 with a grade of "C" or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MLT 2791(2 - 2.5) Course ID:005342

Practicum II Part 1

Develops career entry level performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Provides an opportunity for more responsibility and independence with previously learned procedures. Enables the student's transition to the world of work by providing work experiences in actual 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 clinical laboratory for each individual student by the MLT program director. Pre-requisite: MNT 101 with a grade of "C" or greater; OR admission to the MLT program. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MLT 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. Enables the student's transition to the world of work by providing work experiences in actual 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 clinical laboratory for each individual student by the MLT program director. Pre-requisite: MNT 2791 with a grade of "C" or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MNA Medicaid 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 1396r 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:005576

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, permissibility, underground and surface law, solid-state, and national instruments and applications. Co-requisite: MNG 125. Lecture: 4.0 credit hours (60 contact hours). Components: Lecture 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, permissibility and maintenance. Co-requisite: MNG 125. Laboratory: 1.0 credits (30 contact hours).

Components: Laboratory Attributes: Technical

MNG 150(3) Course ID:005087

Mining Laws

Provides the theory, intent, construction and application of state and federal regulations pertaining to underground and surface coal mining. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 160(3) Course ID:006646

Elements of Underground Mining Lab

Introduces underground mining methods, operations, and procedures. Includes topics of miners' rights, work environments, health and safety standards, roof control, mine ventilation, transportation, communication, compressed gas cylinders, explosives, mine gases and instruments, electrical hazards, accident prevention, and emergency procedures. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 161(1) Course ID:006647

Elements of Underground Mining Lab

Applies the principles and policies of mining methods, operations, and procedures in a controlled laboratory environment. Focuses on the skills associated with the information taught in the paired underground mining lecture course. Pre-requisite OR Co-requisite: MNG 160. Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory Attributes: Pilot Course, Technical

MNG 170(2) Course ID:006648

Elements of Surface Mining Lab

Introduces study of surface mining methods, operations, and procedures. Includes topics of miners' rights, work environments, ground control, health and safety standards, transportation, communication, compressed gas cylinders, explosives, mine gases and instruments, electrical hazards, accident prevention, and emergency procedures. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

MNG 171(1) Course ID:006649

Elements of Surface Mining Lab

Applies the principles and policies of mining methods, operations, and procedures in a controlled laboratory environment. Focuses on the skills associated with the information taught in the paired lecture course on surface mining. Pre-requisite OR Co-requisite: MNG 170. Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory Attributes: Pilot Course, Technical

MNG 180(3) Course ID:006789

Environmental Issues in Mining Lab

Introduces topics of how underground and surface mining operations impact the environment in a multitude of ways. Includes basic information related to geological formations in mining and structure of coal material. Relates methods to mitigate negative effects of mining. Discusses methods to repair damage to environment. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 185(3) Course ID:007371

Mining Permissibility

Co-requisite: AHS 109 and AHS 115 with a grade of C or better. Provides orientation to Kentucky Department of Mines and Minerals requirements for Limited Medical Radiography license. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

MOR Medical Office Radiology

MOR 100(6) Course ID:001773

Medical Office Limited Radiography

Provides knowledge and experience necessary to meet requirements for Limited Medical Radiography licensure. Consists of patient care and management, radiographic procedures, image production and evaluation, equipment operation and maintenance. Pre-requisite: AHS 109 and AHS 115 with a grade of C or better. Co-requisite: MOR 107. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture Attributes: Technical

MOR 107(3) Course ID:007371

Medical Office Radiography

Provides knowledge and experience necessary to meet requirements for Limited Medical Radiography licensure. Consists of patient care and management, radiographic procedures, image production and evaluation, equipment operation and maintenance. Pre-requisite: AHS 109 and AHS 115 with a grade of C or better. Co-requisite: MOR 115. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture Attributes: Technical

MOR 115(3) Course ID:007371

Medical Office Radiography

Provides knowledge and experience necessary to meet requirements for Limited Medical Radiography licensure. Consists of patient care and management, radiographic procedures, image production and evaluation, equipment operation and maintenance. Pre-requisite: AHS 109 and AHS 115 with a grade of C or better. Co-requisite: MOR 107. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture Attributes: Technical

MOR 299(1 - 4) Course ID:006790

Selected Topics in Mining Technology: (Topic)

Addresses various mining technology topics, issues and trends. Includes topics that may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of four credits in the 15 - 120.

Components: Lecture Attributes: Technical

MOR 333
MOR 115(3) Course ID:001775
Medical Office Limited Radiography Clinical
Apply the principles and procedures learned to afford the student the opportunity to observe, assist, and perform diagnostic radiographic examinations. Mandated by the State Radiation Control Board, the student will accrue a total of 360 contact hours and perform the minimum of (50) radiographic examinations in each of the following areas: Chest, Extremities, and Musculoskeletal. Pre-requisite: AHS 109 and AHS 115 with a grade of C or better. Co-requisite: MOR 100 Medical Office Limited Radiography. Clinical. 3.0 credits (180 contact hours).
Components: Clinical Attributes: Technical

MOR 117(6) Course ID:007111
Advanced Medical Office Radiography
Provides knowledge and lab experience necessary to meet requirements for Limited Medical Radiography licensure. Consists of patient care and management, radiographic procedures, image production and evaluation, equipment operation and maintenance. Pre-requisite: MOR 100 and MOR 115 with a grade of C or better. Co-requisite: MTR 119 Advanced Medical Office Radiology Clinical. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credit (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MRN 119(3) Course ID:007112
Advanced Medical Office Limited Radiography Clinical
Apply the principles and procedures learned in MOR 100 and MOR 115 to afford the student the opportunity to observe, assist, and perform diagnostic radiographic examinations. Mandated by the State Radiation Control Board, the student will accrue a total of 360 contact hours and perform the minimum of (50) radiographic examinations in each of the following areas: Chest, Extremities, and Musculoskeletal. Pre-requisite: MOR 100 and MOR 115 with a grade of C or better. Co-requisite: MTR 117 Advanced Medical Office Radiology Clinical. 3.0 credits (180 contact hours).
Components: Clinical Attributes: Technical

MRN 100(3) Course ID:006705
Intro to Marine Technology
Provides fundamental concepts of nautical science expected of personnel working aboard an inland towing vessel. Includes basic terminology, types of equipment encountered aboard the vessel, 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: Course Also Offered in Modules, 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 preventmarine accidents or casualty. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

MRN 103(3) Course ID:007412
Applied Marine Weather
Covers fundamental maritime weather concepts to plan safe and efficient voyages. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

MRN 104(3) Course ID:007413
Marine Crew Wellness
Examines how nutrition, exercise, and disease affect the crewmembers’ ability to maintain a U.S. Coast Guardlicense. 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 experience under the supervision of a qualified affiliate of the industry. Pre-requisite: 360 hours of 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 Attributes: Technical

MRN 202(3) Course ID:006711
Piloting and Navigation
Identifies the effect of inland waterway prevailing conditions on vessels; provides instruction on lock operations, 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: Course Also Offered in Modules, Technical

MRN 204(5) Course ID:006713
Marine Electrical Systems
Explores and applies the theory of electricity with an emphasis on power systems, circuits, safety procedures, and maintenance measures needed to maintain electrical systems aboard towing vessels. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

MRN 205(3) Course ID:006714
Marine Electrical Systems II
Explores the maintenance measures needed to maintain electrical systems aboard towing vessels on the inlandwaterway system. Pre-requisite: MRN 204. Lecture/Lab 3 credits (60 contact hours).
Components: Lecture Attributes: Technical

MRN 206(5) Course ID:006715
Marine Diesel
Introduces the operation and components of a marine diesel engine with emphasis on diesel engine theory, safety precautions, internal and external components, and contributing operation systems. Lecture/Lab: 5 credits (105 contact hours).
Components: Lecture Attributes: Technical

MRN 207(3) Course ID:006716
Marine Diesel II
Identifies the various systems involved in the operation of a marine diesel engine, including the application of the knowledge of diesel operation to maintenance and troubleshooting exercises. Pre-requisite: MRN 206. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture Attributes: Technical

MRN 208(3) Course ID:006717
Inland River Systems
Explores the U.S. inland waterway system and its tributaries and movement of cargos. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MRN 211(5) Course ID:006714
Marine Fluid Systems
Incorporates practical experience in fluid power theory, component identification and application, schematicreading, 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:006715
Marine Refrigeration Systems
Introduces the fundamentals of refrigeration, including use of tools, test equipment, materials, environmentalissues, and safety. Lecture/Lab: 4.0 credits (69 contact hours).
Components: Lecture Attributes: Technical

MRN 299(6) Course ID:006720
Marine Co-Op Experience II
Gives students further experience in a higher level position in the marine industry. Provides supervised-on-the-job work experience directly in line with the students’ educational objective. Pre-requisite: MRN 199. Co-requisite: Current employment with the company providing the co-op experience. Co-op: 6 credits (450 contact hours).
Components: Co-op Attributes: Technical

MRN 1001(1) Course ID:015787
Marine Terminology and Safety
Provides fundamental terminology and safety concepts expected of personnel working aboard an inland towing vessel. Pre-requisite: Instructor Consent. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MRN 1002(1) Course ID:015788
Seamanship, Rigging, and Tows
Provides basic seamanship expected of personnel working aboard an inland towing vessel. Pre-requisite: MRN 1001. Lecture: 1.0 credit (15 contact hours).
Components: Laboratory

MRN 1003(1) Course ID:015789
Marine Operations & Equipment
Introduces the responsibilities of the engineering department and systems on board an inland towing vessel. Pre-requisite: MRN 1002. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MRN 1011(1) Course ID:015790
Basic Towboat Design
Introduces components found on modern towboats with emphasis on towboat design and arrangement of equipment. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MRN 1012(1) Course ID:015791
Wheelhouse Equipment
Introduces basic arrangement of wheelhouse equipment and use. Pre-requisite: MRN 1011. Lecture: 1.0 credit (15 contact hours).
Components: Laboratory
MRN 1013(1) Course ID:015792
Mechanical Support Systems
Introduces mechanical support equipment aboard an inland towing vessel. Pre-requisite: MRN 1012. Lecture: 1.0 credit (15 contact hours). Components: Lecture

MRN 1021(1) Course ID:015793
Marine Safety
Introduces risk-based assessment and decision making factors for marine safety on an inland vessel. Lecture: 1.0 credit (15 contact hours). Components: Lecture

MRN 1022(2) Course ID:015794
Marine Risk-Based Analysis
Provides analysis for assessing and managing marine hazards to prevent marine accidents or casualties. Pre-requisite: MRN 1021. Lecture: 2.0 credits (30 contact hours). Components: Lecture

MRN 1031(1.5) Course ID:015795
Weather Forecasting
Introduces weather forecasting for safe and efficient voyage. Lecture: 1.5 credits (22.5 contact hours). Components: Lecture

MRN 1032(1.5) Course ID:015796
Maritime Weather
Introduces maritime weather as it relates to voyages. Pre-requisite: MRN 1031. Lecture: 1.5 credits (22.5 contact hours). Components: Lecture

MRN 1041(1.5) Course ID:015797
Crew Wellness
Examines how nutrition, exercise, and disease affect the crewmember’s ability to maintain a U.S. Coast Guard License. Lecture: 1.5 credits (22.5 contact hours). Components: Lecture

MRN 1042(1.5) Course ID:015798
Crew Lifestyle
Focuses on nutrition and exercise programs while working and the prevention of disease. Pre-requisite: MRN 1041. Lecture: 1.5 credits (22.5 contact hours). Components: Lecture

MRN 2002(1) Course ID:016380
Shipboard Deck Safety

MRN 2003(1) Course ID:016381
Shipboard Deck Rigging
Provides specifics on rigging procedures for towboat personnel. Pre-requisite: MRN 2002. Lecture: 1 credit (15 contact hours). Components: Lecture

MRN 2011(1.5) Course ID:016382
History of Navigation Rules
Provides an in-depth analysis of the history and effect developmental changes on navigational rules. Lecture: 1.5 credits (22.5 contact hours). Components: Lecture

MRN 2021(1) Course ID:016384
River Conditions
Identifies the effect of inland waterway prevailing conditions on vessels and hydrology. Lecture: 1 credit (15 contact hours). Components: Lecture

MRN 2023(1) Course ID:016386
Piloting
Provides instruction on locking procedures, radio telephone regulations and piloting skills. Pre-requisite: MRN 2022. Lecture: 1 credit (15 contact hours). Components: Lecture

MRN 2031(1) Course ID:015799
Environmental Regulations I
Provides analysis of environmental regulations governing the marine industry. Lecture: 1.0 credit (15 contact hours). Components: Lecture

MRN 2032(1) Course ID:015800
Environmental Regulations II
Provides analysis of Marine Pollution Convention and the National Pollution Discharge Elimination System. Pre-requisite: MRN 2031. Lecture: 1.0 credit (15 contact hours). Components: Lecture

MRN 2033(1) Course ID:015801
Environmental Regulations III
Explores the environmental statements of vessels on the inland waterway systems and the governing agencies which establish industry regulations. Pre-requisite: MRN 2031 and MRN 2032. Lecture: 1.0 credit (15 contact hours). Components: Lecture

MRN 2041(1.66) Intro to Marine Electrical
Explores the theory of electricity with an emphasis on power systems, circuits, and safety procedures needed to maintain electrical systems aboard towing vessels. Laboratory: 1.66 credits (35 contact hours). Components: Lecture

MRN 2042(1.67) Marine Electrical Application
Applies the theory of electricity with an emphasis on power systems, circuits, and maintenance measures needed to maintain electrical systems aboard towing vessels. Pre-requisite: MRN 2041. Laboratory: 1.67 credits (35 contact hours). Components: Lecture

MRN 2063(2) Course ID:016392
Marine Diesel Theory
Introduces the operation and components of a marine diesel engine with emphasis on diesel engine theory. Pre-requisite: MRN 2062. Laboratory/Lab: 2.0 credits (45 contact hours). Components: Lecture

MRN 2081(1) Course ID:016408
Intro to Inland River Systems
Explores the U.S. inland waterway system and its tributaries for the Lower Mississippi river region as they relate to the inland marine industry and the movement of cargos. Lecture: 1 credit (15 contact hours). Components: Lecture

MRN 2082(1) Course ID:016410
Upper Mississippi River System
Explores the U.S. inland waterway system and its tributaries for the upper Mississippi river region as they relate to the inland marine industry and the movement of cargos. Pre-requisite: MRN 2081. Lecture: 1 credit (15 contact hours). Components: Lecture

MRN 2083(1) Course ID:016411
Inland River Systems
Explores the U.S. inland waterway system and its tributaries for the Ohio River region as they relate to the inland marine industry and the movement of cargos. Pre-requisite: MRN 2082. Lecture: 1 credit (15 contact hours). Components: Lecture

MRN 2121(1.66) Intro to Marine Fluid Systems
Introduces practical experience in fluid power theory and schematic reading related to fluid power systems. Laboratory: 1.66 credits (35 contact hours). Components: Lecture

MRN 2123(1.67) Maintenance & Control Devices
Incorporates practical experience in fluid power theory and basic calculations related to marine fluid systems. Pre-requisite: MRN 2122. Lecture/Laboratory: 1.67 credits (35 contact hours). Components: Lecture

MRN 2141(1) Course ID:016415
Introduction to Marine HVAC
Introduces the fundamentals of refrigeration. Lecture: 1 credit (15 contact hours). Components: Clinical

MRN 2142(1) Course ID:016416
Marine HVAC Safety
Introduces refrigeration tools, test equipment, and safety. Pre-requisite: MRN 2141. Lecture: 1 credit (15 contact hours). Components: Lecture

MSG 100(4) Course ID:003986
Massage Therapy
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: Other, University Course (University of Kentucky)

MSG 110(4) Course ID:003987
Musculoskeletal Anatomy and Physiology I
Introduces theory and technique of Swedish massage, its effects on physical, emotional, and spiritual aspects of practice, and performance of a one-hour full body systemic Swedish massage. Pre-requisite: MSG 125. Lecture: 4 credits (60 contact hours). Components: Lecture

Attributes: Technical

MSG 117(4) Course ID:016686
Musculoskeletal Anatomy & Physiology I
Introduces the skeletal system and major joint articulations. Integrates the skeletal system with the musculoskeletal 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 119(4) Course ID:016687
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:016868
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:016869
Massage Techniques II
Extends students' knowledge of the skeletal system and major joint articulations. Introduces the musculoskeletal system of the human body, beginning with basic terminology and advancing through the fundamentals of musculoskeletal neuromuscular tissues. Enhances 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-Advanced
Provides extensive knowledge of the skeletal system and major joint articulations and an introduction to the musculoskeletal system of the human body from beginning terminology through the study of muscle tissue and neuromuscular fundamentals. Pre-requisite: MSG 100 and MSG 125. Lecture: 1.0 credit (15 contact); 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 in the knowledge and skills of advanced massage techniques and integrating them in an medical atmosphere. Co-requisite: MSG110. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 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 of rehabilitation of orthopedic conditions and injuries. Includes patient assessment, advanced orthopedics, and rehabilitative and preventative massage techniques. Pre-requisite: MSG205. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MSG 215(2) Course ID:003993
Massage Therapy Student Clinician
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 266(3) Course ID:016874
Massage Therapy Student Clinic
Enhances the student's experiences in the operation of a Massage Therapy business by their active participation in all aspects of a student-run business, including marketing, managing schedules and resources, and performing Massage Services. Pre-requisite: MSG 134. Lecture/Lab: 3.0 credits (135 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 Manufacturing Systems Technology

MST 150(9) Course ID:007268
Multi-Skilled Systems Technician
Introduces the systems approach to the operation of electrical components and the relationship of voltage, current, resistance, and power in industrial systems. Provides an overview of alternating and direct current fundamentals. Introduces the systems approach to the operation of mechanical components and the relationship of their application in industrial systems. Provides an overview of rotating machinery fundamentals. Introduces the systems approach to the operation of hydraulic / pneumatic components and the relationship of their application in industrial systems. Provides an overview of digital fundamentals. Lecture/Lab: 9.0 credits (160 contact hours).
Components: Lecture
Attributes: Technical

MST 200(3) Course ID:001778
Advanced Hydraulic Systems
The advanced hydraulic systems class will cover design, repair, and troubleshooting of hydraulic systems. Pre-requisite: FPX 100, FPX 101
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, FPX 101
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: FPX100, FPX 101
Components: Lecture
Attributes: Technical

MST 205(2) Course ID:001781
Advanced Pneumatic Systems Lab
Component repair and system troubleshooting will be covered in this lab. Pre-requisite: FPX 100, FPX 101
Components: Laboratory
Attributes: Technical

MST 206(3) Course ID:005259
Electrohydraulics Lab
Introduces electronic/electrical controls as it pertains to hydraulic valve control with the emphasis on automation, robotic and servo control. Laboratory: 2 credits (90 contact hours). Pre-requisite: (ENGT 111 and ENGT 113 and FPX 101) or Consent of Instructor. Co-requisite: MST 207.
Components: Laboratory
Attributes: Technical

MST 207(2) Course ID:005260
Electrohydraulics
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: (ENGT 111 and ENGT 113 and FPX 101) or Consent of Instructor. Co-requisite: MST 206.
Components: Laboratory
Attributes: Technical

MST Masonry

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 115(3) Course ID:001656
Intermediate Masonry
Builds on proficiency in competencies learned in MSY 105. Focuses on laying straight and plumb brick to the line with emphasis on 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 198(3) Course ID:001657
Instructor Consent Required
Practicum I
Provides supervised off-the-job work experience related to the student's 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 199(3) Course ID:001658
Instructor Consent Required
Cooperative Education I
Provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Co-op Education program receive compensation for their work. Pre-requisite: Consent of Instructor. Co-op: 3.0 credits (90 contact hours).
Components: Co-Op
Attributes: Technical

MSY 205(2) Course ID:001660
Advanced Masonry
Provides experience in laying quoin corners, bricking in around electrical and plumbing units, and laying doorand 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
**Course Descriptions**

**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 overhand, 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 235(3)**  
Course ID: 001663  
**Special Techniques in Brick Construction**  
Provides practice in constructing a variety of walls including arches. 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 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 anchor wall, and reinforcement frames, and setting steel lintels and bearing plates. Covers the installation of dovetail ties to concrete, setting preformed masonry lintels, and laying of paving brick in a herringbone pattern. 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

**MU 101(3)**  
Course ID: 000910  
**Folk and Traditional Music of the Western Continents**  
Designed for non-music majors. The primary purpose of the course is to survey the body of music called ethnic, folk, or "traditional," as it is found in Europe, most of Africa, and the Americas, from a geographic approach. Lecture: 3 hours.  
Components: Lecture  
Attributes: Cultural Studies, AH - Arts and Humanities

**MUC 175(1)**  
Course ID: 002238  
**Instructor Consent Required**  
Pre-requisite: Jazz Ensemble  
The study of jazz performance technique and jazz literature through the participation in a jazz ensemble. Can be repeated for a total of 4 credits.  
Components: Laboratory  
Attributes: Technical

**MUC 190(1)**  
Course ID: 005593  
**Instructor Consent Required**  
Pre-requisite: Marching Band  
Preparation for and performance at university athletic functions, primarily football games. May be repeated to a maximum of four credits.  
Components: Laboratory  
Attributes: Other, University Course (University of Kentucky)

**MUP 101(1 - 3)**  
Course ID: 002242  
**Instructor Consent Required**  
Piano  
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons.  
Components: Laboratory  
Attributes: Other

**MUP 102(1 - 3)**  
Course ID: 002243  
**Instructor Consent Required**  
Voice  
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons.  
Components: Laboratory  
Attributes: Other

**MUP 114(1 - 3)**  
Course ID: 006459  
**Instructor Consent Required**  
Trombone I  
Provides a systematic study of trombone performance.  
Pre-requisite: Consent of Instructor.  
Attributes: Laboratory

**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.  
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.  
Components: Laboratory  
Attributes: Other

**MUP 202(1 - 3)**  
Course ID: 002247  
**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.  
Components: Laboratory  
Attributes: Other

**MUP 214(1 - 3)**  
Course ID: 006460  
**Instructor Consent Required**  
Trombone II  
Continues the systematic study of trombone performance through an individualized course of study. May be repeated for a total of 3 credits.  
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.  
Components: Laboratory  
Attributes: Other
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-musicmajor with no prior knowledge of music and is not intended to fulfill a program course requirement for musicmajors.
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: 1 credit (15 contact hours).
Components: Laboratory
Attributes: AH - Arts and Humanities, University Course
(Morehead State University)

MUS 113(1) Course ID:006900
Class Instruction in Guitar I
Introduces the fundamentals of guitar playing to beginners. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other, Pilot Course

MUS 114(1) Course ID:006899
Class Instruction in Guitar II
Develops the fundamentals of guitar playing on an intermediate level. Pre-requisite: Guitar I or consent of instructor. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other, Pilot Course

MUS 120(3) Course ID:004609
Music Technology I
Introduces the use of technology as a tool for music creativity and productivity. Includes knowledge of how to create various styles of contemporary music utilizing loop and sampling based technology, creation of wavfiles, 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 121(3) Course ID:004610
Music Technology II
Continues the process of integrating computer based technology into the creation and design of music through artistic and commercial applications. Covers intermediate skills in music notation, MIDI (Musical Instrument Digital Interface) sequencing, and electronic keyboarding. Includes the exploration of many ways to incorporate these skills into computer/MIDI applications. Pre-requisite: MUS 120 or consent of the 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: MUS 150. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other

MUS 152(1) Course ID:002233
Class Instruction in Piano III
Develops the fundamentals of piano playing on an early intermediate level, with an emphasis on expanded repertoire. 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 upper intermediate repertoire. Pre-requisite: MUS 152. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other

MUS 155(1) Course ID:002235
Instructor Consent Required
Voice Class for Non-Music Majors
Includes applied voice group instruction for non-music majors with emphasis on basic breathing and vocal technique, elements of music notation, and diction. May be repeated for a maximum of 2 credits. 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, and rhythm organization. Lecture: 3.0 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. Lecture: 3.0 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.
Components: Laboratory
Attributes: Other

MUS 192(1) Course ID:002237
Instructor Consent Required
University Chorus
Includes choral literature and performance requiring membership at up to five hours of rehearsals per week. May be repeated up to 3 times for a total of 4 credits. May require audition and/or consent of instructor. 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 trends and movements.
Components: Lecture
Attributes: AH - Arts and Humanities

MUS 207(3) Course ID:004774
African American Music History
A history of African American music from Pre-colonial West African diasporas through American colonial times to the present. Requires listening to recordings, reading the primary text and suggested readings in books and periodicals. Important names, places, events, and styles in music, as well as important historical and sociological trends will be presented within the context of the African American experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: 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 the musics of diverse cultures. Includes recorded examples of music-cultures in performances, reading and writing assignments, and attendance and reporting at live music events. Includes informational presentations by students, group discussion, and small group projects. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

MUS 222(3) Course ID:002253
History and Sociology of Rock Music
Provides a listening survey course, with a chronological approach, covering the years 1950- present. Emphasizes both the music and the sociological climate reflected in and advocated by the music. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

MUS 223(3) Course ID:006581
Music for Elementary Teachers
Covers music rudiments of music theory and methods for teaching music to elementary school children. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

MUS 260(2) Course ID:000692
Teaching Music in the Elementary Grades I
Develops musicianship, skills, and techniques needed to direct musical activities effectively in the elementary classroom. Introduces music fundamentals and teaching materials through active participation in muscial activities, focusing on music education appropriate for elementary grades. Should be taken by classroom teachers and non-music majors and followed by MUS 261. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture
Attributes: Other

MUS 261(2) Course ID:000699
Teaching Music in the Elementary Grades II
Builds on the musicianship skills and techniques learned in MUS 260. Develops the process of selecting and teaching music materials.
Components: Lecture

Components: Lecture/Lab: 2.0 credits (45 contact hours).

Attributes: Other

MUS 299 (1-3) Course ID:006343
Special Topics in Music
Examines selected topics in music and/or their impact on culture. May include but is not limited to Hindustani 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: Other

MUS 1001(1) Course ID:015802
Elements through Renaissance
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 and Renaissance. Designed for themusic-major major with no prior knowledge of music and is not intended to fulfill a program course requirement for music majors.

Components: Lecture

MUS 1002(1) Course ID:015803
Baroque & Classical Music
Emphasizes the development of an awareness and understanding of musical styles from the Baroque and Classical Periods. Pre-requisite: MUS 1001 Elements Through Renaissance. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MUS 1003(1) Course ID:015804
Romantic 21st Century Music
Emphasizes the development of an awareness and understanding of musical styles from the Romantic Period through 21st Century music. Pre-requisite: MUS 1002 Baroque & Classical Music. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MUSE Music (Education)

MUSE 222(3) Course ID:006665
Music for the Elementary Teachers
Music rudiments of music theory and methods for teaching music to elementary school children.

Components: Lecture

Attributes: University Course (Morehead State University)

MVC Metroversity

MVC 299 (1-8) Course ID:005317
Metroversity Topics
Proposed: Includes Special Topics for the Metroversity Consortium (Jefferson Community & Technical College, Bellarmine University, Indiana University Southeast, Ivy Tech Community College, Louisville Presbyterian Theological Seminary, Southern Baptist Theological Seminary, Spalding University, and University of Louisville). Specific course descriptions, outlines, and competencies will be on file at the credit-bearing institution. GPA 2.0 and completion of 12 credit hours in KCTCS required. Lecture/Lab: 1-8 credit hours.

Components: Laboratory, Lecture

Attributes: Other

NAA Nursing Assistant

NAA 100(3) Course ID:004611
Nursing Assistant Skills I
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long-term care setting. Focus is communication, infection control, safety, resident/patient rights, and basic nursing skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450.

Components: Lecture

Course Descriptions

Attributes: Course Also Offered in Modules, Technical

NAA 102(3) Course ID:006887
Basic Health Unit Coordinating
Presents the duties and responsibilities of the health unit coordinator with an emphasis on communications, confidentiality, legal and ethical issues, and order entry. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Pilot Course, Technical

NAA 115(3) Course ID:004612
Nursing Assistant II
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings. Builds upon MNA 100/NA 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 1001(2) Course ID:006250
Long Term Care Nurse Aide
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long-term care setting. Focuses on communication, infection control, safety, resident/patient rights, and basic nursingskills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

NAA 1002(0.56) Course ID:006251
Nurse Aide Skills Laboratory
Includes the laboratory component for application of skills and concepts taught in the nurse aide program. Pre-requisite: NAA 1001 Lab: .56 credit (25.0 contact hours).

Components: Laboratory

NAA 1003(0.44) Course ID:006252
Nurse Aide Clinical Rotation
Includes the required supervised practical training component. Provides a working knowledge of the physiological, psychological, and sociological impact of institutionalization on the nursing facility/resident. Pre-requisite: NAA 1002. Clinical: 0.44 credit (20 contact hours).

Components: Clinical

NAA 1021(1) Course ID:016419
Health Unit Coordinating
Presents communication skills and safety duties and responsibilities of the health unit coordinator. Lecture: 1 credit (15 contact hours).

Components: Lecture

NAA 1022(1) Course ID:016420
Health Unit Management
Presents health unit coordinator duties and responsibilities regarding confidentiality and legal and ethical issues. Pre-requisite: NAA 1021 Lecture: 1 credit (15 contact hours).

Components: Lecture
measurements, gas flow rate measurements and heating values, venting and ventilation requirements for proper burning of natural gas, and comparing fuel costs.

**Components:** Lecture

**NGT 1008(0.5)** Course ID:006451

**Records & Compliance Reports**
Focusses on U.S. Department of Transportation reporting requirements, reading maps of natural gas systems, and preparing field sketches. Lecture: 0.5 credits (7.5 contact hours).

**Components:** Lecture

**NGT 1101(1.25)** Course ID:006452

**Controlling/Preventing Fires**
Introduces factors related to the fire extinguishing process, ways to prevent gas fires, and ways to extinguish natural gas fires. Lecture: 0.25 credits (3.75 contact hours); Lab: 1.0 credits (30 Contact hours).

**Components:** Laboratory, Lecture

**NGT 1102(0.75)** Course ID:006461

**Safe Working Environment**
Emphasizes work safely practices, proper use of equipment, hazards of escaping gas, and drug testing and rehabilitation programs. Lecture: 0.25 credits (3.75 contact hours), Laboratory: 0.5 credits (15 contact hours).

**Components:** Laboratory, Lecture

**NGT 1103(0.5)** Course ID:006462

**Preventing Accidental Ignition**
Identifies conditions, causes, and hazards related to gas leakage; emphasizes safety practices and procedures to prevent accidental ignition of natural gas. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).

**Components:** Laboratory, Lecture

**NGT 1104(0.5 - 500)** Course ID:006463

**Traffic Control Guidelines**
Present the basic standard for traffic control as described in the annual on Uniform Traffic Control Devices, Part VI According to the U.S. Department of Transportation.

**Components:** Laboratory, Lecture

**NGT 1401(0.5)** Course ID:006465

**Excavating**
Focuses on the Occupational Safety and Health Administration (OSHA) requirements for both excavation, protection systems, and tables and specifications for designing protective systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).

**Components:** Laboratory, Lecture

**NGT 1402(1.25)** Course ID:006466

**Operating Equipment Safely**
Presents techniques of tractor/loader/backhoe operation while emphasizing safety precautions, maintenance and inspection, and proper control. Lecture: 0.25 credits (3.75 contact hours), Lab: 1 credit hour (30 contact hours).

**Components:** Laboratory, Lecture

**NGT 1403(0.75)** Course ID:006467

**Safety in Confined Spaces**
Introduces confined spaces with emphasis on identifying hazards, monitoring of the atmosphere, entry procedures, and controlling hazardous energy. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (15 contact hours).

**Components:** Laboratory, Lecture

**NGT 1404(0.5)** Course ID:006468

**Communicating Potential Hazard**
Examines health-related chemical and explosive hazards while emphasizing identification of hazard information from labels and material safety data sheets and methods used to work safely with toxic chemicals and hazardous materials. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).

**Components:** Laboratory, Lecture

**NGT 1501(0.5)** Course ID:006453

**Gas-in-Air Mixture**
Focuses on detecting the presence of and measuring the percent of gas in a gas-in-air mixture. Lecture: 0.5 credits (7.5 contact hours).

**Components:** Lecture

**NGT 1502(0.5)** Course ID:006454

**Gas Leaks/Odors**
Presents basic facts about natural gas and natural gas leaks with emphasis on responding to gas leak and odors. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).

**Components:** Laboratory, Lecture

**NGT 1503(0.5)** Course ID:006455

**Underground Facilities**
Presents techniques and procedures basic to locating and marking underground pipeline facilities. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).

**Components:** Laboratory, Lecture

**NGT 1504(0.5)** Course ID:006456

**Underground Leaks**
Presents the theory and practice for investigating and pinpointing underground natural gas leaks. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).

**Components:** Laboratory, Lecture

**NGT 1505(0.75)** Course ID:006464

**Patrol/Leakage Surveys**
Presents factors basic to patrol of pipeline facilities to include the practice of patrol and leakage surveys. Lecture: 0.5 credits (7.5 contact hours); Lab: 0.25 credits (7.5 contact hours).

**Components:** Laboratory, Lecture

**NGT 1506(0.25)** Course ID:006618

**Detecting Carbon Monoxide**
Presents the characteristics of carbon monoxide and the guidelines for investigation of carbon monoxide. Lecture: 0.25 credits (3.75 contact hours).

**Components:** Lecture

**NGT 1601(0.75)** Course ID:006469

**Establishing a Gas Service**
Presents methods used when establishing a gas service with emphasis piping from the main to customer’s piping, piping inside buildings, and gas-operated equipment in service. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).

**Components:** Laboratory, Lecture

**NGT 1602(0.75)** Course ID:006470

**Odorant Levels**
Presents federal and Kentucky standards for proper odorant levels with emphasis on monitoring odorant levels. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).

**Components:** Laboratory, Lecture

**NGT 1603(0.75)** Course ID:006471

**Installing Domestic Service**
Presents US Department of Transportation and industry-recognized procedures for installing domestic gasservice. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).

**Components:** Laboratory, Lecture

**NGT 1604(0.75)** Course ID:006472

**Purging Techniques**
Presents the theory and techniques common to purging natural gas lines, including safe practices and isolation of equipment during purging. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).

**Components:** Laboratory, Lecture

**NGT 1701(0.5)** Course ID:006473

**Gas-Operated Appliances**
Presents procedures for checking natural gas appliance systems to ensure proper installation and safe operation. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).

**Components:** Laboratory, Lecture

**NGT 1702(0.5)** Course ID:006474

**Servicing Gas Equipment**
Presents factors related to the ventilation process, standards to ensure proper combustion and ventilation for gas-operated equipment, and ventilation inspection of gas-operated equipment. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).

**Components:** Laboratory, Lecture

**NGT 1703(0.75)** Course ID:006475

**Venting Gas Equipment**
Presents venting requirements for Categories I-IV gas-operated appliances; identifies features and benefits of high efficiency equipment with practice in sizing of vents and inspecting venting systems. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).

**Components:** Laboratory, Lecture

**NGT 1704(1.25)** Course ID:006476

**Electrical Concepts**
Presents the basics for troubleshooting electrical control circuits in gas-operated appliances with emphasis on reading electrical circuit diagrams and their physical arrangement in the appliance. Lecture: 0.25 credits (3.75 contact hours); Lab: 1 credit (30 contact hours).

**Components:** Laboratory, Lecture

**NGT 1801(0.5)** Course ID:006477

**Installing Mains & Lines**
Presents the basics for installing gas mains and service lines with emphasis on safety, standards, and line-marking. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours)

**Components:** Laboratory, Lecture

**NGT 1802(0.5)** Course ID:006478

**Pipeline Installation**
Presents the preparation of the pipeline right-of-way and the completion of the construction operations. 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 through 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 fusion polyethylene pipe and the specification and conditions required to produce acceptable joint. Lecture: 0.25 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 1808(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 pipe 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
Course Descriptions

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
Pipeline Piggng
Presents techniques basic to pigging pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2003(0.75) Course ID:006490
Purging Techniques
Presents factors affecting the mechanical nature of displacing one gas with another gas by purging. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2004(0.75) Course ID:006491
Tie-In/Bypass Operations
Presents procedures for performing tie-in/bypass operations. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2051(0.5) Course ID:006492
Corrosion Control
Presents the characteristics of corrosion, conditions causing corrosion in buried metal piping, and processes and procedures basic to corrosion control. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2052(0.5) Course ID:006493
Installing Cathodic Systems
Presents procedures for installing cathodic protection systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2053(0.5) Course ID:006494
Testing Corrosion Systems
Presents methods for monitoring and testing corrosion control systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2054(0.5) Course ID:006495
Monitoring Corrosion Control
Presents information and techniques for monitoring corrosion control methods on buried metal pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2101(1) Course ID:006496
Principles of Electricity
Presents the basics of both D.C. and A.C. electrical theory with an emphasis on current flow designs. Lecture: 1 credit (15 contact hours).
Components: Lecture

NGT 2102(1) Course ID:006497
Rectifier Components
Presents the theory and practice of identifying and testing typical rectifier components with emphasis on the identification of rectifying circuits, rectifier selection methods, and specialized types of rectifiers. Lecture: 0.50 credits (7.5 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2103(1) Course ID:006498
Rectifiers
Presents information and techniques for putting cathodic protection rectifier systems into service. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2201(0.5) Course ID:006499
Gas Measurement
Presents concepts and principles basic to gas measurement; demonstrates the effects of gas pressure and temperature on gas measurement using mathematical calculations; reviews the operating principles of diaphragm, rotary and turbine meters used to measure gas. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2202(1) Course ID:006500
Maintaining Line Valves
Presents the basic operating principles and maintenance schedules of gas flow control valves; demonstrates proper use and care of high-pressure gas valves. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2203(0.5) Course ID:006501
Pipeline Heaters
Presents the operation procedures and maintenance of calytic and water bath indirect pipeline heaters. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2204(0.5) Course ID:006502
Proper Odorant Levels
Presents the industry standards and devices used to introduce odorants into a natural gas system; emphasizes testing for odorant levels and the proper handling of odorants. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2205(0.5) Course ID:006503
Dew Point of a Gas
Covers theory and practice used to test the dew point of a gas; explains methods used to test moisture in gas. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2301(0.5) Course ID:006504
Orifice Meters
Presents operating principles of orifice meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2302(0.5) Course ID:006505
Turbine Meters
Presents operating principles of turbine type meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2303(0.5) Course ID:006506
Diaphragm Meters
Presents operating principles of diaphragm-type meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.5 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 maintaining 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 record; covers equipment and procedures and flowcharts. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2401(0.5) Course ID:006510
Self-Operating Regulators
Presents information and procedures basic to performing maintenance operations on self-operating pressure regulators. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2402(0.5) Course ID:006511
Pilot Loaded Regulators
Presents concepts and principles basic to the operation and selection of pressure regulators and the control of gas pressure. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2403(0.5) Course ID:006512
Test Pressure Limits
Presents the concepts and principles basic to test relief valves and pressure limiting and regulating devices. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2404(0.5) Course ID:006513
Differential Pressure Recorder
Presents information and procedures for maintaining and calibrating differential pressure recorders. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2405(0.5) Course ID:006514
Mercury Instruments
Presents the fundamental operating and maintenance procedures for mercury instruments, gauges and indexes. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NIP 101(3) Course ID:006847
Introduction of Pharmacology
Introduces dosage calculations and medication administration of commonly used medications. Includes an overview of common drug classifications, drugs and their effects. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Incorporates the fundamental core values: caring, diversity, ethics, excellence, holism, integrity, and patient-centeredness. Incorporates the integrating concepts.

NIP Nursing Integrated Program

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context and environment, knowledge and science, quality and safety, and relationship-centered care. Pre-requisite: Admission to the Integrated Nursing Program; successful completion of a Medicaid Nurse Aide equivalent course and proof of active status on the Kentucky Nurse Aide Registry. Completion, with a grade of "C" or better, of BIP105, PSY110, COM161, ENG101, and CIT105 or OST 105 equirequivalent. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite or Co-requisite: AHS 100, NIP 116.

Components: Lecture
Attributes: Technical

NIP 103(2) Course ID:016949 Introduction to Pharmacology Introduces dosage calculations and medication administration of common 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 active status on the Kentucky Nurse Aide Registry. Completion, with a grade of "C" or better, of BIP105, PSY110, ENG 101. 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: 2.0 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. Explores current and historical issues impacting nursing. Introduces framework for organizing the assessment and planning of clients' health in the provision of safe, ethical, high-quality health care delivery. Examines client needs, health promotion, basic human needs, prevention of complications as related to mechanisms of self-defense. Emphasizes the use of the Neuman Systems Model to provide care for patients. Pre-requisite: NIP 211 or NIP 211L. Lecture: 4.0 credits (180 contact hours)

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NIP 120(3) Course ID:005381 Maternal Child Nursing Care Focuses on health promotion in the context of the family experiencing reproductive issues including pregnancy, labor and delivery, post partum, and the newborn. Focuses on management of care for patients with perinatal complications and high-risk newborns. Integrates concepts of the NLN Competencies Model and the Neuman's Systems Model and the Maslow Hierarchy, including pharmacologic and therapeutic interventions throughout the course. Pre-requisite: Completion with a grade of "C" or better in NIP 116, NIP 102 and AHS 100. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite: Or Co-requisite: NIP 128. Lecture: 2.0 credits (30 contact hours). Clinical: 1.0 credit (45 contact hours)

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NIP 128(10) Course ID:006642 Medical Surgical Alteration Focuses on care of clients with stressors to normal lines of defense in hematology, immune, integumentary, fluid and electrolyte/acid/base imbalance, respiratory, musculoskeletal, cardiovascular, gastrointestinal, hepatobiliary, renal/urinary, endocrine, reproductive, and neurological/sensory. Integrates the concepts of nursing practice: context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. Uses the Neuman Systems Model to provide care for clients by incorporating the core values of caring, diversity, excellence, integrity, ethics, holism, and patient-centeredness. Through clinical experience and theory application, examines the client's needs, health promotion, various treatment modalities, and nursing interventions. Pre-requisite: Completion with a grade of "C" or better in NIP 102, NIP 116. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course.

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NIP 129(11) Course ID:016850 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. Includes nursing care during pregnancy and the postpartum period, as well as nursing care of the newborn and the childbearing family. Introduces 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 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 and 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 NIP 102, NIP 128. 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: CIT 105 or OST 105. Lecture: 2.0 credits (30 contact hours). Clinical: 4.0 credits (180 contact hours)

Components: Lecture
Attributes: Technical

NIP 211(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. Uses the nursing process in care management of clients with complex health care needs and disorders of self-defense/ protection: skin, hair, nails, cancer, hemostatic, hematologic system, peripheral vascular system, cardiovascular system, respiratory system, endocrine system, gastrointestinal system, reproductive system, renal/urinary system, nervous system, sensory system, musculoskeletal system, and lymphatic system across the lifespan. Pre-requisite: Completion with a grade of "C" or better in NIP 129 or successful completion of a Practical Nursing program curriculum and proof of active status on the Kentucky Nurse Aide Registry. Students must have Basic Life Support certification, current liability insurance coverage

Components: Clinical, Lecture Attributes: Technical

NIP 215(7) Course ID:005438 Leadership and Specialty Practice Prepares the student in the Associate Degree Nursing Program to assume the role of a graduate nurse in the synthesis and application of the nursing process for the holistic care of the patient with complex, multidimensional stressors. Emphasizes leadership and management of care, continued skill development and professionalism: to include ethics, integrity, excellence diversity and caring. Introduces the nursing student to the dynamics and issues of teams, organizations and the 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 provides practice for predominately distributive health care settings. Emphasizes the utilization of the nursing process, prevention of illness, maintenance of health, and the Components: Clinical, Laboratory, Lecture Attributes: 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 the student 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 a grade of "C" or better in NIP 211 and MAT 150. Students must have Basic Life Support 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

NMI Nuclear Medicine and Molecular Imaging Technology

NMI 140(2) Course ID:005714 Clinical Procedures I Covars radionuclide skeletal system imaging techniques to demonstrate vascular, soft tissue and skeletal distribution. Includes radionuclide cardiovascular system imaging procedures for myocardial perfusion and viability, functional evaluation (equilibrium and ventriculography) and deep vein thrombosis detection. Prerequisite: Admission to the NMMI program. Computer Literacy; [(MAT 150) and (BIO 137 and BIO 139)] or consent of instructor. Co-requisite: CHE 140 and (PHY 171 or PHY 172) and NMI 141 and NMI 142 and NMI 150. Lecture: 2.0 credits (30 contact hours)

Components: Lecture Attributes: Technical

NMI 141(2) Course ID:005715 Physics and Instrumentation I Introduces concepts and physical principles that govern radioactivity and the interactions of radiation with matter, the principles, operation and quality control for non-imaging, gas-filled detectors and non-imaging scintillation detectors; also the principles and applications of statistics as they relate to radiodetection and counting. Prerequisite: Admission to the NMMI program. Computer Literacy; [(MAT 150) and (BIO 137 and BIO 139)] or consent of instructor. Co-requisite: NMI 140 and NMI 142 and NMI 150. Pre-requisite or Co-requisite: CHE 140 and either PHY 171 or PHY 172. Laboratory, Lecture: 2.0 credits (45 contact hours)

Components: Laboratory, Lecture Attributes: Technical

NMI 142(1) Course ID:005716 Radiation Biology and Protection Covers interactions of ionizing radiation with human tissues, its potential effects, dosimetry and isrelation

NMI 142(1) Course ID:005716 Radiation Biology and Protection Covers interactions of ionizing radiation with human tissues, its potential effects, dosimetry and isrelation
Covers procurement, preparation, quality control, dispensing, patient dosage calculation, identification, documentation, administration, disposal, storage, and safe handling of radioactive materials used by the nuclear medicine technologist. Includes commonly used pharmaceuticals in Nuclear Medicine, including dosages side effects, contraindications, adverse reactions and antagonists. (CT contrast media administration.). Pre-requisite: (NMI 160 and NMI 161 and NMI 170) with a grade of C or greater. Co-requisite: NMI 220 or consent of instructor. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

NMI 150(2) Course ID:005717

Clinical I
Introduces concepts of clinical practice with application of knowledge and principles from previous general education course work and/or concurrent NMI courses. Will include actual clinical experience in an affiliated nuclear medicine clinical setting. Pre-requisite: Admission to the NMNN program. Computer Literacy: ([MAT 150] and (BIO 137 and BIO 139)) or consent of instructor. Co-requisite: NMI 140 and NMI 141 and NMI 142 or consent of instructor. Pre-requisite or Co-requisite:CHE 140 and either PHY 171 or PHY 172. Lecture:1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

NMI 150(2) Course ID:005718

Clinical Procedures II
Covers imaging of organs and systems in relation to the abdomen and gastrointestinal tract in addition to imaging procedures and quantitative evaluation of the pulmonary system. Pre-requisite: ([NMI 140 and NMI 141and NMI 142 and NMI 150) with a grade of C or greater] or consent of instructor. Co-requisite: NMI 161 and NMI 170. Pre-requisite or Co-requisite: CHE 150. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

NMI 150(2) Course ID:005719

Physics and Instrumentation II
Includes use and quality control of the various types of systems used for scintillation imaging and computedtomography in hybrid imaging. Covers the configuration, function, and application of computers in nuclear medicine. Pre-requisite: ([NMI 140 and NMI 141 and NMI 142 and NMI 150] with a grade of C or greater) or consent of instructor. Co-requisite: NMI 161 and NMI 170. Pre-requisite or Co-requisite: CHE 150. Lecture: 2.0 credits (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

NMI 170(2) Course ID:005720

Clinical II
Continuation of NMI 150 Clinic I. Covers clinical practice with application knowledge and principles from previous general education course work and previous/current concurrent NMI courses. Will include actual clinical experience in an approved nuclear medicine clinical setting. Pre-requisite: (NMI 140 and NMI 141 and NMI 142 and NMI 150) with a grade of C or greater] or consent of instructor. Co-requisite: NMI 160 and NMI 161. Pre-requisite or Co-requisite: CHE 150. Clinical: 2.0 credits (180 contact hours).

Components: Clinical
Attributes: Technical

NMI 220(2) Course ID:005721

Clinical Procedures III
Covers procedures of the urinary system, central nervous system and endocrine systems including inappropriate interventional and challenging procedures. Pre-requisite: ([NMI 220 and NMI 230] with a grade of Cor greater] or consent of instructor. Co-requisite: NMI 260 or consent of instructor. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

NMI 220(4) Course ID:005723

Clinical Procedures IV
Covers oncologic imaging procedures, inflammatory infectious process imaging procedures, radionuclide therapy procedures, non-imaging procedures related to hematologic and vitamin B-12 absorption / excretion and pediatrics/imagining. Pre-requisite: ([NMI 240 and NMI 260] with a grade of C or greater] or consent of instructor. Co-requisite: NMI 270 or consent of instructor. Lecture: 4.0 (60 contact hours).

Components: Lecture
Attributes: Technical

NMI 250(4) Course ID:005724

Clinical IV
Continuation of NMI 220 Clinic III; Covers application of knowledge and principles from previous general education course work and/or previous/current concurrent NMI courses. Will include actual clinical experience in an affiliated nuclear medicine clinical setting. Pre-requisite: ([NMI 220 and NMI 230] with a grade of C or greater] or consent of instructor. Co-requisite: NMI 240 or consent of instructor. Clinical: 4.0 credits (360 contact hours).

Components: Clinical
Attributes: Technical

NMI 260(4) Course ID:005725

Clinical Procedures V
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 CPRfor Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR Active status on the Medicaid Nurse Aide Registry] AND Computer Literacy as defined by KCTCS. Pre-requisite or Co-requisite: ([BIO 135 or BIO 139] and (AHS 100 or CLA 131 or AHS 120 or OST 103) and (AHS 100 or PSY 223) with a minimum grade of C in each course) OR Consent of PN Coordinator. Lecture:3.0 credits (45 contact hours); Lab:Clinical:3.0 credits (45:1 ratio/135 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Technical

NPN 106(6) Course ID:005627

Fundamentals of Nursing Care
Provides a historical overview of health care system and roles and responsibilities of members of the healthcare 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. 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 Computer Literacy as defined by KCTCS. Pre-requisite or Co-requisite: ([BIO 135 or BIO 139] and (AHS 100 or CLA 131) with a minimum grade of C in each course) 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 healthcare 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. 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 Computer Literacy as defined by KCTCS. Pre-requisite or Co-requisite: ([BIO 135 or BIO 139] and (AHS 100 or CLA 131 or AHS 120 or OST 103) and (AHS 100 or PSY 223) with a minimum grade of C in each course) OR Consent of PN Coordinator. Lecture: 3.0 credits (35 contact hour).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 105(6) Course ID:004022

Developing of Care Giver Role
Introduces nursing and the nursing process as related to client activities of daily living across the lifespan. Provides an opportunity to develop and practice psychomotor skills related to health assessment, promotion, maintenance, and illness prevention. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA100 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] and (AHS 100 or PSY 223) with a minimum grade of C in each course) OR Consent of PN Coordinator. Lecture: 3.0 credits (45 contact hours); Lab:Clinical:3.0 credits (45:1 ratio/135 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Technical

NPN 106(6) Course ID:005627

Fundamentals of Nursing Care
Provides a historical overview of health care system and roles and responsibilities of members of the healthcare team. Emphasizes practical nursing and the nursing process in the context of Functional Health Patterns asrelated 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 Computer Literacy as defined by KCTCS. [ENG 101 and MT110 and (AHS 115 or CLA 131) with a minimum grade of C]. Pre-requisite or Co-requisite: ([BIO 135 or BIO 139] and (AHS 100 or PSY 223), Minimum C grade. Lecture: 4 credits (60 contact hours); Lab: 2 credits (60 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 108(3) Course ID:005628

Pharmacology in Nursing
Introduces dosage calculations and medication administration of commonly used medications. Includes an overview of common drugs, drug classifications, and effects administered in the following modes: oral,sublingual, rectal, topical, intradermal, intramuscular, subcutaneous, intravenous, and epidural administrations. Covers basic knowledge of pharmacology and roles of nursing and medical providers. Emphasizes nursing responsibility, accountability, and application of nursing process drug therapy.
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NPN 1063(1.5) Course ID: 005701
Health Assessment
Presents health assessment and a lab component of various skills that must be successfully completed prior to the student's caring for patients in the clinical arena (verbal and simulated patients). Pre-requisite: NPN 1062 Minimum C grade. Pre-requisite or Co-requisite: BIO 139 and PSY 223. Minimum C grade. Lecture: 1 credit (15 contact hours). Lab: 0.25 credits (11.25 contact hours). Clinical: 0.25 credits (11.25 contact hours).
Components: Clinical, Laboratory, Lecture

NPN 1064(2) Course ID: 005702
Care of the Client Undergoing Surgical Intervention
Presents the patient undergoing surgical intervention and the related lab and clinical Pre-requisites. Pre-requisite: NPN 1063, Minimum C grade. Pre-requisite or Co-requisite: BIO 139 and PSY 223. Minimum C grade. Lecture: 1.25 credits (18.75 contact hours). Lab: 0.25 credits (11.25 contact hours). Clinical: 0.5 credits (22.5 contact hours).
Components: Clinical, Laboratory, Lecture

NPN 1081(0.5) Course ID: 005703
Overview of Pharmacology
Presents an overview of pharmacology and the legal and ethical implications for nurses. Pre-requisite: Admission to program. Current CPR card for Health Care Providers or Red Cross Professional Rescuer; current certification must be maintained throughout the program. Successful completion of a Medicaid Nurse Aide equivalent course within the past three (3) years or proof of active status on the State Nurse Aide Registry (SRNA). (MT 110 or higher math) and (AHS 115 or CLA 131) and ENG 101. Minimum C grade. Co-requisite or Pre-requisite: BIO 139 and PSY 223. Must achieve a C or greater in each course. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NPN 1082(1.15) Course ID: 005704
Medication Administration
Presents a discussion of various drug categories and the procedures for correct administration via various routes. Pre-requisite: NPN 1081, Minimum C grade Co-requisite or Pre-requisite: BIO 139 and PSY 223. Minimum C grade. Lecture: 0.75 credits (11.25 contact hours). Lab: 0.4 credits (18 contact hours).
Components: Laboratory, Lecture

NPN 1083(1.35) Course ID: 005733
Parenteral Medication Administration
Presents the concepts and responsibilities of the nurse during intravenous therapy. Pre-requisite: NPN 1082, Minimum C grade. Pre-requisite or Co-requisite: BIO 139 and PSY 223. Minimum C grade. Laboratory: 1.35 credits (30.25 contact hours)
Components: Laboratory, Lecture

NPN 1111(1) Course ID: 006276
Intro to Pharmacology
Provides an overview of pharmacological principles, introducing drug calculations, drug classifications and common drugs, as well as effects of medications. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Pre-requisite: NPN 1011 Completion with a C or better. Lecture: 1 credit (15 contact hours).
Components: Lecture

NPN 1112(1) Course ID: 006277
Medication Administration
Focuses on the role of the practical nurse in regard to medication administration utilizing oral, enteral, sublingual, buccal, rectal, topical, transdermal, intradermal, intramuscular, and subcutaneous routes. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Pre-requisite: NPN 1111. Completion with a C or better. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

NPN 1113(1) Course ID: 006278
Intravenous Therapy
Focuses on the role of the practical nurse in regard to medication administration utilizing the oral, enteral, sublingual, buccal, rectal, topical, transdermal, intradermal, intramuscular and subcutaneous routes. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Pre-requisite: NPN 1112 Completion with a C or better. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

NPN 1251(0.75) Course ID: 005705
Intro to Psychiatric-Mental Health Nursing
Introduces the patient to psychiatric-mental health nursing and the role of the nurse in multidisciplinary care. Pre-requisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) with a minimum grade of "C" in each course) or Consent of PN Coordinator. Pre-requisite or Co-requisite: Pathway 2: ((NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of "C" in each course) or Consent of PN Coordinator. Pathway 3: (NPN 106 and NPN 108 and BIO 139 and PSY 223) with a minimum grade of "C" in each course) or Consent of PN Coordinator. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.25 credits (11.25 contact hours).
Components: Clinical, Lecture

NPN 1252(0.75) Course ID: 005706
Components of the Nurse-Client Relationship
Presents the aspects of therapeutic communication and the nurse's role in multidisciplinary care. Pre-requisite: ALL Pathways: NPN 1251. Minimum "C" grade. Co-requisite or Pre-requisite. Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of "C" in each course. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.25 credits (11.25 contact hours).
Components: Clinical, Lecture

NPN 1253(0.75) Course ID: 005707
Clients with Psychiatric Disorders
Presents the disorders specific to adult issues of interferences with coping/stress tolerance and the nurse's role in multidisciplinary care. Pre-requisite: ALL Pathways: NPN 1252. Minimum "C" grade. Co-requisite or Pre-requisite. Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of "C" in each course. Pathway 3: (NPN 106 and NPN 108 and BIO 139 and PSY 223) with a minimum grade of "C" in each course. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.25 credits (11.25 contact hours).
Components: Clinical, Lecture

NPN 1254(0.75) Course ID: 005708
Special Populations with Psychiatric Disorders
Presents content specific to special populations such as infants, children and adolescents, the issue of abuse and neglect of children and elders, and the nurse's role in multidisciplinary care. Pre-requisite: ALL Pathways: NPN 1253. Minimum "C" grade. Pre-requisite or Co-requisite: Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of "C" in each course. Pathway 3: (NPN 106 and NPN 108 and BIO 139 and PSY 223) with a minimum grade of "C" in each course. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.25 credits (11.25 contact hours).
Components: Clinical, Lecture

NPN 1255(1) Course ID: 006280
Therapeutic Modalities and Plan of Care
Applies the nursing process to clients experiencing common mental health problems with emphasis on assisting clients to cope with psychological problems throughout the life span. Focuses on abnormal aspects of
mentalhealth. Pre-requisite: NPN 1255 Completion with a C or better. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
NPN 1257(1) Course ID:006281
Mental Health: Lab and Clinical Experience
Applies the nursing process to clients experiencing common mental health problems with emphasis on assisting clients to cope with psychological problems throughout the life span. Applies the nursing process within laboratory and clinical settings. Pre-requisite: NPN 1256 Completion with a C or better. Laboratory or Clinical: 1.0 credit (15 contact hours).
Components: Clinical, Laboratory
NPN 1351(0.75) Course ID:006262
Perioperative Care
Includes the nursing process for selected child/adult clients experiencing common health deviations/interfering with activities of daily living. Emphasizes the nurse as the provider of care for those patients experiencing alterations in the perioperative care. Pre-requisite: Pathway 1: (NPN 100 and NPN 105 and NPN110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) with a minimum grade of “C” in each course) OR Consent of PN Coordinator. Pathway 2: (NPN 1016 and 1113 and (BIO 135 or BIO 139) and (AHS 115 or AHS 120 or CLA 131 or ORST 103)) with a minimum grade of “C” in each course. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
NPN 13522(1.25) Course ID:006283
Alterations in Oxygenation 1
Provides for application of the nursing process for selected child/adult clients experiencing common health deviations/interfering with activities of daily living. Emphasizes the nurse as provider of care for those patients experiencing alterations in oxygenation focusing on respiratory function. Pre-requisite: NPN 1351 with a C or better. Lecture: 0.75 credit (11.25 contact hours). Laboratory: 0.5 credit (22.5 contact hours).
Components: Laboratory, Lecture
NPN 1353(1) Course ID:006284
Clinical 1
Provides for the application of the nursing process for selected child/adult clients experiencing common health deviations/interfering with activities of daily living. Emphasizes the nurse as provider of care for those patients experiencing alterations in oxygenation focusing on respiratory function. Pre-requisite: NPN 1351 with a C or better. Pre-requisite or Co-requisite: NPN 1355 (Pre-requisites require a C or better), Clinical 1 credit (45 contact hours).
Components: Clinical
NPN 1354(1.25) Course ID:006285
Alterations in Oxygenation 2
Provides for application of the nursing process for selected child/adult clients experiencing common health deviations/interfering with activities of daily living. Emphasizes the nurse as provider of care for those patients experiencing alterations in oxygenation focusing on respiratory function. Pre-requisite: (NPN 1351 and NPN 1352 and NPN 1353) with a grade of “C” or better in each course. Lecture: 0.75 credits (11.25 contact hours). Lab: 0.5 credit (22.5 contact hours).
Components: Laboratory, Lecture
NPN 1355(0.75) Course ID:006286
Threats To Defenses
Includes the nursing process for selected child/adult clients experiencing common health deviations/interfering with activities of daily living. Emphasizes the nurse as provider of care for those patients experiencing alterations in body defenses and alterations in oxygenation. Pre-requisite: NPN 1355 NPN 1355 (Pre-requisites require a C or better). Clinical: 1.0 credit (45 contact hours).
Components: Clinical
NPN 1401(0.75) Course ID:005760
Fluid/Electrolyte Balance Care
Presents content on fluid and electrolyte balance and the role of the practical nurse in planning appropriate interventions. Pre-requisite: NPN 106 and NPN 108 and BIO 139 and PSY 223 with a minimum grade of C in each course. Pre-requisite or Co-requisite: (NPN 125 and NPN 201). Minimum C grade. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.125 credits (5.625 contact hours). Clinical: 0.125 credits (5.625 contact hours).
Components: Clinical, Laboratory, Lecture
NPN 1402(0.75) Course ID:005761
Cardio-Respiratory Function Care
Presents content on cardiovascular and respiratory function, and the role of the practical nurse in planning appropriate interventions. Pre-requisite: NPN 1401 Minimum C grade. Pre-requisite or Co-requisite: NPN 201 and NPN 125 Minimum C grade. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.125 credits (5.625 contact hours). Clinical: 0.125 credits (5.625 contact hours).
Components: Clinical, Laboratory, Lecture
NPN 1403(0.75) Course ID:005763
Nutrition and Activity/Exercise Functions across the Lifespan
Presents content on alterations in nutrition and activity/exercise, the administration of medications, teaching, and the role of the practical nurse in planning appropriate interventions. Pre-requisite: NPN 1402 Minimum C grade. Pre-requisite or Co-requisite: NPN 201 and NPN 125 Minimum C grade. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.125 credits (5.625 contact hours). Clinical: 0.125 credits (5.625 contact hours).
Components: Clinical, Laboratory, Lecture
NPN 1404(0.75) Course ID:005764
Surgical Intervention Care
Presents content on the adult/child patient experiencing surgical intervention, and the role of the practical nurse in planning appropriate care. Pre-requisite: NPN 1403 Minimum C grade. Pre-requisite or Co-requisite: NPN 201 and NPN 125. Minimum C grade. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.125 credits (5.625 contact hours). Clinical: 0.125 credits (5.625 contact hours).
Components: Clinical, Laboratory, Lecture
NPN 2011(0.75 - 1) Course ID:005770
Ante-Partal Phase Care
Presents content on prenatal assessment and the role of the practical nurse in planning appropriate care. Pre-requisite: NPN 1403 Minimum C grade. Pre-requisite or Co-requisite: NPN 201 and NPN 125 Minimum C grade. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.125 credits (5.625 contact hours). Clinical: 0.125 credits (5.625 contact hours).
Components: Clinical, Laboratory, Lecture
NPN 2012(0.75) Course ID:005771
Intra-Partal Phase Care
Presents content on intra-partal assessment and the role of the practical nurse in planning appropriate interventions. Pre-requisite: (NPN 202 and (AHS 120 or AHS 115 or (CL 103)) with a minimum grade of “C” in each course. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.125 (5.625 contact hours). Laboratory: 0.125 (5.625 contact hours).
Components: Clinical, Laboratory, Lecture
NPN 2013(0.75) Course ID:005772
Post-Partal: Maternal Phase Care
Presents content on maternal post-partal assessment and the role of the practical nurse in planning appropriate interventions. Pre-requisite: NPN 202 with minimum C grade. Pre-requisite or Co-requisite: Pathway 2: (NPN 202 and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of “C” in each course. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.125 (5.625 contact hours). Laboratory: 0.125 (5.625 contact hours).
Components: Clinical, Laboratory, Lecture
NPN 2014(0.75) Course ID:005773
Nursing Care of the Newborn
Presents content on newborn assessment and the role of the practical nurse in planning appropriate interventions. Pre-requisite: NPN 2013 Minimum C grade. Pre-requisite or Co-requisite: Pathway 2: (NPN 202 and AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of “C” in each course. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.125 (5.625 contact hours). Laboratory: 0.125 (5.625 contact hours).
Components: Clinical, Laboratory, Lecture
NPN 2015(0.5) Course ID:006288
Prenatal and Women’s Health
Presents content on prenatal assessment and women’s health focusing on the role of the practical nurse in planning appropriate interventions in an interactive format. Pre-requisite: Pathway 1*: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 115 or AHS 120 or CLA 131 or ORST 103)) with a minimum grade of “C” in each course. Lecture: 0.5 credit (7.5 contact hours).
Components: Clinical, Laboratory, Lecture
NPN 2021(1) Course ID:006293
Alterations in Metabolism
Applies nursing process to selected child/adult clients experiencing common health deviations related to metabolic dysfunctions that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Pre-requisite: NPN 1356 Completion with a C or better. Lecture: 1 credit (15 contact hours).
Components: Lecture
NPN 2022(1)Course ID:006294
Fluid and Electrolytes
Applies nursing process to selected child/adult clients experiencing common health deviations related to fluid and electrolyte imbalances that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Pre-requisite: NPN 2012 Completion with a C or better. Laboratory or Clinical: 1 credit (45 contact hours).
Components: Clinical, Laboratory
NPN 2023(1) Course ID:006295
Metabolism Clinical Practice
Demonstrate the knowledge gained in NPN2021 and NPN2022. Provide care for clients with alterations in metabolism related to fluid and electrolyte imbalances. Pre-requisite: NPN 2022 Completion with a C or better. Laboratory or Clinical: 1 credit (45 contact hours).
Components: Clinical, Laboratory
NPN 2024(1) Course ID:006296
Cellular Proliferation
Applies nursing process to selected child/adult clients experiencing common health deviations related to cellular deviations that interfere with activities of daily living with emphasis on the nurse as the provider of care. Pre-requisite: NPN 2023 Completion of a C or better. Lecture: 1 credit (15 contact hours).
Components: Lecture
NPN 2025(1) Course ID:006297
Alterations in Perfusion
Applies nursing process to selected child/adult clients experiencing common health deviations related to cardiovascular dysfunctions that interfere with activities of daily living with emphasis on the nurse as the provider...
Course Descriptions

NRS 100(2) Course ID:006616
Enhancing Nursing Student Success
Enhances the probability of students being successful in a nursing program by fostering critical thinking skills and practice taking NCLEX-style examinations. Focuses on understanding the role of a nurse or student. Addresses stress and time management as contributors to nursing student success. Pre-requisite: Active statuson Kentucky Medicaid Nurse Aide Registry or its equivalent. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

Attributes: Technical

NRS 101(9) Course ID:004332
Nursing Care I
Establishes the foundation for competency based nursing practice by introducing beginning concepts and skills that are built upon the nursing curriculum. Introduces the four roles of nursing practice including humanfluorishing, human judgment, professional identity, and spirit of inquiry. Applies problem-solving and critical thinking skills in the care of clients across the life span and of diverse cultures with actual orthe potential for health alterations due to common acute and chronic health problems. Includes the application of the nursing process to meet the needs of patients at the practical nursing level. Pre-requisite: Admission to the Nursing Program; Proof of active status on Kentucky Medicaid Nurse Aide Registry or its equivalent, and computer literacy; (BIO 137 and MAT 150 or higher with a grade of “C” or better); PSY 110. Pre-requisite Or Co-requisite: (BIO 139 with a grade of “C” or better) and PSY 223. Lecture: 9.0 credit hours (255 clinical hours).

Components: Clinical, Lecture

Attributes: Technical

NRS 102(10) Course ID:004333
Nursing Care II
Includes the application of problem-solving and critical thinking skills in the care of clients across the lifespan and of diverse cultures with actual or the potential for alterations in health due to common acute and chronic health problems. Provides care of clients during the childbearing cycle focusing on common health alterations in the reproductive process. Strengthens the four roles of nursing practice including humanfluorishing, human judgment, professional identity, and spirit of inquiry while higher level skills are introduced. Includes an integrated clinical practicum of direct patient care in a health care facility or other health care organization to facilitate the transition from student role to LPN practice. Pre-requisite: NRS101 with letter grade of C or better. Pre-requisite Or Co-requisite: ENG 101 and oral communications course. Lecture: 10.0 credits (300 clinical hours).

Components: Clinical, Lecture

Attributes: Technical

NRS 200(3) Course ID:004334
LPN-ADN Transition
Facilitates the transition of licensed practical nurses into the nursing mobility program by building upon previous knowledge, attitudes, and cognitive and psychomotor skills using strategies of adult learning. Orient students to the philosophy and organizing framework of the ADN Program and assists the practicalnurse to make the role transition to registered nursing. Emphasizes essential concepts and beginning problem-solving skills required for registered nursing practice. Upon successful completion of all components of NRS200, the student will be admitted to NRS 203 and earn eight (8) credit hours for NRS 101 and eight (8) hours for NRS 102 for a total of sixteen (16) credit hours. Pre-requisite: Admission to nursing program; BIO
Nursing Care III
Applies problem-solving and critical thinking skills in the care of diverse clients/families across the lifespan with actual or the potential for alterations in health due to complex acute and chronic health problems. Emphasizes leadership, management concepts, critical decision-making, knowledge, judgment, skills, and professional values within a legal/ethical framework. Introduces the RN responsibilities in relation to the four roles of nursing practice including human flourishing, human judgment, professional identity, and spirituality.
Pre-requisite: NRS 102 with a grade of “C” or better. Pre-requisite Or Co-requisite: BIO 225 or BIO 227 with a grade of “C” or better; ENG 102. Lecture: 9.0 credits (225 clinical hours).
Components: Clinical, Lecture
Attributes: Technical

NRS 204(10)
Course ID: 004336
Nursing Care IV
Integrates previous knowledge and skills into the development of the associate degree nurse. Focuses on the four roles of nursing practice including human flourishing, human judgment, professional identity, and spirituality in order to promote health, prevent illness, and facilitate the transition from student role to RN practice. Includes an integrated clinical practicum of direct patient care in a health care facility or health care organization to facilitate the transition from student role to RN practice. Pre-requisite: NRS 203 and (BIO 227 or BIO 225) with a grade of “C” or better. Pre-requisite Or Co-requisite: Prior to or concurrent Heritage/Humanities. Lecture: 10.0 credits (270 clinical hours).
Components: Clinical, Lecture
Attributes: Technical

NSG 100(3)
Course ID: 005269
Preparation for Nursing
Explores careers in the nursing profession. Includes career options and educational pathways, goal setting and self-assessment tools, strategies for success in nursing programs, and trends impacting nursing’s future Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

NSG 101(9)
Course ID: 000568
Nursing Practice I
Covers nursing practice using functional health patterns within the context of the contemporary health care delivery system. Emphasizes foundation knowledge of nursing practice, skills acquisition, and the care of patients with health perception-health management, value-belief, and rest-sleep dysfunctions. Pre-requisite: Admission to the Associate Degree Nursing Program, BIO 137 and MAT 150 or higher with a grade of “C” or better, PSY 110, 75 hour nursing assistant course or its equivalent, and Computer Literacy. Pre-requisite Or Co-requisite: BIO 139 with a grade of “C” or better, and PSY 110, 75.0 contact hours. Lecture: 5.0 credits (75 contact hours). Clinical: 4.0 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 106(9)
Course ID: 006179
Nursing One
Introduces and applies Gordon’s Functional Health Patterns (FHP) within the context of the contemporary healthcare system. Emphasizes foundation knowledge of nursing practice, skills acquisition, and care of clients who withdraw for or actual common chronic health pattern dysfunctions. Pre-requisite: Admission to Associate Degree Nursing Program, BIO 137 (within ten years) with a grade of “C” or better, MAT 150 with a grade of “C” or better, and ENG 101 Lecture: 5.0 credits (75 contact hours). Clinical: 4.0 credits (180 contact hours).
Components: Clinical, Lecture
Attributes: Technical

NSG 126(3)
Course ID: 004280
Pharmacology in Nursing
This is an elective course which studies common drugs, their classification, and their effects on functional and dysfunctional health patterns. Areas of emphasis include nursing responsibility, accountability, and application of the nursing process regarding drug therapy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

NSG 196(5)
Course ID: 006180
Nursing LPN Bridge Course
Builds upon the LVNLPN experiences in application of core components of nursing. Focuses on the nursing care for the patient with mental health dysfunctions and the patient experiencing dysfunctional health patterns. Covers selected content and skills from Nursing One and Nursing Two. Includes the role of the Associate Degree Nurse and application of the core components of nursing practice to patient’s experience. Pre-requisite: Admission to Associate Degree Nursing Program, BIO 137 and BIO 139 (within ten years) with a grade of “C” or better, PSY 110, and ENG 101. Co-requisite: NSG 216. Pre-requisite Or Co-requisite: PSY 223 and Oral Communications Course. Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 197(3)
Course ID: 005907
Transition to ADN
Builds upon the basic nursing skills and concepts learned in the LVNLPN 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 the dysfunctional health patterns of nutritional-metabolic and elimination. Upon successful completion of all components of the course, the student will be admitted to NSG 220 and will have earned by advanced standing, 15 credit hours in nursing. Pre-requisite: Admission to the Associate Degree Nursing Program and (BIO 137, BIO 139, and MAT 150 or higher) with a grade of “C” or better, PSY 110, PSY 223, ENG 101, Oral Communications and Digital Literacy. Pre-requisite Or Co-requisite: NSG 215 and NSG 212 with a grade of “C” or better. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credits (22.5 contact hours).
Components: Clinical, Lecture
Attributes: Technical

NSG 199(2)
Course ID: 005905
Accelerated Transition: PN-A.D.N Bridge
Admission to the Associate Degree Nursing Program and (BIO 137, BIO 139, and MAT 150 or higher) with a grade of “C” or better, PSY 110, 75 hour nursing assistant course or its equivalent, and Computer Literacy. Pre-requisite Or Co-requisite: BIO 139 with a grade of “C” or better, and PSY 110, 75.0 contact hours. Lecture: 5.0 credits (75 contact hours). Clinical: 4.0 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 201(5)
Course ID: 000790
LPN to ADN Bridge
This course will build upon the basic nursing skills and concepts learned in the LVNLPN experience. Thoroughly designs to assist the Practical Nurse to make the beginning transition to the RN role. Areas of study include the role of the Associate Degree Nurse and application of the core components of nursing practice to clients experiencing the dysfunctional health patterns of health perception-health management, value-belief, rest-sleep, activity-exercise and nutritional-metabolic. Upon successful completion of all components of the course, the student will be admitted to NSG 203 and will have earned by advanced standing, 18 credit hours in nursing. Lecture: 4.0 hours, Laboratory: 3.0 hours. Pre-requisite: BIO 137, BIO 139, MAT 150 or higher with a grade of “C” or better, PSY 110, ENG 101, and Computer Literacy.
Components: Laboratory, Lecture
Attributes: Technical

NSG 206(8)
Course ID: 006161
Nursing Two
Includes the application of core components of nursing to clients experiencing alterations in health. Focuses on nursing care for the client with mental health dysfunctions and the client experiencing acute and chronic health pattern dysfunctions. Pre-requisite: NSG 106 with a grade of “C” or better. Co-requisite: NSG 216 OR HST 121. Pre-requisite Or Co-requisite: PSY 223 and Oral Communications Course. Lecture: 5.0 credits (75 contact hours). Laboratory/Clinical: 4.0 credits (180 contact hours). 45:1 ratio.
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 210(6)
Course ID: 005906
Medical Surgical Nursing I
Focuses on the application of the core components of nursing to adult patients experiencing dysfunctional health patterns. Emphasizes the care of patients with nutritional-metabolic and elimination dysfunctional health patterns. Pre-requisite: (NSG 101 and BIO 139) with a grade of “C” or better and PSY 223. Pre-requisite Or Co-requisite: (NSG 212 and NSG 215) with a grade of “C” or better. Lecture: 2.0 credits (30 contact hours). Laboratory: 3.0 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 211(3)
Course ID: 005908
Maternal Newborn Nursing
Focuses on the application of the core components of nursing to the care of childbirth families experiencing functional and dysfunctional health patterns. Pre-requisite: (NSG 210, NSG 212 and NSG 215), with a grade of “C” or higher, ENG 101 and Oral Communications. Pre-requisite Or Co-requisite: NSG 220 with a grade of “C” or higher, ENG 102, and BIO 225. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 212(3)
Course ID: 005909
Behavioral Health Nursing
Focuses on the application of the nursing care to patients experiencing a dysfunctional health pattern. Emphasizes the care of patients with Coping- Stress-Tolerance and Altered Role-Relationship health patterns. Pre-requisite: (NSG 101 and BIO 139) with a grade of “C” or higher and PSY 223. Pre-requisite Or Co-requisite: (NSG 210 and NSG 215) with a grade of “C” or higher. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 213(3)
Course ID: 005910
Pediatric Nursing
Focuses on the application of the core components of nursing to the care of the child and family experiencing functional and dysfunctional health patterns. (Unsuccessful completion of NSG 213 will require mandatory withdrawal from NSG 230, 201 KAR 20.320). Pre-requisite: (NSG 210 and NSG 211 and BIO 225) with a grade of “C” or better, ENG 102. Co-requisite: NSG 230 or consent of Instructor. Pre-requisite Or Co-requisite: NSG 225 with a grade of “C” or better, and Heritage/Humanities.
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, eye/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 206 and ENG 101) with a grade of "C" or higher and PSY 223. Pre-requisite or Co-requisite: (NSG 210 and ENG 101) with a grade of "C" or higher and Oral Communication. Lecture: 1.0 credit (15 contact hours).

Components: Lecture Attributes: Technical

NSG 215(1) Course ID:005911 Pharmacology I
Focuses on common drugs, their classification and effects on functional and dysfunctional health patterns (value/belief, rest/sleep, health perception/health management, nutritional/metabolic and elimination health patterns). Emphasizes nursing responsibility, accountability, and application of the nursing process regarding drug therapy. Pre-requisite: (NSG 101 and BIO 139) with a grade of "C" or higher and PSY 223. Pre-requisite or Co-requisite: (NSG 210 and ENG 101) with a grade of "C" or higher and Oral Communication. Lecture: 1.0 credit (15 contact hours).

Components: Lecture Attributes: Technical

NSG 216(1) Course ID:006182 Nursing Pharmacology I
Focuses on common drugs, classifications, indications, and effects. Emphasizes nursing implications and the use of the nursing process in medication administration with emphasis on content introduced in Nursing One and Nursing Two. Pre-requisite: NSG 100 with a grade of "C" or better. Co-requisite: NSG 206 or NSG 196. Pre-requisite or Co-requisite: PSY 223 and Oral Communications course. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 220(6) Course ID:005912 Medical/Surgical Nursing II
Focuses on the application of the core components of nursing to adult patients experiencing dysfunctional health patterns. Emphasizes the care of patients with activity-exercise dysfunction, heartheen, cardiorespiratory and musculoskeletal patterns. Pre-requisite: (NSG 210, NSG 215 and NSG 212) with a grade of "C" or higher and ENG 101 and Oral Communications. Pre-requisite or Co-requisite: (NSG 211 and BIO 225) with a grade of "C" or higher and ENG 101 and Oral Communications. Lecture: 3.0 credits (45 contact hours). Laboratory: 3.0 credits (135 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Technical

NSG 225(1) Course ID:005913 Pharmacology II
Focuses on common drugs, their classification and effects on functional and dysfunctional health patterns (activity-exercise, coping/stress/tolerance, role/relationship, altered self-perception/self-concept, and cognitive/perceptual). Emphasizes nursing responsibility, accountability, and application of the nursing process regarding drug therapy. Unsuccessful completion of NSG 225 will require mandatory withdrawal from NSG 230; 201 KAR 20:320. Pre-requisite: (NSG 220 and NSG 211 and BIO 225) with a grade of "C" or higher and ENG 102. Co-requisite: NSG 230 or consent of instructor. Pre-requisite or Co-requisite: Heritage/Humanities/Foreign Language and NSG 213. Lecture: 1.0 credit (15 contact hours).

Components: Lecture Attributes: Technical

NSG 226(1) Course ID:006183 Nursing Pharmacology II
Focuses on common drugs: classifications, indications, and effects. Emphasizes nursing implications and the use of the nursing process in medication administration with emphasis on content introduced in Nursing Three and Nursing Four. Pre-requisite: (NSG 206 and NSG 216) with a grade of "C" or better. Co-requisite: NSG 236 Pre-requisite or Co-requisite: BIO 225 (within ten years) with a grade of "C" or better and ENG 102. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, 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, eye/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 higher and ENG 102. Pre-requisite or Co-requisite: NSG 213, NSG 225, Heritage/Humanities/Foreign Language. Lecture: 3.0 credits (45 contact hours). Laboratory: 3.0 credits (135 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Technical

NSG 236(9) Course ID:006184 Nursing Three
Includes application of the core components of nursing to the care of child-bearing and child-rearing families experiencing functional and dysfunctional health patterns. Pre-requisite: (NSG 206 and NSG 216 with a grade of "C" or better OR completion of HST 121) or completion of NSG 196 with a grade of "C" or better. Co-requisite: BIO 225 (within 10 years) with a grade of "C" or better OR completion of HST 122 with a grade of "C" or better and ENG 102. Nursing Pharmacology II (NSG 226) or completion of HST 121. Lecture: 5.0 credits (75 contact hours). Laboratory/ Clinical: 4.0 credits (180 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NSG 246(9) Course ID:006185 Nursing Four
Emphasizes the development of the nurse as a provider of care, management, and member of the nursing profession. Provides for the application of critical thinking skills in the care of diverse patients/families across the lifespan with actual or potential alteration in health due to complex acute and chronic health problems. Includes an integrated practicum with an emphasis on leadership, management, clinical judgment, collaboration, knowledge, skills, and professional values within the legal/ethical framework to facilitate the transition of the student to Registered Nurse practice. Pre-requisite: NSG 236 and NSG 226 with a grade of "C" or better. Pre-requisite or Co-requisite: Heritage/Humanities/Foreign Language. Lecture: 5.0 credits (75 contact hours). Laboratory/ Clinical: 4.0 credits (180 contact hours, 45:1 ratio).

Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NSG 270(3) Course ID:004293 Genetic Disorders
Introduction to various genetic disorders which health care workers are likely to see during their careers. Specific areas of study include basic genetic concepts, inheritance modalities, genetic disorders, and their impact on nursing care. Follows up on information obtained in Anatomy and Physiology, high school sciences, and basic biology classes presently offered by KCTCS.

Components: Lecture Attributes: Technical

NSG 295(3) Course ID:005782 Healthcare Cultural Immersion Experience
Introduces health care providers to cultural values, beliefs, practices, and communication patterns of a chosen culture through an immersion experience. Focuses on basic cultural vocabulary and on behaviors, beliefs, and nursing and health care practices of the chosen population. May be conducted in a country native to the chosen cultural group. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

NSG 298(3) Course ID:004434 Alternative and Complementary Therapies
This is an elective course that focuses on the impact of alternative and complementary therapies in nursing practice. Holistic nursing is emphasized, as well as the nurse's role in enhancing healing of the whole person from birth to death. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

NSG 299(1 - 4) Course ID:000531 Instructor Consent Required
Selected Topics in Nursing (Topic)
Various nursing topics, issues, and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; courses may be repeated with different topics to a maximum of six credit hours. Lecture: Varies by topic; Laboratory: Varies by topic. Pre-requisite: Consent of instructor.

Components: Laboratory, Lecture Attributes: Technical

OST Office Systems Technology

OST 100(1) Course ID:003768 Keyboarding
Develops skill operating a keyboard by touch. Lab: 1.0 credit (45 contact hours).

Components: Laboratory Attributes: Technical

OST 101(3) Course ID:004926 Keyboarding & Intro to Document Formatting
Develops skill in operating a keyboard by touch and to formatting an introductory level of skill producing standard business documents using a word processing program with speed and accuracy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

OST 105(3) 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. Teaches beginning skills in word processing electronic spreadsheets, presentations, databases and integration as well as how to keep up with emerging technologies and use computer skills to enhance quality office and employability. Pre-requisite: RDG 020 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

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 109(3) Course ID:004520 Legal Terminology
Introduces the judicial system (discovery, trial, and appellate processes), civil law, criminal law, legal terminology and legal citations commonly used in the legal field. Includes terms and how to use them in legal context. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

OST 110(3) Course ID:003770 Instructor Consent Required
Document Formatting and Introduction to Word Processing
Provides experience in word processing including the mastery of touch typing with speed and accuracy using industry standard software. Pre-requisite: RDG 020 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, futures, bonds, commodities, interest rates, and taxes. The primary emphasis is on short and long term financial planning along with interpretation of financial information. Careers in the financial industry discussed. Lecture: 3 credits (45 contact hours).
Components: Lecture

OST 113(1) Course ID:005270
Speedbuilding
Pre-requisite: OST 100 or equivalent as determined by typing competency test.
Components: Lecture
Attributes: Technical

OST 130(3) Course ID:004518
Typography
Introduces the principles of typography, type basics, type aesthetics, how to design with type, parameters of type and how they can be used to produce quality type. Utilizes advance commands and pagination compositional skills. Studies grids, file management and other options such as design standards with business publications. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 150(3) Course ID:003771
Transcription and Office Technology
Pre-requisite: OST 110. Lecture: 3.0 credits (45 contact hours).
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
Uses advanced features of a current word processing software to format and produce documents utilizing in an office. Pre-requisite: OST 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 213(3) Course ID:004517
Business Calculations for The Office Professional
Pre-requisite: OST 105. 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 telephonenumber procedures. Pre-requisite Or Co-requisite: OST 110. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 216(1 - 6) Course ID:004515
Selected Topics
Pre-requisite: OST 105. Lecture: 1-6 hours.
Components: Lecture

OST 220(3) Course ID:003775
Administrative Office Simulations
Pre-requisite: OST 210, OST 215, and OST 240, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 221(3) Course ID:005469
Legal Office Simulation
Pre-requisite: OST 110. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 225(3) Course ID:003776
Introduction to Desktop Publishing
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 235(3) Course ID:003777
Business Communications Technology
Pre-requisite: Technical
Components: Lecture
Attributes: Technical

OST 240(3) Course ID:003778
Software Integration
Pre-requisite: CIT 105 or OST 105. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 250(3) Course ID:004514
Advanced Desktop Publishing
Pre-requisite: OST 225 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 260(1 - 6) Course ID:004425
Introduction to Business Graphics
Pre-requisite: OST 225 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 272(3) Course ID:004511
Presentation Graphics
Uses industry standard software to create business presentations, business graphics, transparencies, and slides. Applies editing, formatting, page layout and design, and paste-up techniques for clarity and impact. Pre-requisite: OST 105. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 275(3) Course ID:003779
Office Management
Pre-requisite: OST 210, OST 215, and OST 240, or consent of instructor. Lecture: 3 credits.
Components: Laboratory

OST 285(1 - 3) Course ID:003780
Instructor Consent Required
Administrative Office Technology Internship
Provides the opportunity to apply acquired occupational skills in a realistic setting, enhancing the transition from school to work. Requires approval of OST advisor. Pre-requisite: OST 210, OST 215, and OST 240, or consent of instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Laboratory
Attributes: Technical

OST 1101(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 1102(1) Course ID:016304
Document Letters Memoranda
Provides experience in word processing for keying letters and memoranda using industry standard software. Pre-requisite: OST 1101 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 1103(1) Course ID:016305
Document Tables and Reports
Provides experience in word processing for keying reports and tables from reference materials using industry standard software. Pre-requisite: OST 1102 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 1601(1) Course ID:016814
Intro to Records Management
Describes and demonstrates the importance and specifics of record management requirements as well as specific career information. Pre-requisite OR Co-requisite: OST 105. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 1602(1) Course ID:016815
Intro to Database Management
Identifies ways to file and retrieve documents and compare automated and manual ways to store records. Pre-requisite OR Co-requisite: OST 105. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Course Descriptions

OST 1603(1) Course ID:016816
Records and Database Mgmt Tech
Analyze automated techniques and describe the life cycles of stored records. Demonstrate skills related to all aspects of database filing. Pre-requisite OR Co-requisite: OST 105. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 2101(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 2151(1) Course ID:016851
Career Planning
Studies the practice and procedures of current office concepts including job application procedures, goal-setting, and professionalism. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 2152(1) Course ID:016821
Key Office Procedure Skills
Emphasizes specific techniques and skills needed for an office setting including mail procedures, communication and public relations, business ethics and etiquette. Pre-requisite: OST 2151. Pre-requisite OR Co-requisite: OST 110.
Components: Lecture

OST 2153(1) Course ID:016822
Decision Making Methods
Studies the practice and procedures of current office concepts including decision-making skills, problem-solving techniques, travel and meeting arrangements, and time and stress management. Pre-requisite: OST 2152. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 2251(1) Course ID:016309
Desktop Publishing Software
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Components: Lecture

OST 2501(1) Course ID:016823
Intro to Adv Desktop Publishing
Demonstrate methods of creating quality publications using desktop publishing software. Pre-requisite OR Co-requisite: OST 225. Lecture: 1.0 credits (15 contact hours)

OST 2502(1) Course ID:016824
Using Graphics for Publication
Create and design desktop publishing documents using a variety of graphics. Pre-requisite: OST 2501. Pre-requisite OR Co-requisite: OST 225. Lecture: 1.0 credits (15 contact hours)

OST 2503(1) Course ID:016825
Creating Superior Publications
Design and create superior publications using desktop publishing software. Pre-requisite: OST 2502. Pre-requisite OR Co-requisite: OST 225. Lecture: 1.0 credits (15 contact hours)

OST 2751(0.5) Course ID:005906
Office Management Principles
Includes introductory management principles and techniques for the modern business office. Lecture: 0.5 credits (7.5 contact hours)

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: OST 2751. Lecture: 1 credit (15 contact hours)

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: OST 2751. Lecture: 0.5 credit (7.5 contact hours)

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: OST 2751. Lecture: 1 credit (15 contact hours)

OTA 101(3) Course ID:006686
Introduction to Occupational Therapy
Introduces the profession of occupational therapy by examination of history, philosophy, and theoretical foundations. Examines roles of Occupational Therapist (OT) and Occupational Therapy Assistant (OTA) with respect to education, credential, employment settings, and ethics. Outlines usage of Occupational Therapy Practice Framework, medical terminology, group dynamics, and communication skills. Pre-requisite: Admission to OTA program or permission of instructor. Lecture/Lab: 3.0 credits (90 contact hours)

OTA 113(2) Course ID:006689
Applied Anatomy and Kinesiology
Studies the musculoskeletal and nervous systems of the human body in relationship to movement and function. Component: Lecture Attributes: Technical

OTA 114(3) Course ID:006871
Physical Dysfunction
Studies the effects of physical conditions commonly seen by Occupational Therapy, including diagnosis, instruction, treatment, and application of treatment. Introduces practice models to guide treatment applications, including procedures for multiple conditions and 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. Co-requisite: 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, informal, wellness, and prevention models applied throughout the lifespan. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

OTA 216(2) 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. Lecture/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 practice 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 therapist. 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 IIB Fieldwork
Provides the opportunity to observe and participate in various settings appropriate to occupational therapy practice 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. Honors professional behaviors and communication skills established in previous occupational therapy classes. Pre-requisite: Admission to OTA program and permission of instructor. Clinical: 1.0 credit (60 contact hours).
Components: Clinical
Attributes: Technical

OTA 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 ethics, 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, 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
Explores the concerns for occupational therapy in the aging population. Examines how physical, emotional and cognitive processes change through adulthood. Discusses the concepts of occupational therapy throughout the life span employing a holistic approach to intervention. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

OTA 265(5) Course ID:006878
Level IIA Fieldwork
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapist practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of occupational therapy programs with clients with a variety of diagnoses and ages. Cultivates skills necessary to function on entry-level of practice through the first of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to OTA program and permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum
Attributes: Technical

OTA 267(5) Course ID:006879
Level IIB Fieldwork
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapist practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of occupational therapy programs with clients with a variety of diagnoses and ages. Strengthens complex skills, including critical thinking, required for entry-level of practice through the final of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to OTA program and permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum

OTA 277(5) Course ID:007411
Level IIB Fieldwork
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapist practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of occupational therapy programs with clients with a variety of diagnoses and ages. Strengthens complex skills, including critical thinking, required for entry-level of practice through the final of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to OTA program and permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum

OTA 286(2) Course ID:006880
Clinical Seminar
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. Corequisite: OTA 280 OR OTA 276 Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PGL Paralegal Technology

PGL 111(3) Course ID:007051
Legal Systems and Terminology
Provides an overview of major principles and functions of the state and federal legal systems, introduces various legal fields for professional opportunities, presents legal vocabulary, gives an overview of different areas of law, and presents ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Corequisite: PGL 111. 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. Corequisite: 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/representations, history of the profession, professional ethics through fact analysis, and an overview of law firm management. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGL 211(3) Course ID:007054
Family Law
Examines the areas of law pertaining to domestic relations, emphasizing ethics. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGL 212(3) Course ID:007055
Legal Writing
Includes composition of legal communications, briefs, memoranda, and other legal documents, with an emphasis ethical considerations. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGL 213(3) Course ID:007056
Civil Litigation I
Presents the litigation process and emphasizes the structure of the court systems. Includes gathering information and evidence, summarizing and arranging materials, maintaining docket and file control, developing litigation case, and interviewing clients and witnesses, using ethical standards. Pre-requisite: PGL 111.
Components: Lecture
Attributes: Technical

PGY 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

PGY 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 an emphasis on trial preparation and appellate procedure. Pre-requisite: PGL 213. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGY 240(3) Course ID:007060
Real Property II
Examines legal documents related to real property as recorded in the clerk's office, the tax assessor's office, and the circuit court's office. Includes compiling a title abstract and completing an assignment topo 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

PGY 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

PGY 224(3) Course ID:007062
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

PGY 213(3) Course ID:007068
Introduces basic understanding of working with admixtures. Focuses on aseptic technique and basic sterile compounding.
Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

PGY 210(6) Course ID:000846
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 104(2) Course ID:004160
Parenterals
A basic understanding of working with admixtures. Focuses on aseptic technique and basic sterile compounding.
Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
 Attributes: Technical

PHA 110(6) Course ID:004159
Pharmacy Procedures and Skills
Introduces the field of pharmacy. Includes pharmacy technician responsibilities, legal requirements, safety issues, and basic skills of a pharmacy technician.
Lecture: 4.0 credits (60 contact hours), Lab: 2.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

PHA 125(2) Course ID:004161
Pharmaceutical Calculations
Covers basic math review, percentage strengths, ratio and proportion, conversion between the apothecary and metric systems, and intravenous calculations. Focus is on equivalencies and calculation of drug dosages.
Pre-requisite: MAT 055 or equivalent. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PHA 136(3) Course ID:001930
Pharmacology
Introduces the study of drugs and their effect on the human body. Emphasis is placed on the most commonly used drugs, their dosage and common side effects as well as any adverse reactions that might occur.
Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PHA 145(3) Course ID:0016998
Pharmaceutical Calculations
Covers basic math review, percentage strengths, ratio and proportion, conversion between the apothecary and metric systems, and intravenous calculations. Focuses on equivalencies and calculation of drug dosages presented through lecture and student participation in lab activities.
Pre-requisite: MAT 055 or equivalent. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

PHA 200(3) Course ID:0001931
Admixtures for IV Therapy
Provides a basic working knowledge for the pharmacy technician involved in the preparation of IV admixtures.
Pre-requisite: (PHA 110 and PHA 136) and PHA 145. Corequisite: PHA 205. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PHA 205(1) Course ID:0001932
Admixture Preparations
Provides the opportunity to become proficient in the techniques of IV admixing and in the use of related equipment associated with sterile product preparation.
Pre-requisite: (PHA 110 and 136) with a grade of C or greater. Co-requisite: PHA 200 or Consent of Instructor. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

PHA 210(6) Course ID:0001934
Drug Classifications
Provides a study of the principles and classifications, drug nomenclature, and dosage forms as related to the body. Pre-requisite: (PHA 110 and 136) with a grade of C or greater. Co-requisite: PHA 205 Consent of Instructor. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

PHA 250(1 - 8) Course ID:001936
Instructor Consent Required
Pharmacy Experience
Provides work experience in the pharmacy setting to enhance skills required to reach occupational goals for the pharmacy technician. Pre-requisite: Consent of Instructor.
Clinical: 1.0 - 8.0 credits (60-480 contact hours).
Components: Clinical
Attributes: Technical

PHB 100(6) Course ID:001938
Pre-requisite: Consent of Instructor.
Pre-phlebotomy Clinical Experience
Prepares the student as an integral member of the healthcare team to collect blood from patients/donors in hospitals, blood banks or clinics for analysis or other medical purposes.
Provides standard precautions, record keeping, and therapeutic communication skills. Lecture/Lab: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

PHB 120(6) Course ID:003809
Fundamentals of Clinical Laboratory Phlebotomy
Pre-requisite: Consent of Instructor.
Fundamental techniques of areas of the clinical laboratory appropriate to the phlebotomist are introduced. Includes a study of medical ethics, medical terminology, anatomy and physiology of the circulatory system, medical organizations, communication, record keeping, specimen collection, chain of custody, laboratory safety, and quality control.
Lecture: 3 hrs; Laboratory: 9 hrs. Pre-requisite: CPR Certification, Malpractice/insurance, Hepatitis, Varicella, PPD, Rubella, and Rubella blood work results.
Components: Laboratory, Lecture
Attributes: Technical

PHB 151(1) Course ID:0004072
Phlebotomy: Clinical Experience
Instructor Consent Required
Pre-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. Includes a study of medical ethics, laboratory terminology, anatomy, and physiology of the circulatory system, communication and recordkeeping, specimen processing, laboratory safety, isolation procedures and special collection.
Lecture: 1.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PHB 152(1) Course ID:004175
Instructor Consent Required
Phlebotomy: Clinical Experience
Pre-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. Includes a study of medical ethics, laboratory terminology, anatomy, and physiology of the circulatory system, communication and recordkeeping, specimen processing, laboratory safety, isolation procedures and special collection.
Lecture: 1.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PHB 153(4) Course ID:004479
Instructor Consent Required
Advanced Topics in Phlebotomy
Pre-phlebotomy Clinical Experience
Prepares the student as an integral member of the healthcare team. One who collects blood from patients/donors in hospitals, blood banks or clinics for analysis or other medical purposes. Practices standard precautions, record keeping, vital signs and therapeutic communication skills.
Pre-requisite: PHB 151 Phlebotomy for the Healthcare Worker. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
Attributes: AH - Arts and Humanities

PHI 170(3)  Course ID:016632
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. Pre-requisite: ENG 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Other

PHI 150(3)  Course ID:016638
Defending Business Ethics
Evaluates 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 Physics

PHX 150(3)  Course ID:001944
Introductory Physics
A non-calculus approach to the concepts and applications of the physical principles of force, work, rate, resistance, energy, power, force, transformers and gas laws is presented in this course. Students are shown by examples, classroom demonstration, and laboratory experiments how these concepts are applied to the translational and rotational mechanical, fluidal, electrical and thermal energy systems. Problem solving techniques and scientific method are stressed throughout this course. Pre-requisite: MAT 116 or MAT 126. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
PHY 161(1) Course ID:000471
Introductory Physics I Laboratory
Investigates concepts introduced in PHY 151 through experiments in classical mechanics and thermal physics. Pre-requisite or concurrent: PHY 151. Lab: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 162(1) Course ID:000475
Introductory Physics II Laboratory
Investigates concepts introduced in PHY 152 through experiments in electricity, magnetism, light, atoms, and nuclei. Pre-requisite or concurrent: PHY 152. Laboratory: 1 credit (15 contact hours). Lab: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 171(4) Course ID:000156
Applied Physics
Surveys mechanics, heat, sound, electricity, magnetism, light, and modern physics as applied to practical systems. Pre-requisite: (MAT 085 or (MAT 116 or greater) or Equivalent math placement score) or consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

PHY 171A(4) Course ID:015438
Applied Physics: Mechanics
Surveyed selected topics in motion, force, energy, and momentum. Pre-requisite: (MAT 085 or (MAT 116 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 1.0 credit (19.5 contact hours).
Components: Lecture

PHY 171C(1) Course ID:015441
Applied Physics: Optics and Modern Physics
Surveys selected topics in light, optics, and modern physics. Pre-requisite: (MAT 085 or (MAT 116 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 1.0 credit (19.5 contact hours).
Components: Lecture

PHY 171D(1) Course ID:015440
Applied Physics: Electricity, Magnetism, and Sound
Surveyed selected topics in waves, sound, electricity, and magnetism. Pre-requisite: (MAT 085 or (MAT 116 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 1.0 credit (19.5 contact hours).
Components: Lecture

PHY 172(2) Course ID:004817
Physics for Health Sciences
Introduces the basic concepts of motion, forces, work, energy, power and waves through experimentation, as applied in electricity and magnetism, optics, atomic, and nuclear physics. 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 greater) or MA108 or an ACT math score of 25 or higher. Lab: 1 credit hour (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. Lab: 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. Lab: 1.0 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 231(4) Course ID:000290
General University Physics I
Focuses on the mechanics of matter as governed by Newton's Laws and by the conservation laws of energy, linear momentum, and angular momentum using calculus and trigonometry. Companion lecture to PHY 241 laboratory. Pre-requisite Or Co-requisite: MAT 185 or MA 114 or equivalent. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).
Components: Discussion, Lecture
Attributes: SN - Science

PHY 232(4) Course ID:000625
General University Physics II
Focuses on electromagnetic phenomena, circuits, and optics using vector calculus. Companion lecture to PHY242 laboratory. Pre-requisite: PHY 231. Pre-requisite Or Co-requisite: MAT 275 or MA 213 or equivalent. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).
Components: Discussion, Lecture
Attributes: SN - Science

PHY 241(1) Course ID:000638
General University Physics I Laboratory
Enhances concepts introduced in PHY 231 through a complement of experiments relating to motion, Newton's laws, rotation, and energy conservation principles. Pre-requisite Or Co-requisite: PHY 231. Laboratory: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 242(1) Course ID:000642
General University Physics II Laboratory
Enhances concepts introduced in PHY 232 through a complement of experiments probing electromagnetic phenomena, circuits, and optics. Pre-requisite Or Co-requisite: PHY 232. Laboratory: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 171(0.5) Motion & Newton's Laws
Surveyed 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 1711(0.5) Motion & Newton's Laws
Surveyed 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 1713(0.5) 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 (9.37 contact hours).
Components: Lecture

PHY 1715(0.5) Modern and Nuclear Physics
Surveyed 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 1717(0.5) Integrated Physics Concepts
Surveyed selected topics in applied physics. Pre-requisite: PHY 1711 and PHY 1712 and PHY 1713 and PHY 1714 and PHY 1715 and PHY 1716, and PHY 1717 or Consent of instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).
Components: Lecture

PL 101(4) PLastics
This course provides the student with an introduction to plastics processes and terminology. Topics covered include polymer chemistry, polymer processing, thermoplastics, properties of plastics, plastic manufacturing processes, manufacturing equipment, tooling and molds, and health, safety and business considerations in the commercial production of plastic products. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

PL 151(4) Polymer Science & Testing
Provides an in-depth study of various plastics and important processing methods. Examines molecular structures and their effect on mechanical, chemical and physical properties. Includes commodity and engineering thermoplastics, thermosets and elastomers, extrusion, injection, blow molding and thermoforming. Pre-requisite: PL 101. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

PLB 100(3) Basic Theory of Plumbing
Provides a history of the plumbing trade and basic principles of the trade. Lecture: 2 credits (45 contact hours).
Components: Lecture
Attributes: Technical
PLB 105(3) Course ID:004326
Plumbing Principles
Provides the proper installation procedures for piping, water heaters and sewage systems. The plumbing codes appropriate for each installation will also be studied. Laboratory: 3 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

PLB 150(3) Course ID:001945
Plumbing, Introduction to the Trade
Introduces the origin and basic principles of the plumbing industry. Includes the orientation of methods associated with the plumbing industry. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PLB 151(3) Course ID:001946
Basic Plumbing Skills
This course introduces the student to basic pipe joining techniques. Co-requisite: PLB 150. Laboratory: 3 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PLB 163(2) Course ID:001949
Plumbing Fixtures
Develops the skills necessary to rough-in and install a kitchen group and laundry fixtures for residential and commercial applications. Pre-requisite: PLB 150. Co-requisite: F. PLB 250. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PLB 250(3) Course ID:001950
Plumbing Appliances & Fixtures
Presents the installation practices of residential water heaters (electrical and gas); and the installation of commercial water heating systems with pumps, controls, and valve systems. Study will also include layout and testing. Pre-requisite: PLB 150. Lecture: 6 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PLB 261(2) Course ID:001951
Pumps and Water Heaters
Develops skills in the installation of plumbing appliances (water heater), and appurtenances. Pre-requisite: PLB 150. Co-requisite: PLB 250. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PLB 262(3) Course ID:001955
Backflow Prevention
This course teaches the student how to protect portable water systems from the hazards of backflow. Pre-requisite: Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PLB 270(3) Course ID:001956
License Preparation for Journeyman Exam
Provides a study of Kentucky Code in preparation for the Journeyman Exam. Lecture: 2 credits (30 contact hours).

PLB 298(4) Course ID:001958
Instructor Consent Required
Components: Laboratory, Lecture
Attributes: Technical

PLB 299(4) Course ID:001959
Instructor Consent Required
Components: Laboratory, Lecture
Attributes: Technical

PLS Plant and Soil Science

PLS 190(3) Course ID:016575
Introduction to Paralegal Studies
Introduces state and federal judicial systems and paralegal roles and careers. Emphasizes rules of professional conduct, legal ethics and unauthorized practice of law by non-lawyers. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University

PLS 190(3) Course ID:016948
Legal Ethics
Study, analysis and application of codes of professional responsibility and standards of conduct governing the practice of law in state and federal courts. Semester Hours: 3.0. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: University

PLS 200(3) Course ID:016839
Legal Research and Writing
The sources and techniques of performing legal research using primary and secondary authorities in a law library and online and drafting legal documents in appropriate format with correct citations. Pre-requisite: PLS 190 (A Western Kentucky University Course that Elizabethtown Community and Technical College currently offers). Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University

PLS 250(3) Course ID:018035
Project Lead The Way
Components: Lecture
Attributes: Technical

PLW 125(4) Course ID:006696
Principles of Engineering
Students will be introduced to various types of engineering, engineering communications, various design processes, types of engineering systems, statics, materials, and strength of materials, engineering reliability, and kinematics. Pre-requisite: PLW 100. Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 130(4) Course ID:007197
Principles of Biomedical Sciences
Engages students in the study of human medicine, research processes and an introduction to bioinformatics. Exposes students to investigations of human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. Includes analysis of physiological concepts including: homeostasis, metabolism, inheritance of traits, feedback systems, the relationship of structure to function and defense against disease. Outlines all the courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in the subsequent courses. Pre-requisite: Reading, English, and Mathematics assessment exam scores above the KCTCS transitional developmental level or successful completion of the prescribed transitional course(s). Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 135(4) Course ID:007281
Principles of Human Body Systems
Emphasizes the study of human body systems investigating identity, communication, power, movement, protection, and homeostasis. Uses experiments to investigate the structures and functions of the human body and uses data acquisition software to monitor body functions. Explores science in action as students build organs and tissues on a skeletal model, work through real-world cases, and role-play biomedical professionals to solve medical mysteries. Pre-requisite: PLW 130. Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 140(4) Course ID:015805
Medical Interventions
Focuses on exploring a variety of interventions involved in the prevention, diagnosis and treatment of disease. Uses a How-To manual to introduce prevention and fighting of infection: how to screen and evaluate the codein human DNA to how to prevent, diagnose and treat cancer; and how to prevail when the organs of the body begin to fail. Examines lifestyle choices and preventive measures that influence health and highlights the important roles scientific thinking and engineering design play in the development of interventions of the future areexamined. Pre-requisite: PLW 135. Lecture: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 145(4) Course ID:016454
Biomedical Innovation
Leads students to apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences in a capstone course. Facilitates student design of innovative solutions for the health challenges of the 21st century in areas such as clinical medicine, physiology, biomedical engineering, and public health. Provides the opportunity to work on an independent project with a mentor, or advisor from university, hospital, physician’s office, or health industry provider. Students present their work to an audience including representatives from the local business and healthcare community. Pre-requisite: PLW 140. Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 150(4) Course ID:006687
Digital Electronics
This course uses computer simulations and hands on laboratory to teach students about the logic of electronic circuits and devices. Students will design and construct electronic circuits and devices. Lecture: 1 credit (15 contact hours). Lab: 3 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

PLW 200(4) Course ID:006698
Aerospace Engineering
The major focus of the Aerospace Engineering course is to expose students to the world of aeronautics, flight, and engineering. They will employ engineering and scientific concepts in the solution of aerospace problems. Pre-requisite: PLW-100, PLW-125,
and PLW-150, Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture

PLW 225(4)  Course ID:006699
Civil Engineering and Architecture
The major focus of the Civil Engineering and Architecture TM (CEA) course is a long-term project that involves the development of a local property site. As students learn about various aspects of civil engineering and architecture, they apply what they learn to the design and development of the property. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 250(4)  Course ID:006700
Computer Integrated Manufacturing
The purpose of the Computer Integrated Manufacturing course is to expose students to the fundamentals of computerized manufacturing technology. The course includes: Computer Modeling; CNC Equipment; CAM Software; Robotics; and Flexible Manufacturing Systems. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/ Lab: 4.0 credits (150 contact hours).
Components: 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).
Components: Lecture
Attributes: Technical

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).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 210(3)  Course ID:000630
Introduction to European Politics: East and West
Compasses the political institutions, policy-making processes, citizen participation and political outcomes in Eastern and Western European states. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 212(3)  Course ID:002254
Culture and Politics in Developing Nations
Examines and compares the politics of selected states in Africa, Asia, and Latin America analyzing such issues as culture, ethnicity, language, social class, and ideology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

POL 235(3)  Course ID:000438
World Politics
Examines the most significant problems of world politics, including the fundamental factors governing international relations, the techniques and instruments of power politics, and the conflicting interest inorganizing world peace. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

POL 255(3)  Course ID:000066
State Government
Examines the institutions, political processes, and policies of state governments and the relationships of state governments with other levels of government in the United States. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 271(3)  Course ID:000724
Introduction to Political Behavior
The study of behavior in a political context: the analysis of basic behavioral concepts used in political science such as political roles, group behavior, beliefs, personalities, power, and decision-making. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Other

POL 280(3)  Course ID:005213
Issues in Public Policy
Examines selected major public issues, focusing on their nature, political ramifications, and alternative methods of managing conflict. Includes discussion of varying policies such as poverty, health care, energy, education, race and ethnic relations, and the environment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

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 instructor. Lecture: 1.0 - 3.0 credits (15 contact hours).
Components: Lecture

PSC 112(3)  Course ID:006850
Ceramics I
Introduces traditional clay forming skills, their development and use in the 21st century. Investigates handbuilding, wheelthrowing, and decorative techniques. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 115(3)  Course ID:006851
Ceramics II
Investigates and improves ceramic techniques in wheel throwing, basic glaze applications, surface decoration, and traditional firings. Develops and advances individual techniques and skills. Pre-requisite: PSC 112. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 117(3)  Course ID:006852
Glaze Calculations
Examines glaze calculation, technology and the raw ceramic materials used to create glazes for ceramics art and production. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 210(3)  Course ID:006853
Ceramics III
Investigates Ceramics construction techniques, glazing, surface decoration and firing. Continues to develop and execute individual's aesthetic and functional creativity. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 211(3)  Course ID:006854
Kiln Operation and Design
Introduces various types of kilns and firing operations. Investigates Raku, pit and downdraft gas kiln designs. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 212(3)  Course ID:006855
Ceramic Production Techniques
Examines properties and characteristics of slip casting and mold-making techniques. Emphasize the science

of both traditional and non-traditional ceramics materials and its practical application for the professional ceramics production. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 215(3)  Course ID:006856
Ceramics IV
Investigates production studio pottery and advanced contemporary ceramics through refinement of construction techniques, expanding glaze pallets, and advanced surface decorations and glaze firing. Pre-requisite: PSC 210. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 220(3)  Course ID:006857
Ceramics Product Development
Examines the production studio pottery and advanced contemporary ceramics production. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSG 100(2)  Course ID:005275
Introduction to Polysomnography
Introduces the topics of behavioral and performance objectives, national patient safety goals, medical ethics, infection control, environmental and clinical emergencies, HIPAA, basic medical terminology and skills required for employment. Pre-requisite: Minimum grade of C in (BIO 137 and (MAT 110 or MAT 146 or MAT 150)) or consent of the instructor. Lecture: 2.0 credit (30 contact hours).
Components: Lecture
Attributes: Technical

PSG 111(1)  Course ID:005277
Polysomnography Lab I
Provides practical experience on the equipment used during a standard sleep study. The set-up, calibration, attachment, artifact recognition and troubleshooting of electroencephalographic (EEG), electro-oculographic (EOG), electromyographic (EMG), pulse oximetry (SpO2), body position, airflow, chest and abdominal movement detection equipment as well as the application of positive airway pressure and oxygen used in therapeutic interventions will be included. Laboratory exercises to develop effective patient-technologist interactions will also be included. Laboratory: 1 credit (60 contact hours). Pre-requisite: (BIO 137 and (MT 110 or MT 145 or MT 150)) with a grade of C or better or consent of the instructor. Components: Laboratory
Attributes: Technical

PSG 115(3)  Course ID:005278
Polysomnography Practice I
Provides clinical experience and training in the basic skills required of an entry-level polysomnograph technologist. Includes instrumentation set-up and calibration, recording and monitoring techniques, therapeutic interventions and patient-technologist interactions related to polysomnography. Lecture: 3 credits (45 contact hours). Pre-requisite: (BIO 137 and (MT 110 or MT 145 or MT 150)) with a grade of C or better or consent of the instructor. Components: Laboratory
Attributes: Technical
PSJ 110(3) Course ID:005067
Jewelry/Metals I
Introduces the tools, techniques, and materials of the professional jeweler/metalsmith with an emphasis on the design and production of jewelry projects in precious metals, the basic development of jewelry bench skills, and the discussion of business practices. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PSJ 111(3) Course ID:005068
Jewelry/Metals II
Continues PSJ 110 and a further introduction to the tools, techniques, and materials of the professional jeweler/metalsmith. Emphasizes working more 3-dimensionally and with greater complexity through the design and completion of jewelry projects. Pre-requisite: PSJ 110 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PSJ 116(3) Course ID:005069
Ancient Techniques
Introduces the history, methods and techniques of metalsmithing from antiquity through the 14th century. Emphasizes metalsmithing traditions and classic techniques through the design and completion of jewelry projects and assignments incorporating ancient methods. Pre-requisite: PSJ 110 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PSJ 117(2) Course ID:005070
Metal Casting/Finishing Techniques
Provides the intermediate level jewelry/metalworking student with experiences in the design, modeling, and production of three-dimensional objects by the direct mold and waste mold methods of casting precious metal. Pre-requisite: PSJ 110 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

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-requisite: (PSJ 115 and PSJ 117) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PSJ 211(3) Course ID:005072
Hollowware and Metal Forming
Covers design and technical processes creating functional hollowware. Emphasizes dimensional forming of sheetmetal through raising, sinking, planishing, and antlastic forming, Pre-requisite: 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/metalsmith. Pre-requisite: (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/metalsmith. Pre-requisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSJ 216(3) Course ID:005075
Stone Setting
Covers advanced stone setting methods and techniques for the professional jeweler/metalsmith. Pre-requisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory

PSJ 220(2) Course ID:005076
Jewelry/Metals Product Development
Explores product development and the business concerns of the professional jeweler/metalsmith. Pre-requisite: PSJ 210 and PSJ 212) or Consent of Instructor. Pre-requisite Or Co-requisite: PSJ 215. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory

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-requisite: (PSJ 210 and PSJ 212 and PSJ 220) or Consent of Instructor. Lab: 6 credits (180 contact hours).
Components: Laboratory

PSM 101(3) Course ID:005552
Bluegrass & Traditional Music History I: Geographic Influence & Instrumental Origin
Provides an overview of traditional instruments and their geographic and cultural origins as they relate to the foundation of bluegrass and traditional music genres. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PSM 105(1) Course ID:005553
Recording I
Introduces recording and sound reproduction history, terminology, equipment, and practical session experience. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

PSM 107(1) Course ID:007257
Songwriting I
Introduces the process of creating original melodies and lyrics under the direction of a professional songwriter. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 110(1) Course ID:005554
Individual Stringed Instrument Instruction
Provides an individual stringed instrument study course under the guidance of an experienced professional instructor. Designed to teach performance techniques in a flexible structure. May be repeated with different subtitle for a maximum of 4 credits. Pre-requisite: Audition. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

PSM 111(1) Course ID:005556
Guitar I
Teaches basic fundamentals of bluegrass and traditional chords, rhythm, and simple flat-picking lead along with standard tuning and set-up tips. Pre-requisite: MUS 174 or Consent of Instructor. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

PSM 112(1) Course ID:007258
Individual Stringed Instrument Instruction
Provides an individual stringed instrument study course under the guidance of an experienced professional instructor. Designed to teach performance techniques in a flexible structure. May be repeated with different subtitle for a maximum of 4 credits. Pre-requisite: Audition. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 113(1) Course ID:007259
Guitar II
Teaches basic fundamentals of bluegrass and traditional chords, rhythm and simple flat-picking lead along with standard tuning and set-up tips. Pre-requisite: MUS 174 or Consent of Instructor. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

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 structuring of a band under the guidance of a professional band leader. May be repeated with different subtitle for a maximum of 8 credits. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical
PSM 115(2) Course ID:005555
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 emphasis for a maximum of 8 credits. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

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 composers, 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 127(2) Course ID:007263
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 211(3) Course ID:005560
Introduction to Furniture Making
Introduces tools, techniques, and materials of the professional woodworker, focusing on actual wood production and design process in wood and furniture. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PSM 211(3) 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 213(3) Course ID:005563
Woodworking IV: The Masters & Their Music
Provides a comprehensive study of the music and careers of the icons of bluegrass & traditional musicians from 1936 to present. Requires listening to recordings, reading the primary text, and reading suggested articles from industry periodicals. Pre-requisite: PSM 231. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

PSM 241(3) 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 writing for specific media and multi-writer collaboration. Pre-requisite: PSM 238 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSW 210(3) Course ID:005060
Furniture Making III
Focuses on complicated joinery techniques, machine tool operations, advanced finishing applications, and small business considerations. Pre-requisite: PSM 115 and PSM 116 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PSW 211(3) Course ID:005061
Wood Bending and Veneering
Covers construction and design possibilities through techniques of strip laminating and steam bending to create curved shaped parts in furniture. Includes veneering design and applications. Pre-requisite: (PSM 115and PSM 116) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSW 212(3) Course ID:005063
Chain Design
Focuses on design and construction for good seating requirements based on sound design and structural integrity. Pre-requisite: PSW 117 or Consent of Instructor. Pre-requisite Or Co-requisite: PSW 211. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PSW 215(3) Course ID:005062
Furniture Making IV
Emphasizes special processes of design, production, and cost efficiencies associated with operating a custom furniture studio including marketing and overall business knowledge. Pre-requisite: (PSW 210 and PSW 212) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSW 220(2) Course ID:005064
Furniture/Wood Product Development
Includes applications associated with design and construction possibilities with fabricated products. Focuses on C. N. C. machining and CAD design as well as 32-MM and KD (knock down) systems including architectural woodwork and cabinet design. Pre-requisite: (PSW 210 and PSW 211) or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

PSW 230(6) Course ID:005065
Furniture Making V
Focuses on creating a body of work for exhibition and developing a professional portfolio. Pre-requisite: (PSW212 and PSW 215 and PSW 220) or Consent of Instructor. Lab: 8.0 credits (180 contact hours).
Components: Laboratory
Attributes: Technical
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: ACT, COMPASS, or ASSET scores for college level reading OR completion of Transitional reading course(s). 
Components: Lecture  
Attributes: Other  
Properties: Other  
PSY 213(4)  Course ID:002255  
Research Methods  
Introduces scientific methods to psychological research. Provides practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: DESC 101 or consent of instructor. 
Components: Lecture  
Attributes: Other  
PSY 223(3)  Course ID:000488  
Developmental Psychology  
Introduces descriptive and inferential statistics and written report of research project results. Pre-requisite: PSY 110. Lab: 4 credits (75 contact hours). 
Components: Lecture  
Attributes: Other  
PSY 230(3)  Course ID:000387  
Psychosocial Aspects of Death and Dying  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: DESC 101 or consent of instructor. Lab: 4 credits (75 contact hours). 
Components: Lecture  
Attributes: Other  
PSY 239(3)  Course ID:004818  
Psychology of Aging  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: DESC 101 or consent of instructor. Lab: 4 credits (75 contact hours). 
Components: Lecture  
Attributes: Other  
PSY 298(2)  Course ID:004819  
Essentials of Abnormal Psychology  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: DESC 101 or consent of instructor. Lab: 4 credits (75 contact hours). 
Components: Lecture  
Attributes: Other  
PSY 101(0.6)  Course ID:006215  
Foundations of Psychology  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of Transitional reading course(s). Lab: 0.6 credits (9.0 contact hours). 
Components: Lecture  
PSY 110(0.6)  Course ID:006216  
Senses, Perception and Emotion  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: PSY 1110. Lab: 0.6 credit (9.0 contact hours). 
Components: Lecture  
PSY 110(0.6)  Course ID:006217  
Learning, Memory, Intelligence  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: PSY 1110. Lab: 0.6 credit (9.0 contact hours). 
Components: Lecture  
PSY 114(0.6)  Course ID:006218  
Personality & Social Aspects  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: PSY 1110. Lab: 0.6 credit (9.0 contact hours). 
Components: Lecture  
PSY 115(0.6)  Course ID:006219  
Psychological Disorders  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: PSY 1110. Lab: 0.6 credit (9.0 contact hours). 
Components: Lecture  
PSY 1801(1)  Course ID:016655  
Concepts in Human Relations  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: PSY 1110. Lab: 1.0 credit (15 contact hours). 
Components: Lecture  
PSY 1802(1)  Course ID:016656  
Communication and Diversity  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: PSY 1110. Lab: 1.0 credit (15 contact hours). 
Components: Lecture  
PSY 1803(1)  Course ID:016657  
Human Relations & Stress  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: PSY 1110. Lab: 1.0 credit (15 contact hours). 
Components: Lecture  
PSY 2231(0.6)  Course ID:006379  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: PSY 1110. Lab: 0.6 credit (9.0 contact hours). 
Components: Lecture  
PSY 2232(0.6)  Course ID:006380  
Infancy through Early Childhood  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: PSY 2231. Lab: 0.6 credit (9.0 contact hours). 
Components: Lecture  
PSY 2233(0.6)  Course ID:006381  
Middle Childhood & Adolescence  
Introduces practical experience in designing and executing research project using observational, survey, and/or true experimental design methodologies. Pre-requisite: PSY 2231. Lab: 0.6 credit (9.0 contact hours). 
Components: Lecture
of middle childhood and adolescence. Pre-require: PSY 2232. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PTA 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-require: PSY 2233. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PTA 2235(0.6) Course ID:006383
Late Adulthood; Death & Dying
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of late adulthood. Emphasizes theory related to death and bereavement. Pre-require: PSY 2234. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PTA 225(1) Course ID:006724
Basic Skills for the PTA Lab
Develops introductory patient-care skills such as communication, aseptic technique, body mechanics, wheelchair management, patient transfers, positioning and draping, and vital signs, identification and transcribing of medical orders, body gait training, patient and consumer education. Pre-require: Admission to the PTA Program and completion of BIO 137 with a grade of 'C' or better. Co-require: PTA 125. Lecture: 2 credits (30 contact hours). Lab: 3 credits (90 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

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-require: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 and PTA 126 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-require: [Pathway 1: PTA 160 and PTA 170] OR [Pathway 2: PTA 120, PTA 121 and PTA 170]. Lecture: 3 credits (45 contact hours). Lab: 3 credits (90 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

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, documentation, and selected physical therapy interventions in selected medical and surgical conditions encountered in physical therapy. Pre-require: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 and PTA 125 with a grade of 'C' or better. Co-require: 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 application of knowledge from previous PTA courses and general education coursework. Pre-require: [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-require: [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 290(5) Course ID:004017
Modalities & Procedures in Physical Therapy
Includes the basic physical science principles of selected physical therapy interventions, data collection, and selected physiotherapy interventions including wound therapy, compression therapy, safety procedures, gait training, traction, massage, superficial heat and cold, deep heat modalities, electrophoresis, ultraviolet radiation, hydrotherapy, and documentation. Pre-require: 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-require: PTA 220 and PTA 240. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours).

Components: Laboratory, Lecture

Attributes: Courses 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, electrotherapeutic, biofeedback, traction, and compression therapy. Pre-require: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, PTA 121, PTA 170 with a grade of 'C' or better. Co-require: 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-require 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 therapeutic 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-require: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, PTA 121, PTA 170 with a grade of 'C' or better. Co-require: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202, PTA 240. Student cannot progress to PTA 240 without a grade of 'C' or better in all other co-require courses. Lab: 2.0 credits (30 contact hours).

Components: Laboratory

Attributes: Technical

PTA 220(5) Course ID:004016
Physical Therapy Principles & Procedures
Emphasizes selected physical therapy interventions, documentation, and data collection for management of patients with the following problems: musculoskeletal conditions, pulmonary diseases, pathological gait, balance problems, thermal injuries, arthritis, amputations and correlated diseases. Includes therapeutic exercise, orthotics, prosthetics, wellness, and women’s health issues. Pre-require: 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-require: PTA 200 and PTA 240. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

PTA 222(2) Course ID:006727
Pathology & Rehabilitation of Orthopedic Conditions
Includes the study of orthopedic dysfunction, diagnosis, and selected orthopedic conditions and management of patients with the following problems: musculoskeletal conditions, pathological gait, arthritis, and amputations. Includes the study of wellness and women’s issues, therapeutic exercise, orthotics, and prosthetics. Pre-require: Admission to the PTA Program; Completion of PTA 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-require: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202, and PTA 203, and PTA 240. Student cannot progress to PTA 240 without a grade of 'C' or better in all other co-require courses. Lecture: 2 credits (30 contact hours).

Components: Lecture

Attributes: Technical

PTA 223(2) Course ID:006728
Pathology & Rehabilitation of Orthopedic Conditions Lab
Develops skills in selected physical therapy interventions and data collection for management of patients with the following problems: musculoskeletal conditions, pathological gait, arthritis, and amputations. Includes the study of orthopedic dysfunction, diagnosis, and selected orthopedic conditions and data collection for management of patients with the following problems: musculoskeletal conditions, pathological gait, arthritis, and amputations. Includes the study of wellness and women’s issues, therapeutic exercise, orthotics, and prosthetics. Pre-require: Admission to the PTA Program; Completion of PTA 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-require: PTA 222, PTA 232, PTA 233, PTA 202, and PTA 203 and PTA 240. Student cannot progress to PTA 240 without a grade of 'C' or better in all other co-require courses. Lab: 2 credits (60 contact hours).

Components: Laboratory

Attributes: Technical

PTA 232(3) Course ID:006729
Pathology & Rehabilitation of Neurological & Pediatric Conditions
Focuses on etiology, pathology, progression, prevention, data collection, and selected physical therapy interventions for management of patients of all age groups with disabilities resulting from the following: brain injury, spinal cord injury, and genetic/developmental disorders. Includes balance disorders, normal gait development, and the rationale and techniques of neuromuscular re-education. Pre-require: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 170, and PTA 121 with a grade of 'C' or better. Completion of PTA 170 with a grade of 'P'. Co-require: PTA 222, PTA 232, PTA 233, PTA 202, and PTA 203 and PTA 240. Student cannot progress to PTA 240 without a grade of 'C' or better in all other co-require courses. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical
PTA 233(2) Course ID:006730
Pathology & Rehabilitation of Neurological & Pediatric Conditions Lab
Develops skills in the application of selected physical therapy interventions for patients of all age groups with disabilities resulting from the following: brain injury, spinal cord injury, genetic/congenital, and balance disorders. Includes techniques of neuromuscular re-education.
Pre-requisite: Admission to the PTAProgram; Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a C or better. Completion of PTA 170 with a grade of P.
Co-requisite: PTA 222, PTA 223, PTA 232, PTA 202, and PTA 203, and PTA 240. Students cannot progress to PTA 280 without a grade of C or better in all other 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 of all age groups with disabilities resulting from the following: brain injury, spinal cord injury, and genetic/congenital disorders. Includes balance disorders, normal growth and development, and the rationale and techniques of neuromuscular re-education.
Pre-requisite: Admission to the PTAProgram; Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a “C” or better. Completion of PTA170 with a grade of “P”.
Co-requisite: PTA 222, PTA 223, PTA 232, PTA 202, and PTA 203 and PTA 240. Students cannot progress to PTA 280 without a grade of C or better in all other co-requisite courses. Lab: 2 credits (30 contact hours).
Components: Lecture

PTA 240(2) Course ID:004018
Clinical Practicum II
Incorporates observation of and practice of selected physical therapy interventions and data collection with the application of knowledge from previous/concurrent PTA courses and the education coursework. This coursework entails four consecutive weeks of full-time clinical experience. In order to participate in this experience, the student must be earning a grade of C or better in all co-requisite courses.
Pre-requisite: PTA 201 with a grade of “C” or better; PTA 250 with a grade of “C” or better; PTA 1502 with a grade of “C” or better; PTA 170 with a grade of “P”;
Pre-requisite: Admission to the PTA Program and completion of PTA 1501 and 1502 with a grade of “C” or better.
Co-requisite: PTA 222, PTA 223, PTA 232, PTA 202, and PTA 203. Students cannot progress to PTA 280 without a grade of C or better in all other co-requisite courses.
Components: Lecture Attributes: Technical

PTA 250(5) Course ID:004019
Neurological Rehabilitation in Physical Therapy
Focuses on rehabilitation procedures, including assistive devices, for patients of all age groups with disabilities resulting from brain injury, spinal cord injury, genetic/ congenital disorders, and other neuromuscular disorders. Includes normal growth and development and the rationale and techniques of neuromuscular re-education.
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; Co-requisite: PTA 260. Pre-requisite Or-co-requisite: PTA 280; if taken as a Pre-requisite to PTA 280, must earn a grade of C or better for PTA 250. Lecture: 3 credits (45 contact hours). Laboratory: 2 credits (60 contact hours).
Components: Lecture, Laboratory Attributes: Technical

PTA 254(1) Course ID:006731
Pathology & Rehabilitation of Special Populations & Conditions
Focuses on rehabilitation procedures, including assistive devices, for patients of all age groups with disabilities resulting from brain injury, spinal cord injury, genetic/ congenital disorders, and other neuromuscular disorders. Includes normal growth and development and the rationale and techniques of neuromuscular re-education.
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 Pre-requisite: PTA 201, PTA 203, PTA 222, PTA 232, PTA 233, PTA 202, PTA 203 with a C or better. Completion of PTA 240 with a grade of P. Co-requisite: PTA 255, PTA 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 (15 contact hours).
Components: Lecture Attributes: Technical

PTA 256(2) Course ID:016884
Pathology & Rehabilitation of Special Populations & Conditions
Focuses on rehabilitation procedures, including assistive devices, for patients of all age groups with disabilities resulting from the following: brain injury, spinal cord injury, genetic/ congenital 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

QMS Quality Management Systems

QMS 101(3) Course ID:004464
Introduction to Quality Systems
Students are introduced to fundamental concepts, principles, and practices used to improve quality organizations. The need for organizational change is reviewed and paradigms of quality are introduced. An overview of areas of change, methods of quality planning, and methods for implementing quality policies are provided. Students will practice problem solving techniques, make decisions based on data, work in teams, troubleshoot, and demonstrate knowledge of implementing continuous improvement processes. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

QMS 201(3) Course ID:004465
Customer Service Improvement Skills
Students will develop cognitive processes and behavioral skills needed to improve personal and work group effectiveness. Techniques are discussed and demonstrated in assessing internal and external customer needs and develop plans for delivery of quality customer service. Topics include customer’s point of view, benchmarking quality customer service processes, developing partnerships with customers, measuring customersatisfaction, self-evaluation, personal mission statements, time management, communication and listening techniques, coaching, mentoring, group problem solving, and decision making techniques. Lecture: 3 credits (45 contact hours). Pre-requisite: QMS 101 or Consent of Instructor.
Components: Lecture Attributes: Course Also Offered in Modules, Technical

QMS 292(2) Course ID:000869
Performance Management
Students are introduced to a systematic, data-oriented approach to managing people for maximizing performanceand 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). “M” Attributes: Lecture Components: 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 launch of a project. Promotes skills necessary to improve coordination of organization/departmental resources, create effective teams, operate efficiently in a rapidly changing world, and minimize internal problems of system start ups. Teaches techniques to gain organizational acceptance for projects. Pre-requisite: QMS 101 or consent of instructor. Lecture: 3 Credits (45 contact hours).
Components: Lecture
Attributes: Technical
QMS 220(3) Course ID:004466
Quality Audits
Involves an in-depth examination of the function of planning, organizing, and conducting quality audits. Emphasizes planning, implementing, and reporting results of quality audits and taking corrective action. 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 242(3) Course ID:004468
Statistics for Quality II
Builds upon the foundation of QMS 240 techniques of inferential statistics. Confidence interval estimation, hypothesis testing, regression analysis, ANOVA, and non-parametric tests are developed. Gauging Studies and SPC techniques for short production runs are included. Lecture: 3 credits (45 contact hours). Pre-requisite: QMS 240.
Components: Lecture
Attributes: Technical
QMS 251(3) Course ID:000668
Strategic Quality Planning
Introduces strategic concepts of planning as a proactive catalyst for organizational and quality improvement. Examines the process of envisioning, environmental scanning, mission formulation, and benchmarking. Promotes action planning and leadership for its implementation. Pre-requisite: QMS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
QMS 262(4) Course ID:000696
Design of Experiments
Basic statistical methods are reviewed. Statistical techniques which parallel methods of SPC are introduced. Analysis of variance, 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 optimum 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 299(1-6) Course ID:000537
Instructor Consent Required
Selected Topics in Quality Management Systems: (Topic)
Quality issues selected are considered in this course. Topics vary from semester to semester. This course may be repeated with different topics for a maximum of 6 credits contact hours. Lecture: 1-3 credits (15-90 contact hours). Pre-requisite: Consent of Instructor. Components: Lecture
QMS 101(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 101 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 credits (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 workgroup 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 2021 or consent or instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 2023(0.6) Course ID:005172
Reinforcement Schedules and Unwanted Behavior
A variety of reinforcement schedules will be introduced and a number of procedures will be analyzed in dealing with unwanted behavior. Pre-requisite: QMS 2022 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 2024(0.6) Course ID:005173
Pinpoints and Measurement
Fundamentals of pinpointing, identifying a job’s mission, and understanding effective measurement. Pre-requisite: QMS 2023 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
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 140(4) Course ID:004228
Elementary Modern Standard Arabic
Introduces students to the standard written language of the Arab World. Provides initial emphasis upon the phonology and script, followed by gradual coverage of the grammar, with exercises in reading, writing, pronunciation, and vocabulary building. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Other
RAE 150(4) Course ID:004857
Elementary Chinese I
Introduces basic modes of communication in Chinese. Stresses speaking, listening, reading and writing among 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 system. 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 Respiratory Care Practitioner

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: BIO137 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 anamnesis 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 MAT146 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 aerosolotherapy, 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 BIO137 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 pharmacological agents, their use in the practice of respiratory care for patients with cardiovascular or pulmonary impairment as well as accuracy in drug calculations and delivery. Lecture: 3 credits (45 contact hours). 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 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
Provides an opportunity to participate in the health care team while practicing techniques of basic respiratory care including airway management and bronchial hygiene in the assigned setting. Pre-requisite: RCP 150 with a grade of C or better; Clinical: 2 credits (120 contact hours).
Components: Clinical Attributes: Technical

RCP 175(3) Course ID:003791
Clinical Practice II
Provides an opportunity to participate in the health care team while practicing techniques of respiratory care including advanced airway management and bronchial hygiene in the assigned setting. Pre-requisite: RCP 150 with a grade of C or better; Clinical: 3 credits (180 contact hours).
Components: Clinical Attributes: Technical

RCP 176(2) Course ID:004834
Respiratory Care Practice II
Emphasizes participation in the health care team while practicing techniques of basic respiratory care including airway management and bronchial hygiene. Pre-requisite: [(RCP 110 and RCP 122 and RCP 130) with a grade of C or better] or consent of instructor. Pre-requisite or Co-requisite: RCP 110 (If taken as a Pre-requisite, a grade of C or better is required.) Lecture: 2 credits (120 contact hours).
Components: Clinical Attributes: Technical

RCP 180(3) Course ID:003792
Ventilatory Support
Covers the technological and physiological aspects of mechanical ventilation including the theory of operation, classification, and management of the patient ventilator system. Pre-requisite: RCP 120 and RCP 150 with a grade of C or better. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 185(2) Course ID:004837
Introduction to Mechanical Ventilation
Introduces the technological aspects of mechanical ventilation including the theory of operation, classification and patient-ventilator system checks. Pre-requisite: [(RCP 140 and RCP 176) with a grade of C or better] or consent of instructor. Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 190(2) Course ID:003793
Advanced Ventilatory Support
Addresses advanced concepts in ventilatory support, including physiologic effects, indications, monitoring and management of the patient-ventilator system. Pre-requisite: RCP 180 with a grade of C or better. Lecture: 1.5 credits (22.5 contact hours); Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 195(4) Course ID:004838
Patient-Ventilator System Management
Addresses advanced concepts in ventilatory support including monitoring and management of the patient-ventilator system. Pre-requisite: [(RCP 185 and RCP 201) with a grade of C or better] or consent of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 200(3) Course ID:003794
Clinical Practice III
Provides practice in adult mechanical ventilation procedures and airway management in the critical care setting and performance of other respiratory care skills. Pre-requisite: RCP 175 with a grade of C or better. Clinical: 3 credits (180 contact hours).
Components: Clinical Attributes: Technical
RCP 228(2)  Course ID:003800
Preventive and Long-Term Respiratory Care
Covers prevention of cardiopulmonary disorders and care of individuals with long term cardiopulmonary disability. Addresses psychosocial and physical needs of clients with emphasis on improving the quality of life and cardiopulmonary reserve. 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 204(3)  Course ID:004844
Advanced Cardiopulmonary Assessment
Addresses cardiopulmonary assessment including hemodynamic monitoring, pulmonary and cardiac 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 credits (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 245(2)  Course ID:004845
Advanced Cardiac Life Support
Focuses on managing acute cardiovascular emergencies including cardiac arrest, acute myocardial infarction and stroke. Students demonstrating essential knowledge and skills as obtaining 85% or better on the written exam will receive an American Heart Association ACLS provider card. Lecture: 1.5 credits (22.50 contact hours). Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 250(3)  Course ID:003801
Clinical Practice V
Prepares students to participate in effective and efficient planning, managing and delivering respiratory care to diverse client populations in various settings. Pre-requisite: RCP 225 with a grade of C or better. Clinical: 3 credits (180 contact hours).
Components: Clinical Attributes: Technical

RCP 251(4)  Course ID:004843
Respiratory Care Practice V
Prepares students to plan, manage, and deliver respiratory care to diverse client populations in various settings. Enables students to practice mechanical ventilation techniques and observe/practice techniques of advanced life support. Pre-requisite: [RCP 195 and RCP 210 and RCP 212 and RCP 226] with a grade of C or better or consent of Instructor. Clinical: 4 credits (240 contact hours).
Components: Clinical Attributes: Technical

RCP 280(1)  Course ID:004846
Respiratory Care Seminar
Analyzes material previously studied in the program and prepares students for the National Board for Respiratory Care examination. Addresses job seeking skills. Pre-requisite: [RCP 200 and RCP 210 and RCP 212 and RCP 225] with a grade of C or better or consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

RDG 202(3)  Course ID:002286
Improved College Reading
Improves proficiency in reading comprehension, vocabulary, and critical thinking skills, and prepares students for college and career reading through individualized and/or group instruction practice. 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 304(0.75)  Course ID:006744
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: 0.75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading

RDG 301(0.75)  Course ID:006741
Critical Reading
Uses active learning, prior knowledge, and metacognitive strategies to quickly enhance comprehension. Use secondary 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: 0.75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading

RDG 302(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 200. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading

RDG 303(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 200. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading

RDG 304(0.75)  Course ID:006744
Words and Visual Elements
Construct meaning from word parts, context clues, connotation, and denotation for accurate comprehension of text. Evaluates word combinations to determine the author’s view, tone, and purpose for writing the text. Infer meaning from visual elements such as diagrams, charts, and photos. Pre-requisite: As determined by KCTCS Placement Policy or completion of RDG 200. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading

RDG 1851(0.75)  Course ID:006933
Critical Reading
Apply Active Reading, Metacognitive processes and analyze common text structures and supporting details to improve basic critical reading skills. Pre-requisite: current KCTCS placement policy. Lecture: .75 credit (11.25 contact hours).
Components: Lecture

RDG 1852(0.75)  Course ID:006934
Valid Supports
Identify patterns of writing and discern facts from opinions to determine valid supports. Use patterns and valid supports to organize ideas for a summary or concept map. Pre-requisite: RDG 1852. Lecture: .75 (11.25 contact hours).
Components: Lecture
REAL Estate

REA 100(3) Course ID:000906
Real Estate Principles I
Introduces real estate as a business and as a profession, designed to acquaint the student with the wide range of subjects necessary to the practice of real estate. Includes license law, ethics, purchase and listing agreements, brokerage, deeds, financing, appraisals, mortgages, and real estate property management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 120(3) Course ID:000365
Real Estate Marketing
Includes marketing and selling of real estate properties. Emphasizes qualifying prospects, preparing for property 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, condemnations, and listings, and the factors that contribute to the value of real estate. Includes three methods of estimating value with emphasis given to market data approach. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 122(3) Course ID:000575
Construction and Blueprints
Includes the basic concepts of construction, design, and blueprint reading. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 200(3) Course ID:008005
Real Estate Principles II
Continues Real Estate Principles I with emphasis on license law, finance, property management, marketing, land planning and development, brokerage management, fair housing, and appraising. Pre-requisite: REA 100. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 201(3) Course ID:000915
Property Management
Examines the basics of managing income-producing real property. Includes management plans, tenant selection, marketing and advertising, accounting methods, net operating income statements, maintenance, and the landlord. Tenant Act. Pre-requisite: REA 100. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 202(3) Course ID:008875
Real Estate Investments I
Introduces various types of real estate investments. Includes a comparison of investments in real estate with other types of investments. Covers basic fundamentals of investment analysis and terminology. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 203(3) Course ID:000527
Commercial and Industrial Property
Covers classifications of commercial and industrial properties. Includes investment, environment, financing, taxes, depreciation, ownership, cash flow projection, and discount analysis. Integrates computer applications. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 204(3) Course ID:000825
Land Planning and Development
Includes the specialized field of land planning and development with emphasis on new home construction. Includes market research, site selection and analysis, regulations, financing, earthwork, streets, and landscaping. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 205(3) Course ID:000620
Farm Brokerage
Includes farm brokerage and specific subjects relating to the sale of farm property. Covers listing, prospecting, showing, financing, negotiating and closing the farm sale as well as the duties of the farm manager. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 211(3) Course ID:000194
Real Estate Investments II
Includes an analysis of operations and cash flow with detailed instruction on the use and calculation of internal rate of return, financial management rate of return, operational and feasibility analysis, and model investment projections. Pre-requisite: REA 202. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 220(3) Course ID:000886
Real Estate Brokerage Management
Includes basic real estate principles and theories as they apply to real estate brokerage management. Includes legal and work environment; brokerage management concepts; employment agreements; personnel selection, compensation, and management; policy manuals; listing and marketing management; and financial control. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 221(1) Course ID:004772
Basic Income Approach to Property Valuation
Provides students with a foundation in the concepts and procedures necessary in the appraisal of real estate property. Explores how Gross Potential Income is obtained by market analysis and research, how and where to obtain all operating expenses being generated by an income-producing property, how to develop marketable Capitalization Rate, and how to utilize Direct Capitalization Methods. Pre-requisite: REA 121 or Appraiser’s license. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

REA 222(1) Course ID:004773
Uniform Standards of Professional Appraisal
Provides an understanding and appreciation of the Uniform Standards of Professional Appraisal Practice (USPAP) and how these standards are 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
Attributes: Technical

REA 225(3) Course ID:000432
Real Estate Finance
Examines all aspects of real estate finance including financial instruments, financial institutions, buyequivalencies, and mortgage markets. Includes governmental influence, risk analysis, and financing offiome-producing properties. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 226(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/issuaries, 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, as well as to add/replace 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. Lecture: 1-3 credits (15 contact hours).

Components: Lecture

REL Religious Studies

REL 101(3) Course ID:000916
Introduction to Religious Studies
Introduces students to the study of religion, emphasizing the varieties, differences, and similarities of religious experience and expression. Examines the interaction between religious experience and expression and social and cultural contexts through study of selected examples. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

REL 120(3) Course ID:005282
Introduction to the Old Testament
Introduces books of the Hebrew Bible (Old Testament) using knowledge of literary forms as well as historical and cultural backgrounds to aid in the interpretation of the religious and philosophical meanings of the text. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

REL 121(3) Course ID:005283
Introduction to the New Testament
Introduces New Testament using knowledge of literary forms as well as historical and cultural backgrounds to aid in the interpretation of the religious and philosophical meanings of the text. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

REL 130(3) Course ID:000360
Introduction to Comparative Religion
Introduces students to a comparative analysis of world religions, emphasizing beliefs, rituals, art/expressions, and cultural and social organization. Includes both Eastern and Western religions. (Same as ANT 130). Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: ANT 130

REL 135(3) Course ID:000763
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 otherprevailing social, cultural, and political institutions within this time frame. 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 majorreligious
traditions from both Eastern and Western Religions. Considers the lives, sacred stories, dogma and texts of central religious figures as part of the context for moral thinking in a global setting. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

REL 170(3) Course ID:000523
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: Course Lecture Equivalents: PH 170
Attributes: All - Arts and Humanities, Other

REL 240(3) Course ID:006945
Life and Teaching of Jesus
Investigates the life and teachings of Jesus of Nazareth through a critical analysis of the ancient sources and modern scholarly reconstructions. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

REL 241(3) Course ID:006946
Life and Letters of Paul
Presents the person and thought of the Apostle Paul in social, cultural, political, philosophical, and theological context. Investigates Paul’s ethics and his views as preserved in the Christian New Testament. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REL 299(3) Course ID:006968
Special Topics in Religion: Topic
Examines special topics in Religion. Includes but not limited to individual religious figures, movements, sacred writings, religious traditions and selected eras. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

REL 1301(1) Course ID:007323
Introduction to Religion
Introduces students to the relationship between religion, society, and the individual. Explores basic precepts of world religions through their socio-cultural development. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

REL 1302(1) Course ID:007324
Major Eastern Religions
Identifies belief systems and ritual expressions of major Eastern religions. Analyzes the impact on the individual and society. Pre-requisite: REL 1301. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

REL 1303(1) Course ID:007325
Major Western Religions
Identifies belief systems and ritual expressions of major Western religions. Analyzes the impact on the individual and society. Pre-requisite: REL 1301. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

SCI Science

SCI 295(3) Course ID:005237
Scientific Investigations
Real-time, hands-on research projects are carried out using the scientific method. Results of research projects may be presented at the Conference for Student Research, or other scientific meetings. Students prepare research projects for inclusion in a Handbook of Procedures Using the Scientific Method. 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

SOC Student Development

SDC 100(1) Course ID:004847
College Survival Seminar
This course is designed to introduce new students to college in order to facilitate a successful college experience. Students will discover campus resources and support services available to them. Students will be introduced to career and life planning, study strategies, coping skills (i.e., stress management, interpersonal relationships), team projects, activities aimed at self-discovery, and issues that impact college campuses and our global society that are important to the development of the modern college student. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Other

SDC 102(1) Course ID:004848
Stress Management
Students will review various physiological and psychological approaches to stress with an emphasis on creating an awareness of how to change and manage their responses to stressful situations. Options and appropriate exercises for coping with anxiety will be presented. Topics will include time management, cognitive restructuring, health, wellness and relaxation training. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Other

SDC 104(1) Course ID:006187
Transfer Planning
Increases knowledge, personal awareness, and self-efficacy related to the transfer process after completion of at least 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 four-year institutions. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

SDC 105(1) Course ID:004849
Career Planning Seminar
Students will become more knowledgeable about themselves and career options. Self-assessments and vocational inventories measuring interests, work values, skills and abilities will be administered to students. Students will learn how to research careers, career alternatives and employment trends. Topics will include goal setting, decision-making and employability skills. Students will complete a personal career plan at the conclusion of the course. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

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-assessment, employability skills (i.e., the application process, resume writing, interviewing, and follow-ups), and the job market and job search strategies. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

SED Special Education

SED 101(3) Course ID:000923
Sign Language I
Includes a functional-norational approach to a beginning competency in Sign Language. Incorporates syntax, grammar, non-manual markers (behaviors) of sign language, and cultural information. (After an initial orientation period, no verbal communication will be used in the classroom.) Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

SED 102(3) Course ID:000804
Sign Language II
Includes a functional-norational approach designed to follow SED 101 that will enhance student’s knowledge of Sign Language and expand their understanding and appreciation of the people who use it. Pre-requisite: SED 101. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

SED 203(3) Course ID:000530
Sign Language III
Emphasizes the practical application of signing, skills, development of cross-cultural communication abilities and vocabulary expansion. Reviews linguistic information and introduces additional linguistic materials. Pre-requisite: SED 102. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

SED 204(3) Course ID:000833
Sign Language IV
Continues the expansion of sign vocabulary, sharpening of conversational skills including fingerspelling and numbers, semantics, morphology, syntax and other sign language features applied to conversational settings. Pre-requisite: SED 203. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

SET Small Engine Repair

SET 100(3) Course ID:002002
Introduction to Small Engine Repair
This course introduces the student to small engines and their various applications. Also included are the identification and demonstration of hand tools, special tools, and measuring tools. It covers the selection and use of shop manuals and applying safety procedures when working with small engines. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 110(3) Course ID:002003
Basic Small Engine Theory
This course introduces the student to the principles of construction and operation of internal combustion engines including the definitions of the following trade terms: valve overlap, reed value, two-stroke cycle engine and four-stroke cycle engine. Co-requisite: SET 100. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 111(1) Course ID:002004
Basic Small Engine Lab
This course provides applications of the theory presented in SET 110. It includes hands-on experience, step-by-step procedures for disassembling engines, identification of engine components, inspection of parts, performing precision measurements on crankshaft, cylinder bore and valves, and the reassembly of the engines. Co-requisite: SET 110. Laboratory: 1 credit (45 contact hours).

Components: Lecture
Attributes: Technical

SET 116(3) Course ID:002005
Introduction to Marine Technology
This course introduces the student to outboard and inboard motors and boats, safety practices and the operation of
two-cycle and four-cycle motors. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 117(2) Course ID:002006
Marine Electrical and Fuel Systems
This course presents electrical theory and applications for the marine technician including the marine battery, starter systems, alternator charging systems, and fuel systems. Lecture: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

SET 118(3) Course ID:002007
Powerhead Overhaul
This course presents instruction in overhauling two-cycle engines and repairing and/or replacing ignitions systems. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 119(1) Course ID:002008
Powerhead Overhaul Lab
This course presents hands-on experience in overhauling two-cycle motors, tuning-up motors and repairing and/or replacing ignitions systems. Co-requisite: SET 118. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SET 120(3) Course ID:002009
Mid-Section, Lower Unit and Trim/Tilt
This course presents the theory and application necessary to repair and/or replace parts in the mid-section, lower unit, and trim/till systems in marine applications. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 121(2) Course ID:002010
Mid-Section, Lower Unit and Trim/Tilt Lab
This course presents hands-on instruction in the theory necessary to repair and/or replace parts in the mid-section, lower units, and trim/till systems in marine applications. Co-requisite: SET 120. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

SET 122(3) Course ID:002011
Four-Cycle Engine/Stern Drive
This course presents the theory and application of repair and overhaul methods for the four-cycle engines, and how to make repairs of various stern drive systems. Prerequisite: None. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 123(1) Course ID:002012
Four-Cycle Engine/Stern Drive Lab
This course presents hands-on training in the theory and application of repair and overhaul methods for four-cycle engines, and how to make repairs of various stern drive systems. Co-requisite: SET 122. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SET 200(3) Course ID:002013
Electrical Systems
This course presents electrical systems and their application. Basic electrical theory, including electrical pressure, current, resistance and power measured in volts, amperes, and ohms is also presented. Ohm’s law will be discussed with its application to electrical circuits. Basic circuits (series, parallel, and combination of series and parallel) will be discussed. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 201(1) Course ID:002014
Electrical Systems Lab
This course presents hands-on training in electrical systems and their application. Basic electrical theory, including electrical pressure, current, resistance and power measured in volts, amperes, and ohms is also presented. Ohm’s law will be discussed with its application to electrical circuits. Basic circuits (series, parallel, and combination of series and parallel) will be discussed. Lecture: 3 credits (45 contact hours).

Components: Laboratory
Attributes: Technical

SET 210(3) Course ID:002015
Ignition/Charging Systems
This course presents ignition/charging systems theory, the principle of operation of a generator/alternator system, and component identification and application. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 211(1) Course ID:002016
Ignition/Charging Systems Lab
This course presents hands-on experience with ignition/charging systems, the principle of operation of an alternator system, and component identification and application. Co-requisite: SET 210. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SET 220(3) Course ID:002017
Fuel Systems
This course introduces fuel systems used on two-cycle and four-cycle engines: the basic types, components, the type of carburetors, the types of fuel filters, and the types of fuel pumps and air filters. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 221(1) Course ID:002018
Fuel Systems Lab
This course provides hands-on experience with fuel systems. The student will diagnose carburetor problems, rebuild diaphragm-type and float type carburetors, test carburetors and make needed adjustments, and adjust the governor according to manufacturers’ specifications on two-cycle and four-cycle engines. Co-requisite: SET 220. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SET 231(3) Course ID:002020
Motorcycle Chassis Systems
After completion of this course, the student will be able to identify front fork components and service procedures for the steering assembly. The student will be able to identify the service requirements for final drives and the front fork. Instruction will be given in the inspection of basic systems, safe handling of brake fluid, replacing brake shoes and pads, and bleeding hydraulic brake systems. Laboratory: 3 credits (135 contact hours).

Components: Laboratory
Attributes: Technical

SET 233(2) Course ID:002021
Carburetors and Fuel Systems
The student will be able to identify parts of a motorcycle carburetor and discuss the components and operations of various carburetor circuits. The student will also be able to remove, clean, and install acarburetor and remove, clean and install a fuel valve. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

SET 235(1) Course ID:002022
Clutches and Starter Systems
Upon completion of this course the student will be able to discuss starter systems found on motorcycles and have a working knowledge of servicing kick and electric starters. The student will also be able to identify parts of a clutch, discuss guidelines for clutch service and be able to remove, disassemble, inspect and reassemble a motorcycle clutch. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SET 237(2) Course ID:002023
Engine Tune-Up
After completion of this course the student will be able to perform motorcycle engine tune-ups including: ignition systems, replacing points and condensers, adjusting and verifying timing and service guidelines. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

SET 238(1) Course ID:002024
Tools and Measurements
After completing this course the student will be able to list and demonstrate the ability to use the tools of the motorcycle technician, including hand tools, power tools, measuring instruments and specialty tools. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SET 240(3) Course ID:002025
Four Stroke Cycle Engine
This course presents the theory, repair and overhaul methods of four-cycle engines. The student will learn to inspect engines for problems, follow service manuals for measuring cylinder bore, piston fit, ring clearance, rod clearance, crankshaft clearance and valve train components. The student will use special tools including acylinder hone, valve guide reamer, valve seat cutter, and valve grinder and demonstrate safety practices while using this equipment. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 241(1) Course ID:002026
Four Stroke Cycle Engine Lab
In this course, students repair and overhaul four-cycle engines, inspect engines for problems, follow service manuals specifications needed for measuring cylinder bore, piston fit, ring clearance, rod clearance, crankshaft clearance and valve train components. Students will use the following special tools: cylinder hone, valve guage reamer, valve seat cutter, and valve grinder. Safety practices will be observed while using the equipment. Co-requisite: SET 240. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SET 250(3) Course ID:002027
Two Stroke Cycle Engine
This course presents the theory, repair and overhaul methods of two-stroke cycle engines. Students learn to inspect engines for problems, follow a service manual for measuring cylinder bore, piston fit, ring clearance, rod clearance, crankshaft clearance and valve training components. This course introduces students to the following special tools: cylinder hone, valve guide reamer, valve seat cutter, and valve grinder. Safety practices will be observed while using equipment. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 251(1) Course ID:002028
Two Stroke Cycle Engine Lab
Students repair and overhaul two-cycle engines. Students disassemble, inspect, and service cylinder, pistons and connecting rod, crankshaft and crankcase assembly, and demonstrate effective safety practices while using special equipment. Students also reassemble and test engines and components to standards set by manufacturer. Co-requisite: SET 250. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SET 255(2) Course ID:002029
Chassis Systems
This class presents hands-on application of the theory, repair, and overhaul methods of manual and hydrostatic transmissions. It includes how to inspect, diagnose, and repair manual and hydraulic steering systems and deck assemblies. The student will also learn how to perform preventative maintenance, adjust wheel bearings, check steering arm and replace and replace...
tires. This course will introduce the student to special tools, tiechangers, and the safety practices associated with the use of this equipment. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

SET 257(1) Course ID:002030
Welding for Small Engines
This class introduces students to the art and science of welding. Students learn to prepare the equipment and perform basic welding operations. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SET 259(2) Course ID:002031
Portable Two Cycle Equipment Lab
This class will enable the student to identify the external parts of the equipment, operate equipment, handle and mix fuel, and transport and handle trimmers and saws. Instruction will be given to identify and diagnose related problems in chain saws, trimmers and other two-stroke cycle equipment. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

SFA 100(1) Course ID:002034
Safety and First Aid
A course designed to teach current strategies relative to designated emergency situations as put forth by the National Safety Council or American Red Cross. The National Safety Council or American Red Cross standardized course qualifies a student for certification in safety and first aid. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

SFA 101(3) Course ID:004735
OSHA, Health, & Environmental Safety
The basics of OSHA compliance in addition to covering the principles of industrial health and safety, environmental regulations, and industrial requirements with a focus on personal safety and health. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 110(3) Course ID:002035
Principles of Surveying
Provides a study of field and office procedures for measuring distances, elevations, and horizontal and vertical angles. Covers Polaris and solar observations, state plane coordinates, control surveys, and public land surveys. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 130(3) Course ID:006733
Land Surveying Graphics
Covers graphical communication in surveying and mapping, fundamentals of projection, map projection theory, 3D viewing, spatial relationships and viewpoints, plats, profiles, cross-sections, sketches for field notes and representations 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) Course ID:002038
Construction Surveying
Provides a study of field and office procedures for the layout of construction sites. Includes theory of construction surveys for route locations, plant site, earthwork calculations, circular curves, lines, and grades. Pre-requisite: SMT 110, or Instructor Consent. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 210(3) Course ID:006734
Advanced Surveying Measurement
Examines the nature of measurements, statistical analysis of random errors in measurements, propagation of errors, survey standards and design specifications, development of coordinate geometry and trigonometric solutions of plane surveying problems, analysis of errors and mistakes in indirect measurements. Pre-requisite: SMT 110. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 220(3) Course ID:004438
Surveying Lab
Investigates field procedures for measuring distances, elevations, horizontal and vertical angles, state plane coordinates and control surveys as they pertain to boundary location, route location, construction and minesurveys. Co-requisite: SMT 160. Laboratory: 3 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

SMT 230(3) Course ID:006735
Land Boundary Location
Examines the role of the surveyor in retranscending 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 250(5) Course ID:006736
Mine Surveying
Introduces the theory and practice of mine surveying and use of survey instruments, for the location of drillholes, bench surveys, layout of blasting patterns, haul road layout, transfer of control from surface to underground, alignment of underground development, recording of survey information, control systems, location and selection of stations, bore hole surveys, and subsidence surveys. Pre-requisite: SMT 130 or Instructor Consent. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 270(3) Course ID:002041
Professional Ethics & Conduct for Land Surveyors
Explores the professional and ethical conduct of the Land Surveyor in areas of building a business, managing employees, communications, project management, and self-management. Pre-requisite: SMT 230, or Instructor Consent. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 280(4) Course ID:004436
Introduction to GIS and GPS
This course provides an overview of the principles and practices of Geographic Information Systems (GIS) and Global Positioning Systems (GPS). The GIS portion of the course will deal with issues of spatial data models, database design, introductory and intermediate GIS operations, and case studies of real world GIS applications. The GPS portion of the course focuses on GIS technology, software applications. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

SMT 290(3) Course ID:004435
Boundary Law
This course is the survey of property law, explaining the creation, description, and maintenance of property boundaries, easements and right-of-ways. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 292(1 - 6) Course ID:004471
Instructor Consent Required

Special Topics
Various topics will be addressed. Laboratory: 1 - 6 credits (45 - 270 contact hours).

Pre-requisite: Permission of Instructor.

Components: Laboratory
Attributes: Technical

SOC 101(3) Course ID:000920
Introduction to Sociology
Introduces concepts and methods of sociology including investigation of socialization, group processes, social inequality, social institutions, and social change. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

SOC 151(3) Course ID:000844
Social Interaction
Explores the fundamental sociological and social psychological processes underlying human interaction. Focuses on the dynamics of symbolic exchange, the social context and processes shaping it, and examines its effects on the formation and maintenance of social and personality systems. Pre-requisite: SOC 101 or PSY 110 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

SOC 220(3) Course ID:000890
The Community
Examines social organization and process in modern communities, both rural and urban; social techniques of community improvement. Pre-requisite: Three hours of sociology or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

SOC 235(3) Course ID:002258
Inequality in Society
Analyzes the nature, development, and persistence of inequality in various societies. Diverse dimensions of inequality are viewed as the basis for a number of specific social problems in Western and non-Western societies. Social origins of inequality are emphasized. Policy implications are addressed. Pre-requisite: Three hours of sociology or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

SOC 249(3) Course ID:002259
Media, Society, and Culture
Examines the interplay between media, culture, and society. Pre-requisite: SOC 101 or permission of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

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STA 200(3) Course ID:006640
Statistics: A Force in Human Judgment
This course is concerned with the interaction of the science and art of statistics with our everyday lives, emphasizing examples from the social and behavioral sciences. The student will not be required to learn mathematical formulas. Topics include the nature of statistics, uses, and misuses of statistics, the scope and limitations of statistics, criteria by which published statistics may be judged, interpretation of probability and the art of decision making. Pre-requisite: Completion of the mathematics basic skills requirement.

Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

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 their formal 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: University Course (University of Kentucky)

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 145 or MAT 150 or equivalent. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: QR - Quantitative Reasoning

STA 215(3) Course ID:006938
Introduction to Statistical Reasoning
Introduction to descriptive statistics, normal distributions, linear correlation and regression, sampling, experiments, chance phenomena, one- and two-sample estimation and hypothesis testing, chi-square tests, and use of statistical software. Pre-requisites: Completion of all developmental requirements (reading, writing, and mathematics). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (Eastern Kentucky University)

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 Modules

STA 291(3) Course ID:006641
Statistical Method
Introduction to principles of statistics. Statistical description of sample data including frequency distributions, measures of central tendency, and measures of dispersion. Theoretical distributions, statistical estimation, and hypothesis testing. Introduction to simple linear regression and correlation. Pre-requisites: MA 113, MA 123 or equivalent. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

STA 296(3) Course ID:016128
Statistical Methods and Motivations
Introduction to principles of statistics with emphasis on conceptual understanding. Students will articulate results of statistical description of sample data (including bivariate, application of probability and distributions, confidence interval estimation and hypothesis testing to demonstrate property contextualization 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, University Course (University of Kentucky)

STA 220(1) Course ID:007406
Descriptive Statistics
Examines descriptive statistics and statistical estimation. Pre-requisite: STA 2201. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

STA 220(2) 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 220(3) 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 and the circulating surgical technologist during a surgical procedure. 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-requisites: Minimum C grade in [BIO 135 or (BIO 137 and BIO 139)] and (AHS 115 or CLA 131 or MIT 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 118); Current CPR certification for Healthcare Professionals. Co-requisite: SUR 101 and SUR 125 and SUR 130. Lecture: 5 credits (75 contact hours).

Components: Lecture
Attributes: Technical

SUR 101(1) Course ID:002047
Surgical Technology Fundamentals Lab
Provides opportunity for demonstration of skills required to perform the patient, operating room, basic equipment, and supplies; and to function as a member of an operating room team. Incorporates OSHA safety standards, aseptic technique, and duties of both the scrubbed and circulating technologist during a surgical procedure. Pre-requisite: Minimum “C” grade in [BIO 135 or (BIO 137 and BIO 139)] and (AHS 115 or CLA 131 or MIT 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 118). Current CPR certification for Healthcare Professionals. Co-requisite: SUR 130. Pre-requisite or Co-requisite: SUR 100 (or SUR 109 and SUR 110). If Prerequisite, the student must achieve a grade of “C” or greater. Lecture: 1.0 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. Pre-requisite: (BIO 130 or BIO 135 or (BIO 137 and BIO 139)) and (AHS 115 or CLA 131 or OST 103) and (AHS 130 or BIO 225 or BIO 227 or BIO 118). Current CPR certification for Healthcare Professionals. All Pre-requisites must be achieved with a grade of C or greater. Co-requisite: SUR 130. Pre-requisite Or Co-requisite: SUR 101. Lab: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SUR 109(3) Course ID:005375
Introduction to Surgical Technology
Provides a brief overview of the history of surgery and an in-depth introduction of the role and responsibilities of the surgical technologists, an integral health care professional in the delivery of perioperative patient care and surgical services, including professional responsibilities, developing a professional resume, legal and ethical considerations, interpersonal relationships, and communication skills. Introduces the basics of biomedical science and identifying information resources. Introduces all-hazards preparation for the surgical technologist, basic principles of aseptic technique, sterilization, surgicalscrub, gown and glove 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 operating setting. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

SUR 110(9) Course ID:005470
Surgical Technology Fundamentals
Incorporates safety, aseptic technique and duties of the scrubbed and the circulating surgical technologist during a surgical procedure. Provides indepth information for the successful preparation, performance, and completion of basic surgical procedures; Addresses specialty areas of general surgery, ob/gyn with attendant specialty equipment; Introduces the theory of abdominal incisions, wound closures, and standard precaution skills in each clinical assignment; Includes biomedical sciences of electricity, physics, and robotics as they pertain to surgical technology. Pre-requisite: Admission to Surgical Technology program, current CPR or BLScertification. SUR 109, AHS 115 or consent. Lecture: 9 credits (135 contact hours).

Components: Lecture
Attributes: Technical

SUR 125(2 - 3) Course ID:002049
Surgical Technology Skills Practicum I

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: Minimum “C” grade in [BIO 135 or (BIO 137 and BIO 139)] and (AHS 115 or CLA 131 or OST 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 118). Current CPR certification for Healthcare Professionals. Co-requisite: SUR 100 - SUR 101. Co-requisite or Pre-requisite: SUR 125. Lecture: 2.0 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. Prerequisite: Minimum grade of “C” in [SUR 100 or (SUR 109 and SUR 110)] and SUR 125 and SUR 130. Co-requisite: SUR 201. Lecture: 9 credits (135 contact hours).
Surgical Technology Skills Practicum II

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 ORCo-requisite: Minimum grade of “C” in SUR 200 and SUR 201. Practicum: 2.0 credits (120 contact hours).

Components: Practicum
Attributes: Technical
Course ID: 004246

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 ORCo-requisite: Minimum grade of “C” in SUR 200 and SUR 201. Practicum: 2.0 credits (120 contact hours).

Components: Practicum
Attributes: Technical
Course ID: 004253

Surgical Skills I

Provides opportunity for application of techniques in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with an emphasis on OSHA standards. Includes sterile and aseptic techniques, surgical team, critical thinking, pharmacology, and infection control. Pre-requisite: SUR 201. Co-requisite: SUR 295. Practicum: 2.0 credits (120 contact hours).

Components: Practicum
Attributes: Technical
Course ID: 016845

Surgical Skills II

Provides opportunity for application of techniques in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with an emphasis on OSHA standards. Includes sterile and aseptic techniques, surgical team, critical thinking, pharmacology, and infection control. Pre-requisite: SUR 201. Co-requisite: SUR 295. Practicum: 2.0 credits (120 contact hours).

Components: Practicum
Attributes: Technical
Course ID: 016846

Surgical Technology Skills Practicum II

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 ORCo-requisite: Minimum grade of “C” in SUR 200 and SUR 201. Practicum: 2.0 credits (120 contact hours).

Components: Practicum
Attributes: Technical
Course ID: 004247

Surgical Distance 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 ORCo-requisite: Minimum grade of “C” in SUR 200 and SUR 201. Practicum: 2.0 credits (120 contact hours).

Components: Practicum
Attributes: Technical
Course ID: 016847

Surgical First Assistant Practicum

Involves advanced training in the preoperative, operative, and postoperative phases of surgery. Exposes student to a 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
Course ID: 006666

Surgical First Assistant Practicum II

Involves advanced training in the preoperative, operative, and postoperative phases of surgery. Exposes student to a 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
Course ID: 016240
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Attributes</th>
<th>Components</th>
<th>Credits</th>
<th>Contact Hours</th>
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<tbody>
<tr>
<td>SWK 260(3)</td>
<td>Crisis Intervention</td>
<td>Technical</td>
<td>Lecture</td>
<td>3</td>
<td>45</td>
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<td>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 100 or PY 110 or permission from instructor. Lecture: 3 credits (45 contact hours).</td>
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<td></td>
<td>Components: Lecture</td>
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<tr>
<td>SWK 200(3)</td>
<td>Developmental Writing for the Workplace</td>
<td>English</td>
<td>Lecture</td>
<td>1</td>
<td>15</td>
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<tr>
<td></td>
<td>This course is designed to allow students to survey grammar and punctuation skills, which are essential to technical communication. Emphasis is on clarity and exactness as required to communicate effectively in today's workplace. Pre-requisite: None.</td>
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<td></td>
<td>Components: Lecture</td>
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<tr>
<td>TEC 200(3)</td>
<td>Technical Communications</td>
<td>English</td>
<td>Lecture, Laboratory</td>
<td>2</td>
<td>125</td>
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<td>Focuses on written and oral communications in a technical environment, including a review of grammar, usage, mechanics, and punctuation. Emphasizes preparing business communications such as letters and application materials, creating technical reports and sets of instructions, creating proposals or presentation materials, and developing appropriate technical communication styles for various audiences. Covers professional use of email, social media, websites, and other electronic resources. Pre-requisite: Placement in college level writing or Consent of Instructor. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td></td>
<td>Components: Lecture</td>
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<td>Laboratory</td>
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<td>TEC 10(3)</td>
<td>Course ID:002071</td>
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<td></td>
<td>Course Title: Technical Communication</td>
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<tr>
<td></td>
<td>Developmental Writing for the Workplace</td>
<td>English</td>
<td>Lecture</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>This course is designed to allow students to survey grammar and punctuation skills, which are essential to technical communication. Emphasis is on clarity and exactness as required to communicate effectively in today's workplace. Pre-requisite: None.</td>
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<td></td>
<td>Components: Lecture</td>
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<tr>
<td>THA 101(3)</td>
<td>Introduction to Theatre: Principles and Practice</td>
<td>Technical, Social Behavior Science</td>
<td>Lecture</td>
<td>1</td>
<td>15</td>
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<td>Cultivates students judgment, perception, and creative response to theatre, emphasizing what and how theatre communicates through examining both processes and products of theatre. Pre-requisite: Consent of Instructor.</td>
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<td></td>
<td>Components: Lecture</td>
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<td>THA 200(3)</td>
<td>Course ID:003810</td>
<td></td>
<td>Lecture</td>
<td>3</td>
<td>45</td>
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<tr>
<td></td>
<td>Introduction to Dramatic Literature</td>
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<td>Provides a study of representative dramatic literature from Greek Antiquity to the present.</td>
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<td>Components: Lecture</td>
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<tr>
<td>THA 226(3)</td>
<td>Course ID:000791</td>
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<td>Lecture</td>
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<td>Acting II: Scene Study (Realism)</td>
<td>Technical, Social Behavior Science</td>
<td>Lecture</td>
<td>1</td>
<td>15</td>
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<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 developing the actor's skills. Pre-requisite: THA 126 or Consent of Instructor. Lecture: 2.0 credit hours (30 contact hours).</td>
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<td>Components: Lecture</td>
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<tr>
<td>THA 227(3)</td>
<td>Course ID:002267</td>
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<td>Lecture</td>
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<td>30</td>
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<td>Acting III: Scene Study (Styles)</td>
<td>Technical, Social Behavior Science</td>
<td>Lecture</td>
<td>2</td>
<td>30</td>
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<td>Introduces the actor to various performance styles other than realism while continuing to develop the actor's skill in analysis and rehearsal. Pre-requisite: THA 226 or Consent of Instructor. Lecture: 2.0 credit hours (30 contact hours).</td>
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<td></td>
<td>Components: Lecture</td>
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</tbody>
</table>
Lab: 1.0 contact hour (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

THA 230(3) Course ID:015598
Unarmed Stage Combat
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: Technical

THA 256(2) Course ID:000717
Stage Electrics
Provides a comprehensive study of sound production and stage lighting in principle and practice. It concentrates on the fundamentals of circuits, instrumentation, and operation of stage lights and sound. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

THA 263(3) Course ID:000111
American Theatre
Survey of 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

TLH Telehealth Technician Assistant

TLH 200(4.5) Course ID:016939
Telehealth Patient Care
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 credit (45 contact hours). Clinical: 1.5 hours (67.5 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

TRU Truck Driving

TRU 100(6) Course ID:002092
Truck Driving
The purpose of the program is to prepare individuals as professional drivers for the truck driving industry. The course content is designed to familiarize students with the fundamental and operational procedures to become professional truck drivers. This is the entire curriculum. It is not divided into individual courses. Pre-requisite: CDL Permit
Components: Laboratory, Lecture
Attributes: Technical

UPH Upholstery

UPH 100(3) Course ID:002093
Introduction to Upholstery Lab
This course introduces the student to the variety of careers in the upholstery business and provides an overview of the industry including furniture manufacturing, furniture reupholstering and repair and employment opportunities. Tools, equipment and techniques used in upholstery are discussed. The terms used in industry are stressed. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

UPH 101(1) Course ID:002094
Introduction to Upholstery Lab
This course provides practical experience in the use of tools, equipment, and techniques of the upholstery industry. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

UPH 110(3) Course ID:002095
Upholstery Fabrics and Materials
This course introduces the student to various materials used in upholstering, the techniques for using each material, selection of upholsteryfabrics and details concerning the usage of each fabric.
Components: Lecture
Attributes: Technical

UPH 111(1) Course ID:002096
Upholstery Fabrics and Materials Lab
This course provides practical experience in the use of upholstery fabrics, material and equipment. Laboratory: 1 credit (45 contact hours).
Components: Lecture
Attributes: Technical

UPH 120(1) Course ID:002097
Furniture Preparation
This course introduces the student to various techniques used in the stripping and repair of furniture frames and to the installation of webbing and springs. Laboratory: 2 credits (90 contact hours).
Components: Lecture
Attributes: Technical

UPH 121(2) Course ID:002098
Furniture Preparation Lab
This course provides practical experience in the use of various techniques used in the stripping and repairing of furniture frames and to the installation of webbing and springs. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

UPH 126(1) Course ID:002100
Pinning Installation Lab
This course provides practical experience in the use of pinning for upholstery purposes. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

UPH 131(4) Course ID:002101
Final Cover Fabrication and Installation Lab
This course provides practical experience in the use of various aspects of padding furniture for upholstery. The methods and materials used in making cushions and techniques and materials used in channeling and tufting processes are also taught in this course. Laboratory: 4 credits (180 contact hours).
Components: Laboratory
Attributes: Technical

UPH 151(2) Course ID:002102
Small Frame Fabrication and Upholstering Lab
This course introduces the student to design and manufacture of small upholstery frames. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

UPH 198(5) Course ID:002103
Practicum I
Practicum provides supervised on-the-job work experience related to the student’s education objectives. Students participating in practicum do not receive compensation. Pre-requisite: Permission of Instructor. Practicum: 5 credits (375 contact hours).
Components: Practicum
Attributes: Technical

VCA Visual Communications Art and Design

VCA 102(3) Course ID:002108
Fundamentals of Drawing
Introduces basic drawing skills and concepts as 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 drawing skills and illustration concepts as they apply to graphic design. Emphasizes how to create form in space and to draw in proper perspective for reproduction purposes. Students must receive a final grade of “C” or better to advance in all Visual Communication courses. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

VCA 106(3) Course ID:002113
Creative Typographical Design
Explores the use of type as a major element of design to solve visual communication problems. Includes the use of layout markers to creatively manipulate type forms and produce interesting, attractive type-only designs. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCA 108(3) Course ID:002110
Digital Color Theory
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 color 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 and enhance digital photographs. Includes discussions on appropriate resolutions and file formats. 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 (60 contact hours).

Components: Lecture
Attributes: Technical

VCA 151(3) Course ID:005382
Digital Filmmaking I
Provides training in non-studio video production and editing. Includes applied aesthetics and production of dramatic, informational or 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 videocoding/production of dramatic, informational or experimental work on video. Pre-requisite Or Co-requisite: VCA160 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 cameras, enlargers, and laboratory equipment in relation to black and white photography. Includes basic photographic methods and skills in acquiring, developing, printing and presentation of photographs. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

VCA 161(3) Course ID: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 graded 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: 2 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, Attributes: Technical

VCA 240(3) Course ID:002123
Package Design
Explores the development of brand identity as it relates to packaging, introduces concepts, theories, terminology, design, and production of hard and soft wall three-dimensional packaging and product labels. Emphasizes 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. Explores 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 Film-Style video production, storytelling, TV commercials, and documentaries. Pre-requisite: VCA 152 with a grade of Cor better or Consent of Instructor. Pre-requisite Or Co-require: VCA 150 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, storytelling, TV commercials, and documentaries. Pre-requisite: VCA 251 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 255(3) Course ID:002120
Corporate Design
Creates and develops a total corporate identity emphasizing relationships between adequate research and development of appropriate concepts for a company image. Students must receive a letter grade of "C" or better. Pre-requisite: VCC 125 and VCC 110. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (75 contact hours/37.5:1 ratio).

Components: Lecture
Attributes: Technical

VCA 260(4) Course ID:000208
Commercial Photography III
Continues Commercial Photography II. Applies principles and techniques with emphasis on digital colorphotographic illustrations captured in the studio and on location. Begins use of lens perspective controls on the camera. Pre-requisite: VCA 161 with a grade of C or better or consent of instructor. Lecture/Lab: 4 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCA 261(4) Course ID:000209
Commercial Photography IV
Continues Commercial Photography III. Emphasizes color photography and color management. Guidance in portfolio development as well as exploration of business practices in photography. Pre-requisite: VCA 260 with a grade of "C" or better or consent of instructor. Lecture/Lab: 4 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCA 270(4) Course ID:000214
Advertising Design III
Emphasizes computer design and layout based on extensive use of the industry standard page layout and drawing programs; and critical thinking for problem solving, production, and production of electronic artwork. Pre-requisite: VCA 171 with a grade of C or greater or Consent of Instructor. Lecture: 2 credits (30 contacthours). Laboratory: 2 credits (60 contact hours/30:1 ratio).

Components: Laboratory, Lecture
Attributes: Technical

VCA 271(4) Course ID:000215
Advertising Design IV
Extends VCA 270 to include creation of a professional portfolio. Pre-requisite: VCA 270 with a grade of C or grade of Consent of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (60 contact hours/30:1 ratio).

Components: Laboratory, Lecture
Attributes: Technical

VCA 280(3) Course ID:000216
Instructor Consent Required
Professional Portfolio Development
Introduces students to proper assembly of a professional portfolio and presentation skills. Students will refine work created in previous classes, identify strengths and weaknesses in their work, create a self-promotional package, attend mock interviews and participate in portfolio exhibit. Students must receive a letter grade of "C" or better or successfully complete this course. Pre-requisite: Permission of Instructor.Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (75 contact hours/37.5:1 ratio).

Components: Laboratory, Lecture
Attributes: Technical

VCA 290(3) Course ID:000205
Instructor Consent Required/Folio Seminar
Practicum
Incorporates and applies skills and techniques previously learned in the classroom and commercial art laboratory. Provides practical experience in a variety of commercial art establishments in the community. Pre-requisite: VCA 280, VCA 261 or VCA 271 with a grade of C or greater or Consent of Instructor. Lecture: 1 credits (15 contact hours) Lab/Practicum: 3 credits (150 contact hours/50:1 ratio).

Components: Laboratory, Lecture
Attributes: Technical

VCC Visual Communications Core

VCC 100(3) Course ID:004455
Introduction to Visual Communication
Introduces the concepts, vocabulary, and processes used in relation to visual communication. Includes variousdisciplines such as advertising and design, multimedia, and printing. Identifies career paths and specific job skills within the visual communication field. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

VCC 105(3) Course ID:004458
Fundamentals of Typography
Explores the use of type as a major element of design. Students become skilled in selecting appropriate typestyles and fonts for a variety of media. Provides experience in using type as a creative tool to producereintersting, type-only designs. Introduces the elements and principles of design. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

VCC 106(3) Course ID:016769
Typography
Explores the use of type as a major element of design. Students become skilled in selecting appropriate typestyles and fonts for a variety of media. Provides experience in using type as a creative tool to producereitersting, type-only designs. Applies elements and principles of design. Students must receive a grade of "C" or better to advance in all Visual Communication courses. Lecture/Lab:
VCC 110(3) Course ID:002111
Design Concepts
Explores in detail the elements and principles of design to develop skills in producing creative ideas and designs for various media forms. Applies concepts in the process of design that includes legal issues, media strategy, and consumer behavior. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 115(3) Course ID:005141
Strategic Concepts
Introduces advertising, promotion, creative and marketing concepts related to the visual communication field. Topics also include legal issues, media strategy, and consumer behavior. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCC 125(3) Course ID:006859
Computer Graphics I
Introduces students to computer applications that are specific to the visual communication industry. Develops primary skills using software applications for page layout, illustration and digital imaging. Students must complete with a final grade of "C" or better to advance in all Visual Communication courses. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 150(3) Course ID:004475
Mac Basics
Provides an introduction to Apple/Mac computer technology. Emphasizes industry specific needs, including hardware and software. Presents basic uses of the Internet, email, file management and computer ethics. This course fulfills the computer/digital literacy requirement. Students must receive a letter grade of "C" or better. Pre-requisite: RDG 020. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Digital Literacy

VCC 166(3) Course ID:001510
Photoshop Basics
Develops skills to digitally manipulate, enhance, and create composite photographs. Introduces raster graphics and their use in the visual communication industry. Creation and manipulation of graphics from simple to increasingly complex images and designs will be the focus of this course. Students must receive a letter grade of "C" or better. Pre-requisite: Digital Literacy. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 200(3) Course ID:002124
Computer Illustration
Develops skills in computer illustration and drawing using industry standard software. Introduces vectorgraphics and their uses in the visual communication industry. Creation of vector graphics from simple to increasingly complex designs will be the focus of this course. Students must receive a letter grade of "C" or better. Pre-requisite: Digital Literacy. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 205(3) Course ID:004454
Introduction to HTML
Introduces the creation of Web sites using hypertext markup language (HTML) and cascading style sheets (CSS). Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCC 210(3) Course ID:002125
Advanced Computer Illustration
Provides students with advanced knowledge and skills in computer illustration. Creation of vector graphics and complex designs will be the focus of this course. Students must receive a letter grade of "C" or better. Pre-requisite Or Co-requisite: VCC 200. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 212(3) Course ID:005589
Vinyl Graphics and Applications
Introduces concepts, vocabulary, and processes used in relation to the design and production of graphics for signage. Introduces knowledge in the operation of wide format printers and vinyl cutters/plotters to create special graphics used for indoor and outdoor advertising. Covers the procedures used to prepare vinyl graphics and substrates for different applications. Students must receive a letter grade of "C" or better. Pre-requisite Or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 214(3) Course ID:005731
Production Design I
Introduces concepts, vocabulary, and processes used in relation to the design and production of graphics for various media and promotional materials. Provides students with knowledge and training of various production requirements along with software applications used to design graphics. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 216(3) Course ID: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 used to design and prepare graphics or artwork. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite Or Co-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 218(3) Course ID: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 basics skills to produce and utilize PDF files. Provides knowledge of the importance of proper imposition and page-layout of various publications. Provides knowledge and training of various finishing and binding techniques used in the industry. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 220(3) Course ID:004473
Instructor Consent Required
Adobe InDesign Basics
Develops skills in page design and layout using Adobe InDesign software. Students will understand apply concepts and mechanics of page layout to produce various publications using graphic design concepts learned. Students must receive a letter grade of "C" or better. Pre-requisite: Digital Literacy. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 230(3) Course ID:004462
Instructor Consent Required
Advanced InDesign
Provides advanced skills in page design and layout using Adobe InDesign software. Design and creation of creativity 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: 3.0 credits (90 contact hours).
Components: 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, packaging, promotional items, and advertising campaigns. Introduces concepts, theories, terminology, and design of corporate logos, packaging, and advertising. Introduces legal requirements within the industry. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 215. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 245(3) Course ID:016771
Graphic Design II
Explores advanced techniques in the creative ideation process to design professional corporate identities, packaging, promotional items, and advertising campaigns. Emphasizes the use of graphics standards for corporate branding. Specifies definitions for the design of packaging and product labels. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 250(3) Course ID:001509
Instructor Consent Required
Computer Graphics II
Provides advanced skills in computer graphics using Adobe InDesign, Photoshop, and Illustrator. Creation of a variety of complex and multi-page documents will be the focus of this course. Students will also gain knowledge in working with PDF files, color separations, preflighting and imposition for printing. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 260(3) Course ID:005142
Advanced Photoshop
Develops advanced skills to digitally manipulate, enhance, and create composite photographs. Applies advanced concepts, principles, 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: 3.0 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 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 the Internship do not receive compensation. Co-Op/Internship: 3 credits (180 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. Students 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 Visual Communications Multimedia
VCM 110(3) Course ID:004453
Fundamentals of Animation
Explores the fundamentals of 2-D animation through history, theory and practical application. Covers the basics of animation, including character design and development, character environment, and storyboarding. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
VCM 115(3) Course ID:004452
2-D Animation
Introduces basic computer animation using industry standard software. Uses software to create 2-D animation for various multi-media functions. Students must receive a letter grade of "C" or better. Lecture: 1.0 credit(15 contact hours); Laboratory: 2.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical
VCM 125(3) Course ID:015851
Foundations of Video Production
Introduces students to the basics of video production and animation. Includes screenwriting, storyboards, and planning a video production and animation project. Familiarizes students with video, lighting, and sound equipment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
VCM 140(3) Course ID:001762
Digital Video
Previews techniques for digital audio and video acquisition, equipment, and software. Emphasis on planning and creating storyboards for digital video projects from conception to final product. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCM 210(3) Course ID:004344
3-D Animation
Introduces the principles of animation. Uses commercial 3-D animation packages and storyboards to produce 3D 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 After Effects. Emphasizes an understanding of pre-production for After Effects, 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
VCM 220(3) Course ID:001767
Webpage Design
Introduces students to principles and elements used in web design. Explores basic web design tools such as mark-up languages, cascading style sheets, and web authoring software. Identifies fundamentals including website layout, navigation, font usage, color schemes, and site structure to create visually-pleasing websites. Students must receive a letter grade of "C" or better. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (75 contact hours/37.5:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical
VCM 225(3) Course ID:005732
Advanced 3-D Animation
Familiarizes students with advanced techniques of computer animation. Covers the production of 3-D animation using advanced lighting and rendering tools, inverse kinematics, and dynamic scene elements. Students must receive a letter grade of "C" or better. Pre-requisite Or Co-requisite: VCM 210. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCM 230(3) Course ID:004345
Advanced Webpage Design
Introduces aesthetic, navigational, accessibility, usability, and interactivity issues for web designers. Pre-requisite: VCM 220 with a grade of C or better or Consent of Instructor. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (75 contact hours).
Components: Laboratory
Attributes: Technical
VCM 240(3) Course ID:004456
Advanced Digital Video
Emphasizes planning and creation of digital video projects through a non-linear editing environment in the context of this course. Deployes audio/video content through various delivery systems. Students must receive a letter grade of "C" or better. Pre-requisite Or Co-requisite: VCM 140. Lecture: 1.0 credit (15 contact hours) Lab: 2.0 credits (75 contact hours/37.5:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical
VCP Visual Communications Printing
VCP 250(3) Course ID:005795
Screen Printing
Includes how to identify and perform the proper methods of the operations of a screen printing process, including registration, placement, screen preparations, artwork preparations, and finishing. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VCP 255(3) Course ID:001508
Instructor Consent RequiredSpecial Topics Lab
This course provides the student with additional hands-on experience. Topic will be specified by instructor. Laboratory: 3 credits (45 contact hours). Course may be scheduled a maximum of three times, with a total of 9 credit hours/135 clock hours. Pre-requisite: Permission of Instructor.
Components: Laboratory
Attributes: Technical
VCP 285(3) Course ID:004536
Instructor Consent RequiredElectronic Prepress
This is a capstone course designed to address the multiple applications of a Digital Production Artist in Visual Communication. Pre-requisite: Permission of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical
VET Veterinary Technology
VET 110(5) Course ID:007425
Introduction to Veterinary Technology
Introduces students to veterinary medicine and technology through the lecture component covering hospital operation, professional standards, and ethics. Introduces the study of breeds and strains of domesticated animals and the basic concepts of animal behavior. Studies the nature and form of medicines and thecalculation of dose and dosages. The lab component teaches and reinforces restraint techniques; lab procedures, equipment identification, medical terminology, and medication administration; and small animal nutrition. Co-requisite: AGR 240; BIO 112; BIO 113. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical
VET 112(4) Course ID:007426
Veterinary Microbiology
Examines the characteristics of microorganisms and their relationships to animal health and diseases. Introduces fundamental microbiological principles and laboratory techniques. Pre-requisite: BIO 112, BIO 113, and VET 110. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
VET 114(5) Course ID:007427
Animal Anatomy and Physiology
Provides a functional integration of basic science and clinical information as it relates to animals in an integrated lecture and laboratory approach, employing the organ system approach, using domestic and laboratory animals as models to discuss anatomy and physiology. Utilizes prospective animal specimens, fresh and preserved, as well as skeletons and models, in the laboratory to reinforce course concepts. Pre-requisite: VET 110. Co-requisite: VET 112. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical
VET 120(2) Course ID:007428
Clinical Practicum I
Provides practical experience in veterinary clinics and/or related facilities; students must receive an average of approximately 12 hours of clinical practicum per week. Pre-requisite: VET 110, 112, and 114. Co-requisite: VET 130. Clinical: 2.0 credits (96 contact hours).
Components: Clinical
Attributes: Technical
VET 130(5) Course ID:007429
Veterinary Lab Procedures I
Introduces the student to essential nursing skills, covers surgical nursing concepts, small and large animal medical nursing, aseptic technique, and surgical instrumentation. The lab component prepares the student to assist the veterinarian in performing surgery by introducing anesthesia and operation of the anesthesiamachine and nursing procedures during the surgical process. Introduces radiographic procedures and c vitual prophyaxis, recognition of dental abnormalities, and charting. Pre-requisite: VET 110, 112, and 114; Co-requisite: VET 120. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical
VET 210(3) Course ID:007430
Pharmacology
Introduces the major drug classifications, covers the use and control of drugs, measurements and conversionfactors, and methods of drug action and interaction used in small and large animal practice. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 220
and VET 230. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

VET 220(5) Course ID:007431
Parasitology and Clinical Lab
Covers the study of internal and external parasites of companion, exotic, and farm animals. Life cycles, diagnostic protocol, control, and treatment of the most common parasites will be discussed. Familiarizes students with laboratory techniques performed in veterinary hospitals and clinics. Examination and testing of blood, feces, urine, and exudates are performed for diagnostic and prognostic purposes. Development of skills necessary to maintain a safe laboratory working environment, institute quality control programs, collect, process, store, and transport clinical biological specimens. Pre-requisite: VET 120 and VET 130 or concurrent. Co-requisite: VET 210 and VET 230. Lecture/Lab: 5.0 credits (135 contact hours).

Components: Lecture
Attributes: Technical

VET 230(5) Course ID:007432
Veterinary Lab Procedures II
Covers development, treatment, prevention, and control of infectious and non-infectious diseases. Develops skills in surgical nursing, anesthesia monitoring, critical care, emergency medicine, and radiograph techniques. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 210 and VET 220. Lecture/Lab: 5.0 credits (135 contact hours).

Components: Lecture
Attributes: Technical

VET 240(5) Course ID:007433
Veterinary Lab Procedures III
Emphasizes lab animal care, advanced radiographic techniques, ultrasound, and clinical pathology, this course a continuation of VET 230. Refines skills introduced in previous courses. Uses field trips to veterinary diagnostic facilities. Pre-requisite: VET 210, VET 220, and VET 230. Co-requisite: AGR 280 and/or VET 250. Lecture/Lab: 5.0 credits (135 contact hours).

Components: Lecture
Attributes: Technical

VET 250(5) Course ID:007434
Clinical Practicum II
Provides practical experience in veterinary hospitals, clinics, and/or related facilities; students complete an average of 16 hours per week. Pre-requisite: VET 210, VET 220, and VET 230. Co-requisite: VET 240. Clinical: 5.0 credits (240 contact hours).

Components: Clinical
Attributes: Technical

VMI Volumetric Medical Imaging

VMI 200(4) Course ID:005199
Sectional Anatomy & Pathology I
The anatomy of the human body will be examined through cross-sectional images from cadavers and CT/MR images. Emphasis will be placed on identifying anatomic landmarks and describing relative anatomic location with appropriate medical terminology. Topics will include: head, neck, spine, thorax, abdomen, pelvis, and upper and lower extremities. Some pathology will be introduced. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours). Pre-requisite: BIO 137 and BIO 139.

Components: Laboratory, Lecture
Attributes: Technical

VMI 201(4) Course ID:005200
Sectional Anatomy & Pathology II
Continuation of Sectional Anatomy and Pathology I with an emphasis on pathology. Topics include: orthopedics, angiography, and endoscopy. Case studies utilized to demonstrate anatomical location and identification of normal/pathologic tissue. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours). Pre-requisite: VMI 200.

Components: Laboratory, Lecture
Attributes: Technical

VMI 210(4) Course ID:005201
Volumetric Medical Imaging I
Software-based course designed to introduce radiological computer post-processing. Mastery of basic functions: enables students to perform reconstruction, segmentation, annotation and analysis of images. Data management and communication will be emphasized throughout the course. Lecture: 1 credit (15 contact hours); Laboratory: 3 credits (90 contact hours). Pre-requisite: VMI 200 or concurrent.

Components: Laboratory, Lecture
Attributes: Technical

VMI 211(4) Course ID:005202
Volumetric Medical Imaging II
Continuation of Volumetric Medical Imaging I focusing on case studies and standard protocols. Students will complete an assigned case study and present it in class. Competency in advanced topics will include: axial manipulations, animations and monitoring pathology. Health Insurance Portability and Accountability Act (HIPAA) compliance issues will be addressed. Lecture: 1 credit (15 contact hours); Laboratory: 3 credits (90 contact hours). Pre-requisite: VMI 201 or concurrent, VMI 210.

Components: Laboratory, Lecture
Attributes: Technical

WGS Womens Studies

WGS 200(3) Course ID:000815
Introduction to Women's and Gender Studies in the Social Sciences
Introduces women's and gender studies from a social science perspective, using a cross-cultural and interdisciplinary approach. Examines issues and problems of women in contemporary society through the lens of race, gender, class, and socio-political spheres. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

WGS 201(3) Course ID:000921
Introduction to Women's and Gender Studies in the Arts and Humanities
Introduces women's and gender studies from a humanities perspective, using a cross-cultural and interdisciplinary approach including art and literature. Examines issues and problems of women in contemporary society through the lens of race, gender, class, and socio-political spheres. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

WLD Welding

WLD 100(2) Course ID:004575
Oxy-Fuel Systems
A working knowledge of oxy-fuel identification, set-up, inspection, and maintenance; consumable identification, selection, and care; principles of operation; and effects of variables for manual and mechanized oxy-fuel cutting, welding, brazing principles and practices, and metallurgy. Shop safety equipment and use are 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, brazewelding, and gouging. Lab: 2 credits (30 hours 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 recurrences 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 students the identification, inspection, and maintenance of SMAW electrodes; principles of SMAW; the effects of variables on the SMAW process to weld plate and pipe, and metallurgy. Lecture: 2 credits (30 contact hours). Co-requisite: WLD 121 or Consent of Instructor.

Components: Lecture
Attributes: Technical

WLD 121(3) Course ID:004578
Shielded Metal Arc Welding Fillet Lab
Provides laboratory experiences in which the student acquires the manipulative skills to perform fillet welds in all positions. Lab: 3 credits (90 contact hours/30:1 ratio) 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. Laboratory: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 120 and 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 GTA weld 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 groovewelds 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).
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: Laboratory 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 on 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: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical
WLD 145(1) Course ID:004585
Gas Metal Arc Welding Aluminum Lab
Teaches welding aluminum using the GMAW process. Fillets and groove welds are made in all positions in bothplate and pipe. Short Circulating 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:004586
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 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: 1 credit (15 contact hours), Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical
WLD 161(1) Course ID:004602
Submerged Arc Welding Lab
Designed to provide the student with a working knowledge of SAW set-up, maintenance, and consumable identification. Includes practice in basic SAW principles and techniques related to the field of study. Laboratory: 1 credit (30 contact hours/30:1 ratio). 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 - 6) Instructor Consent Required
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 credits, lecture. Variables: Lab: Variables. Variables: Pre-requisite: Consent of Instructor.
Components: Lecture Attributes: Technical
WLD 220(2) Course ID:004589
Welding Certification
Provides students with an understanding of welding 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 222(1) Course ID:004590
Welding Certification Lab
Provides students with the 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 223(3) Course ID:004591
Shielded Metal Arc Welding Open Groove Lab
Designed to build upon SMAW Plate Lab I & II. Offers the student the opportunity to advance skills in the practical aspects of vee-but plate welding using SMAW. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 120 or Consent of Instructor.
Components: Laboratory Attributes: Technical
WLD 227(3) Course ID:004592
Shielded Metal Arc Welding Pipe Lab A
Teaches the required manipulative skills for 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 are also included in 2F, 2FR, 4F, and 5F positions. Lab: 3 credits (90 contact hours/30: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
Introduces the student to the myriad skills for arc weld pipe using mild steel electrodes in the 6G position. Laboratory: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 225 or Consent of Instructor.
Components: Laboratory Attributes: Technical
WLD 233(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 position. 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 240 & WLD 131 or Permission of Instructor. Laboratory: 1 credit (30 contact hours).
Components: Laboratory Attributes: Technical
WLD 240(2) Course ID:004586
Materials Technology
Provides the student with a working knowledge of materials used in welding. This class includes materials identification and classification. Metallurgy is included with a detailed analysis of physical, mechanical, and chemical properties. Introduces the student to the application of metallurgy to welding including preheat, interpass temperature, and post-weld heat treatment and their effects on welding and welding’s effect on them. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical
WLD 245(3) Course ID:004604
Gas Metal Arc Welding Pipe Lab A
Acquaints the student with the operation and application of the Gas Metal Arc System for welding 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 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) Course ID:004608
Welding Automation Lab
Provides the student a working knowledge and understanding of robotic welding equipment such as robotic welding systems, bug-o systems, and automated GTA welding systems. Lab: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical
WLD 198(2) Course ID:002176
Technical Drawing and Blueprint Reading
Fundamentals of multiview and pictorial drafting techniques; and reading and interpreting architectural/furniture and cabinet drawings are the focus of this course. Students will apply blueprint reading skills by preparing materials and cutting lists for actual jobs.

Components: Lecture
Attributes: Technical

WMT 110(2) Course ID:002176
Wood Product Manufacturing
Fundamentals of wood processing and an overview of the secondary wood processing industry are covered in this course. The nature of wood, material selection, terminology, safe set-up, and operation of common woodworking equipment will be discussed. Each student will fabricate a wood product while being introduced to common woodworking techniques, as well as mass production concepts related to product engineering.

Components: Lecture
Attributes: Technical

WMT 160(2) Course ID:002178
Wood Finishing
This course is an overview of contemporary spray finishing materials and processes for millwork assemblies. Each student will learn to set-up and troubleshoot a variety of common finishing systems while experimenting with finishing materials and supplies.

Components: Lecture
Attributes: Technical

WMT 198(2 - 4) Course ID:002179
Instructor Consent Required
Practicum
The practicum provides supervised work experience related to the student's educational objective. Students participating in the practicum do not receive compensation. The course may be taken for 2 - 4 credits. 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.

Components: Co-op

WMT 230(2) Course ID:002184
Introduction to Panel Processing
An overview of the terminology, materials, processing equipment and related software utilized by panel/processing manufacturers of residential and commercial case work. Emphasis will be placed on the design and fabrication of frameless cabinetry to the use of panel saws, edgebanders, CNC boring equipment and caselamp’s. Lecture: 2 credits (60 contact hours).

Components: Lecture
Attributes: Technical

WMT 240(4) Course ID:002185
Cabinet Making Technology
This course is an overview of the cabinet and store fixtures industries. Emphasis will be placed on the design and construction of face frame as well as frameless (32mm) systems. Each student will plan and build a vanity, kitchen cabinet or store fixture which utilizes contemporary casework techniques. 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 260(4) Course ID:002187
Millwork Technology
Design of moulding, doors, and door frames; windows; stairs; and mantels are the focus of this course. Emphasis will be placed on construction principles, joinery, and fasteners for millwork assemblies. Each student will build one or more millwork items. Pre-requisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).

Components: Lecture
Attributes: Technical

WMT 270(2) Course ID:002188
Moulder/Grinder Operation
This course is an introduction to the setup, operation, and maintenance of moulding and grinding equipment. The student will use tools, measuring devices and visual inspection techniques to insure quality to customers specifications. Students will set up and operate a moulder or plane, shape and groove woodstock. Students will read work tickets and examine the pattern shape to determine moulder setup procedure and type of woodstock to be cut. Pre-requisite: Permission of the Instructor.

Lecture: 2 credits (60 contact hours).

Components: Lecture
Attributes: Technical

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

ZOO 293(3 - 6) Course ID:005347
Applied Experiences in Zoo Technology
Provides experience working in a fully accredited zoo or animal husbandry. Practicum: 3 - 6 credits (180-360 contact hours).

Components: Practicum
Attributes: Technical
Appendix A

**Determination of Residency Status for Admission and Tuition Purposes**

**13 KAR 2.045.**

RELATETXT: KRS Chapter 13B, 164.020, 164.030, 164A.330(6)

STATUTARY AUTHORITY: KRS 164.020(8)

NECESSITY, FUNCTION, AND CONFORMITY: KRS 164.020(8) requires the Council on Postsecondary Education to determine tuition and approve the minimum qualifications for admission to a state postsecondary education institution and authorizes the Council to set different tuition amounts for residents of Kentucky and for nonresidents. This administrative regulation establishes the procedure and guidelines for determining the residency status of a student who is seeking admission to, or who is enrolled at, a state-supported postsecondary education institution.

Section 1 Definitions

(1) "Academic term" means a division of the school year during which a course of studies is offered, and includes a semester, quarter, or single consolidated summer term as defined by the institution.

(2) "Continuous enrollment" means enrollment in a state-supported postsecondary education institution at the same degree level for consecutive terms, excluding summer term, since the beginning of the period for which continuous enrollment is claimed unless a sequence of continuous enrollment is broken due to extenuating circumstances beyond the student's control, including serious personal illness or injury, or illness or death of a parent.

(3) "Degree level" means enrollment in a course or program that could result in the award of a:
   (a) Certificate, diploma, or other program award at an institution;
   (b) Baccalaureate degree or lower, including enrollment in a course by a nondegree-seeking postbaccalaureate student;
   (c) Graduate degree or graduate certification other than a first-professional degree in law, medicine, dentistry, or "Pharm. D."
   (d) Professional degree in law, medicine, dentistry, or "Pharm. D."

(4) "Dependent person" means a person who cannot demonstrate financial independence from parents or persons other than a spouse and who does not meet the criteria for independence established in Section 5 of this administrative regulation.

(5) "Determination of residency status" means the decision of a postsecondary education institution that may include a formal hearing that results in the classification of a person as a Kentucky resident or as a nonresident for admission and tuition assessment purposes.

(6) "Domicile" means a person's true, fixed, and permanent home and is the place where the person intends to remain indefinitely, and to which the person expects to return if absent without intending to establish a new domicile elsewhere.

(7) "Full-time employment" means continuous employment for at least forty-eight (48) weeks at an average of at least thirty (30) hours per week.

(8) "Independent person" means a person who demonstrates financial independence from parents or persons other than a spouse and who meets the criteria for independence established in Section 5 of this administrative regulation.

(9) "Institution" means an entity defined by KRS 164.001(12) if the type of institution is not expressly stated and includes the Kentucky Virtual University, the Council on Postsecondary Education, and the Kentucky Higher Education Assistance Authority.

(10) "Kentucky resident" means a person determined by an institution for tuition purpose to be domiciled in and a resident of Kentucky as determined by this administrative regulation.

(11) "Nonresident" means a person who:
   (a) Is domiciled outside by Kentucky;
   (b) Currently maintains legal residence outside Kentucky; or
   (c) Is not a Kentucky resident as determined by this administrative regulation.

(12) "Parent" means one (1) of the following:
   (a) A person's father or mother; or
   (b) A court-appointed legal guardian if:
      1. The guardianship is recognized by an appropriate court within the United States;
      2. There was a relinquishment of the rights of the parents; and
      3. The guardianship was not established primarily to confer Kentucky residency on the person.

(13) "Preponderance of the evidence" means the greater weight of evidence or evidence that is more credible and convincing to the mind.

(14) "Residence" means the place of abode of a person and the place where the person is physically present most of the time for a noneducational purpose in accordance with Section 3 of this administrative regulation.

(15) "Student financial aid" means all forms of payments to a student if one 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 living expenses including room, board, maintenance, transportation, and educational expenses including tuition, fees, books, and supplies.

Section 2 Scope

(1) State-supported postsecondary education institutions were established and are maintained by the Commonwealth of Kentucky primarily for the benefit of qualified residents of Kentucky. The substantial commitment of public resources to postsecondary education is predicated on the proposition that the state benefits significantly from the existence of an educated citizenry. As a matter of policy, access to postsecondary education shall be provided so far as feasible at reasonable cost to a qualified individual who is domiciled in Kentucky and who is a resident of Kentucky.

(2) The Council on Postsecondary Education may require a student who is neither domiciled in nor a resident of Kentucky to meet higher admission standards and to pay a higher level of tuition than resident students.

(3) This administrative regulation shall apply to all student residency determinations regardless of circumstances, including residency determinations made by the state-supported institutions for prospective and currently-enrolled students, the Southern Regional Education Board for contract spaces; reciprocity agreements, if appropriate; the Kentucky Virtual University; academic common market programs; the Kentucky Educational Excellence Scholarship Program; and other state student financial aid programs, as appropriate.

Section 3 Determination of Residency Status; General Rules

(1) A determination of residency shall include:
   (a) An initial determination of residency status by an institution during the admission process or upon enrollment in an institution for a specific academic term or for admission into a specific academic program;
   (b) A reconsideration of a determination of residency status by an institution based upon a changed circumstance; or
   (c) A formal hearing conducted by an institution upon request of a student after other administrative procedures have been completed.

(2) An initial determination of residency status shall be based upon:
   (a) The facts in existence when the credentials established by an institution for admission for a specific academic term have been received and during the period of review by the institution;
   (b) Information derived from admissions materials;
   (c) If applicable, other materials required by an institution and consistent with this administrative regulation; and
   (d) Other information available to the institution from any source.

(3) An individual seeking a determination of Kentucky residency status shall demonstrate that status by a preponderance of the evidence.

(4) A determination of residency status shall be based upon verifiable circumstances or actions.

(5) Evidence and information cited as the basis for Kentucky domicile and residency shall accompany the application for a determination of residency status.

(6) A student classified as a nonresident shall retain that status until the student is officially reclassified by an institution.

(7) A student may apply for a review of a determination of residency status once for each academic term.

(8) If an institution has information that a student's residency status may be incorrect, the institution shall review and determine the student's correct residency status.

(9) If the Council on Postsecondary Education has information that an institution's determination of residency status for a student may be incorrect, it may require the institution to review the circumstances and report the results of that review.
An institution shall impose a penalty or sanction against a student who gives incorrect or misleading information to an institutional official, including payment of nonresident tuition for each academic term for which resident tuition was assessed based on an improper determination of residency status. The penalty or sanction may also include:

(a) Student discipline by the institution through a policy written and disseminated to students; or
(b) Criminal prosecution.

Section 4 Presumptions Regarding Residency Status

(1) In making a determination of residency status, it shall be presumed that a person is a nonresident if:

(a) A person is, or seeks to be, an undergraduate student and admissions records show the student to be a graduate of an out-of-state high school within five (5) years prior to a request for a determination of residency status;
(b) A person's admissions records indicate the student's residence to be outside of Kentucky at the time of application for admission;
(c) A person moves to Kentucky primarily for the purpose of enrollment in an institution;
(d) A person moves to Kentucky and within twelve (12) months enrolls at an institution more than half time;
(e) A person has a continuous absence of one (1) year from Kentucky; or
(f) A person attended an out-of-state higher education institution during the past academic year and paid in-state tuition at that institution.

(2) A presumption arising from subsection (1) of this section shall only be overcome by preponderance of evidence sufficient to demonstrate that a person is domiciled in and is a resident of Kentucky.

Section 5 Determination of Whether a Student is Dependent or Independent

(1) In a determination of residency status, an institution shall first determine whether a student is dependent or independent. This provision is predicated on the assumption that a dependent person lacks the financial ability to live independently of the person upon whom the student is dependent and therefore lacks the ability to form the requisite intent necessary to establish domicile. A determination that a student is independent shall be one (1) step in the overall determination of whether a student is or is not a resident of Kentucky.

(2) In determining the dependent or independent status of a person, the following information shall be considered as well as other relevant information available at the time the determination is made:

(a)1. 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
2. Whether the person is no longer claimed by a parent or other person as a dependent or as an exemption for federal and state tax purposes; and
(b) Whether the person has financial earnings and resources independent of a parent other than an independent spouse necessary to provide for the person’s own sustenance.

(3) An individual who enrolls at an institution immediately following graduation from high school and remains enrolled shall be presumed to be a dependent person unless the contrary is evident from the information submitted.

(4) Domicile may be inferred from the student’s permanent address, parent’s mailing address, or location of high school of graduation.

(5) Marriage to an independent person domiciled in and who is a resident of Kentucky shall be a factor considered by an institution in determining whether a student is dependent or independent.

(6) Financial assistance from or a loan made by a parent or family member other than an independent spouse, if used for sustenance of the student:

(a) Shall not be considered in establishing a student as independent; and
(b) Shall be a factor in establishing that a student is dependent.

Section 6 Effect of a Determination of Dependent Status on a Determination of Residency Status

(1) The effect of a determination that a person is dependent shall be:

(a) The domicile and residency of a dependent person shall be the same as either parent. The domicile and residency of the parent shall be determined in the same manner as the domicile and residency of an independent person; and
(b) The domicile and residency of a dependent person whose parents are divorced, separated, or otherwise living apart shall be Kentucky if either parent is domiciled in and is a resident of Kentucky regardless of which parent has legal custody or is entitled to claim that person as a dependent pursuant to federal or Kentucky income tax provisions.

(2) If the parent or parents of a dependent person are Kentucky residents and are domiciled in Kentucky but subsequently move from the state:

(a) The dependent person shall be considered a resident of Kentucky while in continuous enrollment at the degree level in which currently enrolled; and
(b) The dependent person's residency status shall be reassured if continuous enrollment is broken or the current degree level is completed.

Section 7 Member of Armed Forces of the United States, Spouse and Dependents; Effect on a Determination of Residency Status

(1) A member, spouse, or dependent of a member whose domicile and residency was Kentucky at the time of induction into the Armed Forces of the United States, and who maintains Kentucky as home of record and permanent address, shall be entitled to Kentucky residency status:

(a) During the member’s time of active service; or
(b) If the member returns to this state within six (6) months of the date of the member’s discharge from active duty.

(2) A 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.

(a) A member, spouse, or dependent of a member shall not lose Kentucky residency status if the member is transferred on military orders while the member, spouse, or dependent requesting the status is in continuous enrollment at the degree level in which currently enrolled.

(3) A member in the National Guard or civilian employment at a military base shall not qualify a person for Kentucky residency status unless the provisions of subsections (1) and (2) of this section. If a member of the Kentucky National Guard is on active duty status for a period of not less than thirty (30) days, the member shall be considered a Kentucky resident, as shall the spouse of a dependent child of the member.

(4) A person’s residency status established pursuant to this section shall be reassessed if the qualifying condition is terminated.

Section 8 Status of Nonresident Aliens; Visas and Immigration

(1) A person holding a permanent residency visa or classified as a political refugee shall establish domicile and residency in the same manner as another person.

(a) Time spent in Kentucky and progress made in fulfilling the conditions of domicile and residency prior to obtaining permanent residency status shall be considered in establishing Kentucky domicile and residency.

(2) A person holding a nonimmigrant visa with designation A, E, G, H-1, H-4 if accompanying a person with an H-1 visa, I, K, L, N, R, shall establish domicile and residency the same as another person.

(3) A nonimmigrant visa with designation B, C, D, F, H-2, H-3, H-4 if accompanying a person with an H-2 or H-3 visa, J, M, O, P, Q, S, TD, or TN shall not be classified as a Kentucky resident, because that person does not have the capacity to remain in Kentucky indefinitely and therefore cannot form the requisite intent necessary to establish domicile as defined in Section 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 holding a visa as described in subsection (2) of this section, shall be considered as holding the visa of the parent.

(c) A dependent person holding a visa described in subsection (2) of this section or paragraph (a) of this subsection, if a parent is a citizen of the United States and is a resident of and domiciled in Kentucky, shall be a resident of Kentucky for the purposes of this administrative regulation.

(4) A person shall be a Kentucky resident for the purpose of this administrative regulation if the person graduated from a Kentucky high school and:

(a) Is an undocumented alien;
(b) Holds a visa listed in subsections (2) or (3)(a) of this section; or
(c) Is a dependent of a person who holds a visa listed in subsections (2) or (3)(a) of this section.

(5) Except as provided in paragraph (b) of this subsection, a person who has petitioned the federal government to reclassify visa status shall continue to be ineligible until the petition has been decided by the federal government.

(b) A person who has petitioned the federal government to reclassify his or her visa status based on marriage to a Kentucky resident and who can demonstrate that the petition has been filed and acknowledged by the federal government, may establish Kentucky domicile and residency at that time.

Section 9 Beneficiaries of a Kentucky Educational Savings Plan Trust

A beneficiary of a Kentucky Educational Savings Plan Trust shall be granted residency status if the beneficiary meets the requirements of KRS 164A:330(6).
Section 10 Criteria Used in a Determination of Residency Status

(1) 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 a nonstudent for the twelve (12) months immediately preceding the start of the academic term for which a classification of Kentucky residency is sought;

(c) Filing a Kentucky resident income tax return for the calendar year 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.

(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.

(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 the determination has been made.

(b) Notification shall be made by registered mail, return receipt requested.

(c) Notification shall be made within ten (10) calendar days after the deadline for receipt of materials has passed.

(4) The formal hearing conducted by an institution and the final recommended order shall be a final administrative action with no appeal to the Council on Postsecondary Education.

(b) A formal administrative hearing conducted by the Council on 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 determinations by the residency appeals officer. The residency review committee shall make a determination of student residency status and notify the student in writing within forty-five (45) days after receipt of the student appeal;

(3) Establish a formal hearing process as described in Section 14 of this administrative regulation; and

(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.

Section 14 Formal Institutional Hearing

(1) A student who appeals a determination of residency by a residency review committee shall be granted a formal hearing by an institution if the request is made by a student in writing within fourteen (14) calendar days after notification of a determination by a residency review committee.

(2) If a request for a formal hearing is received, an institution shall appoint a hearing officer to conduct a formal hearing. The hearing officer shall:

(a) Be a person not involved in determinations of residency at an institution except for formal hearings; and

(b) Not be an employee in the same organizational unit as the residency 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.)
# Math Course Transitions

**Crosswalk – Mathematics**

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<td>MT 175 Calculus I</td>
</tr>
<tr>
<td>MAT 185 Calculus II</td>
<td>MT 185 Calculus II</td>
</tr>
<tr>
<td>MAT 205 Mathematics For Elementary and Middle School Teachers I</td>
<td>MT 205 Mathematics For Elementary and Middle School Teachers I</td>
</tr>
<tr>
<td>MAT 206 Mathematics For Elementary and Middle School Teachers II</td>
<td>MT 206 Mathematics For Elementary and Middle School Teachers II</td>
</tr>
<tr>
<td>MAT 261 Introduction to Number Theory</td>
<td>MT 261 Introduction to Number Theory</td>
</tr>
<tr>
<td>MAT 275 Calculus III</td>
<td>MT 275 Calculus III</td>
</tr>
<tr>
<td>MAT 285 Differential Equations</td>
<td>MT 285 Differential Equations</td>
</tr>
<tr>
<td>STA 220 Statistics</td>
<td>ST 291 Statistical Methods</td>
</tr>
</tbody>
</table>
## Historical Mathematics Course Transitions

Below is a table clarifying the math course transition that took place Fall 2004. Courses with the MT prefix that are below the 100-level are transitional courses. MT courses between 100 and 139 are specifically designed for occupational/technical programs. Courses numbered 140 and above are designed as transfer courses.

<table>
<thead>
<tr>
<th>New Course</th>
<th>Credit</th>
<th>Prereq. Course</th>
<th>Replaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT 050 Dev. Math Workshop</td>
<td>1-2</td>
<td>None</td>
<td>MAH 065, MTH 199</td>
</tr>
<tr>
<td>MT 055 Pre-Algebra</td>
<td>3</td>
<td>None</td>
<td>MAH 060, MTH 100</td>
</tr>
<tr>
<td>MT 065 Basic Algebra w/Measurement</td>
<td>3</td>
<td>MT 055</td>
<td>MAH 070, MTH 110,</td>
</tr>
<tr>
<td>MT 075 Pre-College Geometry</td>
<td>3</td>
<td>MT 055</td>
<td>MAH 075</td>
</tr>
<tr>
<td>MT 100 College Algebra Workshop</td>
<td>2</td>
<td>MAH 100</td>
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</tr>
<tr>
<td>MT 105 Business Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 121</td>
</tr>
<tr>
<td>MT 110 Applied Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 125, MTH 120, MTH 130, MTH 150</td>
</tr>
<tr>
<td>MT 115 Technical Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 125, MTH 120, MTH 130, MTH 150</td>
</tr>
<tr>
<td>MT 120 Intermediate Algebra w/Applications</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 083, MA 108, MTH 160</td>
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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>
</tr>
<tr>
<td>MT 125 Technical Algebra &amp; Trigonometry</td>
<td>3</td>
<td>MT 065</td>
<td>MTH 170, MTH 175, MTH 101</td>
</tr>
<tr>
<td>MT 139 AAS Mathematics Application: (Topic)</td>
<td>1-3</td>
<td></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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</tbody>
</table>

### Mathematics Crosswalk of Courses for Purpose of Pre-requisites

| MA 110 – Analytical Geometry and Trigonometry | 4      | MT 160 – Pre-calculus | 5 |
| MA 162 – Finite Mathematics and Its Applications | 3      | MT 165 – Finite Mathematics and Its Applications | 3 |
| MA 123 – Elementary Calculus               | 3      | MT 170 – Brief Calculus with Applications       | 3 |
| MA 113 – Calculus I                        | 4      | MT 175 – Calculus I                               | 5 |
| MA 114 – Calculus II                       | 4      | MT 185 – Calculus II                              | 5 |
| MA 213 – Calculus III                      | 4      | MT 275 – Calculus III                             | 4 |
| MA 214 – Calculus IV                       | 3      | MT 285 – Differential Equations                   | 3 |
# Biology Crosswalk

This table includes changes made to Biology courses effective Fall 2010.

<table>
<thead>
<tr>
<th>New Course #</th>
<th>Old Course #</th>
<th>Course Title</th>
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<tbody>
<tr>
<td><strong>Transitional Biology Courses</strong></td>
<td></td>
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</tr>
<tr>
<td>BIO 026</td>
<td>BIO 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>
</tr>
<tr>
<td>BIO 113</td>
<td>BIO 111</td>
<td>Introduction to Biology Lab</td>
</tr>
<tr>
<td>BIO 114</td>
<td>BSL 102</td>
<td>Biology I</td>
</tr>
<tr>
<td>BIO 115</td>
<td>BSL 100</td>
<td>Biology Laboratory I</td>
</tr>
<tr>
<td>BIO 116</td>
<td>BSL 103</td>
<td>Biology II</td>
</tr>
<tr>
<td>BIO 117</td>
<td>BSL 101</td>
<td>Biology Laboratory II</td>
</tr>
<tr>
<td>BIO 118</td>
<td></td>
<td>Microbes and Society</td>
</tr>
<tr>
<td>BIO 220</td>
<td>BIO 204</td>
<td>The Genetic Perspective</td>
</tr>
<tr>
<td>Dropped</td>
<td>BSL 214</td>
<td>Medical Microbiology</td>
</tr>
<tr>
<td>Dropped</td>
<td>BSL 244</td>
<td>Principles of Environmental Science</td>
</tr>
<tr>
<td>Dropped</td>
<td>PGY 206</td>
<td>Elementary Physiology</td>
</tr>
<tr>
<td><strong>General Education Biology Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO 120</td>
<td>BIO 102</td>
<td>Human Ecology</td>
</tr>
<tr>
<td>BIO 121</td>
<td></td>
<td>Introduction to Ecology Laboratory</td>
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<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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<td><strong>Ecology Courses</strong></td>
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<tr>
<td>BIO 130</td>
<td>BSL 109</td>
<td>Aspects of Human Biology</td>
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<td>BIO 135</td>
<td>BSL 107</td>
<td>Basic Anatomy and Physiology w/ Lab</td>
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<tr>
<td>BIO 137</td>
<td>BSL 110</td>
<td>Human Anatomy and Physiology I</td>
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<tr>
<td>BIO 139</td>
<td>BSL 111</td>
<td>Human Anatomy and Physiology II</td>
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<tr>
<td>BIO 140</td>
<td>BIO 106/BSL 140</td>
<td>Botany</td>
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<tr>
<td>BIO 141</td>
<td>BIO 106/BSL 140 and BIO 107</td>
<td>Botany with Laboratory</td>
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<tr>
<td>BIO 142</td>
<td>BIO 104/BSL 160</td>
<td>Zoology</td>
</tr>
<tr>
<td>BIO 143</td>
<td>BIO 104/BSL 160 and BIO 105</td>
<td>Zoology with Laboratory</td>
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<td><strong>Organismal Biology Courses</strong></td>
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<tr>
<td>BIO 150</td>
<td>BIO 150</td>
<td>Principles of Biology I</td>
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<td>BIO 151</td>
<td>BIO 151</td>
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<td>BIO 153</td>
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<td><strong>Biology Majors Courses</strong></td>
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<tr>
<td>BIO 220</td>
<td>BIO 204</td>
<td>The Genetic Perspective</td>
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<td>BSL 214</td>
<td>Medical Microbiology</td>
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<tr>
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<td>BSL 244</td>
<td>Principles of Environmental Science</td>
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<td>PGY 206</td>
<td>Elementary Physiology</td>
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<tr>
<td>BIO 224</td>
<td>BSL 215</td>
<td>Introduction to Molecular and Cell Biology</td>
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<tr>
<td>BIO 225</td>
<td>BSL 212</td>
<td>Medical Microbiology w/ Lab</td>
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<tr>
<td>BIO 226</td>
<td>BIO 208</td>
<td>Principles of Microbiology</td>
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<tr>
<td>BIO 227</td>
<td>BIO 208/209</td>
<td>Principles of Microbiology with Laboratory</td>
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<td><strong>Molecular and Microbiology Courses</strong></td>
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<td>BIO 295</td>
<td>BSL 295</td>
<td>Independent Investigation in Biology</td>
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<tr>
<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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<thead>
<tr>
<th>Approved Course Prefix/Number</th>
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<th>Old Course Prefix/Number</th>
<th>“OLD” Course Title</th>
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<tr>
<td>CHE 120</td>
<td>The Joy of Chemistry*</td>
<td>CHM 101</td>
<td>Chemistry: A Cultural Approach</td>
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<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>
<td>Introductory General and Biological Chemistry</td>
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<td>CHE 140</td>
<td>Introductory General Chemistry*</td>
<td>CHE 104</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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<tr>
<td>CHE 150</td>
<td>Introduction to Organic and Biological Chemistry*</td>
<td>CHE 106</td>
<td>Introduction to Inorganic, Organic, and Biochemistry</td>
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<td>CHE 155</td>
<td>Introduction to Organic and Biological Chemistry Laboratory*</td>
<td>NEW</td>
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<tr>
<td>CHE 160</td>
<td>Preparation for General College Chemistry</td>
<td>CHM 102</td>
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<td>CHE 170</td>
<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>CHE 175</td>
<td>General College Chemistry Laboratory I*</td>
<td>CHM 105</td>
<td>General College Chemistry Laboratory I</td>
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<td>CHE 180</td>
<td>General College Chemistry II*</td>
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<td>CHE 183</td>
<td>General College Chemistry II Workshop</td>
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<td>General College 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>CHE 280</td>
<td>Organic Chemistry II*</td>
<td>CHE 232</td>
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<td>CHE 285</td>
<td>Organic Chemistry Laboratory II*</td>
<td>CHE 233</td>
<td>Organic Chemistry Laboratory II</td>
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<td>Selected Topics in Chemistry: (Topic)</td>
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<tr>
<td>CHE 295</td>
<td>Selected Topics in Chemistry Laboratory: (Topic)</td>
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<td>CHE 299</td>
<td>Laboratory Research in Chemistry: (Topic)</td>
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<td>CHEM 175</td>
<td>Applied General and Organic Chemistry</td>
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*General Education Status
### Agricultural Technology: 2011-2012

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<td>AGR 130</td>
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<td>AGR 140</td>
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<td>AGR 150</td>
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### Art: 2010-2011

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<tr>
<td>AAD 100</td>
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<tr>
<td>ART 100</td>
<td>AE 272</td>
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<td>ART 104</td>
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<td>ART 105</td>
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<td>AH 210</td>
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<td>AH 211</td>
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<td>ART 203</td>
<td>AH 212</td>
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<td>ART 204</td>
<td>AH 213</td>
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<td>ART 208</td>
<td>AE 270</td>
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Crosswalks compiled 2010-11 through 2013-14
### ART 211 Life Drawing
### ART 221 Painting II
### ART 240 Ceramics
### ART 241 Ceramics II
### Dropped AS 102 Visual Exploration I
### Dropped AS 103 Visual Exploration II
### Dropped AS 215 Studio II
### Dropped ATS 299 Art Studio Topics: (Topic)
### Dropped GE 170 Art Appreciation

---

#### Biotechnology: 2011-2012

<table>
<thead>
<tr>
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<tr>
<td>BTN 101 Introduction to Biotechnology</td>
<td>BT 101 Introduction to Biotechnology</td>
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<tr>
<td>BTN 110 Nucleic Acid Methods</td>
<td>BT 110 Nucleic Acid Methods</td>
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<tr>
<td>BTN 201 Biotechnology Techniques I</td>
<td>BT 201 Biotechnology Techniques I</td>
</tr>
<tr>
<td>BTN 202 Biotechnology Techniques II</td>
<td>BT 202 Biotechnology Techniques II</td>
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<tr>
<td>BTN 210 Cell Culture and Function</td>
<td>BT 210 Cell Culture and Function</td>
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<tr>
<td>BTN 220 Immunological Methods</td>
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#### Business Administration Systems: 2011-2012

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<tr>
<td>Dropped</td>
<td>B&amp;E 100 Introduction to Business and Economics</td>
</tr>
<tr>
<td>BAS 120 Personal Finance</td>
<td>BA 120 Personal Finance</td>
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<tr>
<td>Dropped</td>
<td>BA 151 Introduction to Electronic Commerce</td>
</tr>
<tr>
<td>Dropped</td>
<td>BA 152 Introduction to Web Design</td>
</tr>
<tr>
<td>Dropped</td>
<td>BA 153 Intermediate Web Page Design</td>
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<tr>
<td>BAS 155 Personal Selling</td>
<td>BA 155 Personal Selling</td>
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<tr>
<td>BAS 160 Introduction to Business</td>
<td>BA 160 Introduction to Business</td>
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<tr>
<td>BAS 170 Entrepreneurship</td>
<td>BA 170 Entrepreneurship</td>
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<tr>
<td>Dropped</td>
<td>BA 196 Introduction to Food Management Practicum</td>
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<tr>
<td>BAS 200 Small Business Management</td>
<td>BA 200 Small Business Management</td>
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<td>BAS 212 Introduction to Financial Management</td>
<td>BA 212 Introduction to Financial Management</td>
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<td>BAS 250 Business Employability Seminar</td>
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<td>BAS 256 International Business</td>
<td>BA 256 International Business</td>
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<td>BAS 267</td>
<td>Introduction to Business Law</td>
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<td>BAS 274</td>
<td>Human Resources Management</td>
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<td>BAS 280</td>
<td>Business Internship</td>
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<td>BAS 282</td>
<td>Principles of Marketing</td>
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<td>BAS 283</td>
<td>Principles of Management</td>
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<td>BAS 284</td>
<td>Applied Management Skills</td>
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<td>BAS 285</td>
<td>Problems in Marketing and Management</td>
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<td>BAS 287</td>
<td>Supervisory Management</td>
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<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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<td>BAS 290</td>
<td>Management, Ethics, and Society</td>
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<td>BAS 289</td>
<td>Operations Management</td>
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<td>BAS 291</td>
<td>Retail Management</td>
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<td>BAS 293</td>
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<td>BAS 294</td>
<td>Money and Financial Institutions</td>
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<td>International Finance</td>
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<tr>
<td>HOS 100</td>
<td>Introduction to Hospitality Management</td>
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<td>HOS 160</td>
<td>Security for the Hospitality Industry</td>
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<tr>
<td>HOS 200</td>
<td>Cultural Heritage Tourism</td>
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<td>HOS 210</td>
<td>Front Office Operations</td>
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<td>HOS 282</td>
<td>Tourism Marketing</td>
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### Collision Repair Technology: 2011-2012

<table>
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<tbody>
<tr>
<td>CRT 100 Introduction to Collision Repair</td>
<td>ABR 100 Introduction to Auto Body Repair</td>
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<tr>
<td>CRT 130 Non-Structural Analysis and Damage Repair</td>
<td>ABR 130 Non-Structural Analysis and Damage Repair</td>
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<tr>
<td>CRT 131 Non-Structural Analysis and Damage Repair Lab</td>
<td>ABR 131 Non-Structural Analysis and Damage Repair Lab</td>
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<tr>
<td>CRT 150 Painting and Refinishing</td>
<td>ABR 150 Painting and Refinishing</td>
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<tr>
<td>CRT 151 Painting and Refinishing Lab</td>
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<td>CRT 198 Practicum</td>
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<td>CRT 199 Cooperative Education</td>
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<tr>
<td>Dropped</td>
<td>ABR 200 Plastics and Adhesives</td>
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<td>CAD 102 Drafting Fundamentals</td>
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<tr>
<td>CAD 120 Introduction to Architecture</td>
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<td>CAD 201 Advanced 3-D Modeling</td>
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<td>CAD 220 Architectural Design</td>
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<td>CAD 222 Mechanical Design</td>
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<td>CAD 230 Construction Techniques</td>
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<td>CAD 240 Advanced Dimensioning and Measurement</td>
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<td>CAD 252 Commercial Detailing</td>
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<td>CAD 262 Working Drawings</td>
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<td>CAD 291 Special Problems</td>
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<td>CAD 292 Industrial Applications</td>
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<td>CAD 293 Special Problems</td>
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Computer Aided Drafting & Design: 2011-2012
## Computer and Information Technologies: 2012-2013
(Previously listed under Computer Information Technology/Information Technology/Computer Information Systems Technology)

<table>
<thead>
<tr>
<th>New Courses</th>
<th>Courses that are equivalent to New Courses</th>
<th>Courses requiring program coordinator approval for substitution.</th>
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<td>CIT 105  Introduction to Computers</td>
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<td>CIT 120  Computational Thinking</td>
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<td>CIT 130  Productivity Software</td>
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<td>CIT 140  JavaScript I</td>
<td>NIS 152/CIT 140</td>
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<td>CIT 141  PHP I</td>
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<td>CIT 142  C++ I</td>
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<td>CIT 145  PERL I</td>
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<td>CIT 146  Programming I: Language</td>
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<td>CIT 147  Visual Basic I</td>
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<td>CIT 149  Java I</td>
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<td>CIT 157  Web Site Design and Production</td>
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<td>CIT 160  Introduction to Networking Concepts</td>
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<td>CIT 161  Network Fundamentals</td>
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<td>CIT 162  Home and Small Office Networks</td>
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<td>CIT 163  Small-Medium Business or ISP</td>
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<tr>
<td>CIT 164  Introduction to Routing and Switching</td>
<td>IT 223</td>
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<td>CIT 165  Network Design and Support</td>
<td>IT 225</td>
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<td>CIT 170  Database Design Fundamentals</td>
<td>IT 170/ CIT 170/CIS 270</td>
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<td>CIT 171  SQL I</td>
<td>IT 147/CIS 147/CIT 171</td>
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<td>CIT 180  Security Fundamentals</td>
<td>IT 250/CIT 180</td>
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<td>CIT 182  Perimeter Defense</td>
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<td>CIT 184  Attacks and Exploits</td>
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<td>New – Comparable to IT 252</td>
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<td>CIT 210  Routing Protocols and Concepts</td>
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<td>New - Comparable to CIT 281</td>
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<td>CIT 212</td>
<td>Accessing the WAN</td>
<td>IT 222/CIT 283</td>
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<td>CIT 213</td>
<td>MS Client/Server Config</td>
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<td>UNIX/Linux Net Infrastructure</td>
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<td>CIT 221</td>
<td>Computer Graphics</td>
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<td>CIT 223</td>
<td>Computer Animation</td>
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<td>GIS Software Tools</td>
<td>New - Comparable to IT 260</td>
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<td>CIT 229</td>
<td>Selected Topics in GIS</td>
<td>New - Comparable to IT 268</td>
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<tr>
<td>CIT 232</td>
<td>Help Desk Operations</td>
<td>IT 237</td>
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<td>CIT 234</td>
<td>Advanced Productivity Software</td>
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<td>CIT 236</td>
<td>Advanced Data Organization Software</td>
<td>CIS 230/CIT 234 &amp; 236</td>
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<tr>
<td>CIT 241</td>
<td>PHP II</td>
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<td>CIT 242</td>
<td>C++ II</td>
<td>CIS 252</td>
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<tr>
<td>CIT 246</td>
<td>2-D Game Development: Language</td>
<td>New – Comparable to CIS 250 or CIS 255</td>
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<td>CIT 247</td>
<td>Programming II: Language</td>
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<td>CIT 248</td>
<td>Visual Basic II</td>
<td>CIS 248/CIT 248</td>
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<td>CIT 249</td>
<td>Java II</td>
<td>CIS 249/CIT 249</td>
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<td>CIT 253</td>
<td>Data-Driven Web Pages: Topic</td>
<td>IT 235/CIT 253</td>
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<td>Web Server Administration</td>
<td>NIS 275/CIT 255</td>
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<td>CIT 257</td>
<td>Applied Internet Technologies</td>
<td>New – Comparable to IT 291 or IT 295</td>
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<td>CIT 258</td>
<td>Internet Technologies Seminar</td>
<td>CIT 294</td>
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<td>CIT 260</td>
<td>Network Installation and Troubleshooting</td>
<td>CIT 260/NIS 270</td>
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<td>CIT 261</td>
<td>MS Active Directory Services</td>
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<td>MS Network Infrastructure</td>
<td>CIT 262</td>
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<td>Microsoft Server Administration</td>
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<td>MA Application Servers</td>
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<td>CIT 266</td>
<td>MS Enterprise Administration</td>
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<td>CIT 271</td>
<td>SQL II</td>
<td>CIT 271</td>
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<td>CIT 276</td>
<td>3-D Game Development: Language</td>
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<td>CIT 277</td>
<td>Programming III: Language</td>
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<tr>
<td>CIT 278</td>
<td>Visual Basic III</td>
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<table>
<thead>
<tr>
<th>New Courses</th>
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<tbody>
<tr>
<td>CMM 118 Metrology/Control Charts</td>
<td>MTT 118 Metrology/Control Charts</td>
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<tr>
<td>CMM 120 Applied Machining I</td>
<td>MTT 120 Applied Machining I</td>
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<td>CMM 124 Applied Machining</td>
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<tr>
<td>CMM 132 CAD/CAM/CNC</td>
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<td>CMM 138 Intro to Programming &amp; CNC Machines</td>
<td>MTT 138 Intro to Programming &amp; CNC Machines</td>
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<tr>
<td>CMM 150 Shop Theory</td>
<td>MTT 150 Shop Theory</td>
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<td>CMM 151 Machinery’s Handbook and Metallurgy</td>
<td>MTT 151 Machinery’s Handbook and Metallurgy</td>
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<tr>
<td>CMM 152 Jigs, Fixtures and Gaging</td>
<td>MTT 152 Jigs, Fixtures and Gaging</td>
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<tr>
<td>CMM 153 Mold Theory</td>
<td>MTT 153 Mold Theory</td>
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<tr>
<td>CMM 154 Die Theory</td>
<td>MTT 154 Die Theory</td>
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<tr>
<td>CMM 155 Jigs, Fixtures and Gaging Lab</td>
<td>MTT 155 Jigs, Fixtures and Gaging Lab</td>
</tr>
<tr>
<td>CMM 160 Basic Bench and Machine Processes</td>
<td>MTT 160 Basic Bench and Machine Processes</td>
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<tr>
<td>CMM 168 Special Topics in Computerized Manufacturing &amp; Machining</td>
<td>MTT 168 Special Topics in Machine Tool Technology</td>
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**Computerized Manufacturing and Machining: 2012-2013**

(Previously listed under Machine Tool Technology)
### Appendix

<table>
<thead>
<tr>
<th>CMM 169</th>
<th>Special Topics in Computerized Manufacturing &amp; Machining</th>
<th>MTT 169</th>
<th>Special Topics in Machine Tool Technology</th>
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<tbody>
<tr>
<td>CMM 210</td>
<td>Industrial Machining I</td>
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<td>CMM 212</td>
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<td>CMM 218</td>
<td>Advanced Machining Techniques for Manufacturing</td>
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<td>Advanced Industrial Machining II</td>
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<td>CMM 224</td>
<td>Advanced Industrial Machining</td>
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<td>CMM 230</td>
<td>Conversational Programming</td>
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<td>CNC Machines &amp; Coding Practices</td>
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<td>CMM 244</td>
<td>Advance Programming/Setup Practices</td>
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**Cosmetology: 2011-2012**

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<td>COS 135</td>
<td>Individual Requirements I</td>
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<td>COS 205</td>
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**Criminal Justice: 2011-2012**

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<tr>
<td>CRJ 102</td>
<td>Introduction to Corrections</td>
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<td>CRJ 101</td>
<td>Introduction to Criminal Justice</td>
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<td>CRJ 102</td>
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<td>CRJ 218</td>
<td>Police Supervision</td>
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<td>CRJ 107</td>
<td>Introduction to Firearms</td>
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<td>CRJ 110</td>
<td>Principles of Asset Protection</td>
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<td>CRJ 201</td>
<td>Introduction to Criminalistics</td>
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<td>CRJ 202</td>
<td>Issues and Ethics in Criminal Justice</td>
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<td>CRJ 203</td>
<td>Community Corrections: Probation and Parole</td>
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<td>CRJ 204</td>
<td>Criminal Investigations</td>
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<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
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<td>CRJ 210</td>
<td>Physical Security Technology &amp; Systems</td>
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<td>CRJ 211</td>
<td>Liability and Legal Issues</td>
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<td>CRJ 215</td>
<td>Introduction to Law Enforcement</td>
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<td>CRJ 216</td>
<td>Criminal Law</td>
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<td>Criminal Procedures</td>
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<td>CRJ 220</td>
<td>Introduction to Computer Forensics for Criminal Justice</td>
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<td>CRJ 222</td>
<td>Prison &amp; Jail Administration</td>
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<td>CRJ 230</td>
<td>Criminal Justice Courtroom Procedures</td>
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<td>CRJ 231</td>
<td>Legal Aspects of Corrections</td>
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<td>Introduction to Business and Industrial Fraud</td>
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<td>Internship in Criminal Justice</td>
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**Dental Assisting/Dental Hygiene: 2011-2012**

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**Dental Hygiene (BCTC): 2011-2012**
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<td>DMS 109 Sonography I</td>
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<td>DMS 111 Abdominal Synography</td>
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<td>DMS 116 OB/GYN Sonography</td>
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<td>DMS 119 Ultrasonic Physics and Instrumentation</td>
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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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<td>PAR 2302 Clinical Practicum I-B</td>
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<td>EMS 210 Emergency Pharmacology - NEW</td>
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<tr>
<td>EMS 211 Fundamentals Lab - NEW</td>
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<td>EMS 215 Clinical Experience I - NEW</td>
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<td>EMS 220 Cardiovascular Emergencies - NEW</td>
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<td>EMS 275 Seminar in Advanced Life Support (ALS) - NEW</td>
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### Energy Systems: 2011-2012

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<td>Power Plant Chemistry</td>
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<td>Electrical Concepts</td>
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<td>Electrical Machinery and Controls</td>
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<td>ESP 211</td>
<td>Power Plant Operations I</td>
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<td>Power Plant Operations II</td>
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<td>Power Plant Thermodynamics</td>
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<td>Power Plant Operations I: Introduction to Power Plant Operations</td>
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<td>ES 212</td>
<td>Power Plant Operations II: Boilers/Fuel/Air Combustion/Emissions</td>
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<td>ES 213</td>
<td>Power Plant Operations III: Water/Steam/Turbines/Generators</td>
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### Engineering & Electronics Technology (Previously MIT: Engineering Technology): 2011-2012

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### Engineering and Electronics Technology: 2012-2013

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#### Old Courses

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### Foreign Language: 2010-2011

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#### Old Courses

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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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### Industrial Technology: 2012-2013

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## Medical Information Technology: 2012-2013

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## Medical Laboratory Technology: 2013-2014

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| Mining Technology: 2011-2012 |

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### Nuclear Medicine & Molecular Imaging: 2011-2012

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New Courses

| PHI 100 | Introduction to Philosophy: Knowledge and Reality |
| PHI 110 | Medical Ethics |
| PHI 130 | Ethics |
| PHI 150 | Business Ethics |
| PHI 260 | History of Philosophy I: From Greek Beginnings to the Middle Ages |
| PHI 270 | History of Philosophy II: From the Renaissance to the Present Era |

| PHI 100 | Introduction to Philosophy: Knowledge and Reality |
| PHI 110 | Bioethics: Moral Issues in Health Care |
| PHI 130 | Introduction to Philosophy: Morality and Society |
| PHI 150 | Business Ethics |
| PHI 260 | History of Philosophy I: From Greek Beginnings to the Middle Ages |
| PHI 270 | History of Philosophy II: From the Renaissance to the Present Era |

NEW Courses

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<td>Physics and Astronomy for Elementary Teachers</td>
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**NOTE:** POL 271 removed from general education status.

### Professional Studio Artist: 2011-2012

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*Cross-listed with ANT 130
# Theatre: 2010-2011

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# Women’s and Gender Studies: 2010-2011

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Appendix F

Gainful Employment Disclosures

These disclosures provide important information about the educational debt, earnings, and completion rates of students who attend the program. Below you will find links to the GE disclosures for each college.

Ashland Community and Technical College:

Big Sandy Community and Technical College:

Bluegrass Community and Technical College:
http://www.bluegrass.kctcs.edu/Academics/Gainful_Employment_Disclosure_Information.aspx

Elizabethtown Community and Technical College:

Gateway Community and Technical College:

Hazard Community and Technical College:

Henderson Community College:

Hopkinsville Community College:

Jefferson Community and Technical College:

Madisonville Community College:

Maysville Community and Technical College:

Owensboro Community and Technical College:

Somerset Community College:

Southcentral Kentucky Community and Technical College:

Southeast Community and Technical College:

West Kentucky Community and Technical College:
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